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Research Article

Bibliometrics: Sustainable Clean Water Development And Sanitation Indonesia

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Abstract

This research conducted a bibliometric analysis of the sustainability of clean water and sanitation, which is vital for creating a healthy life and fulfilling basic needs for humans. This bibliometric research focuses on seeing research activities worldwide and in Indonesia, using publication data from the Scopus database. The bibliometric analysis used a quantitative approach to analyzing results and provided a representative picture. It is recognized as a practical approach for assessing the output of publications, organization, authorship, and characteristics of research topics. Between 1988 and 2021, efforts to increase interest in clean water schemes have increased, but the number of attempts has not increased dramatically. Instead, studies conducted by academics are expanding.

Keywords: *Sustainable development, clean water, clean water development.*

Introduction

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This research conducted a bibliometric analysis of clean water and sanitation availability, essential for humans' healthy living and basic needs. The focus in bibliometric research is to see research activities, especially in Indonesia, using publication data from the Scopus database. Bibliometrics was first created in 1999 by Prichard (Tang, Liao, Wan, Herrera-Viedma, & Rosen, 2018). Bibliometric research in this article refers to several studies using different analyses. In this article, bibliometric indicators were used, including publications from year-to-year citations (Hirsch, 2005; Irawan, Akbar, Purnomo, & Nurmandi, 2021). In other words, the research method used bibliometric analysis. The published articles often reflect the contribution of the author and the institution, and citations from the published articles often correlate with the quality and are a significant influence. Bibliometric analysis is critical as a basis for study because it is influential in determining the research focus (Gümüş, Bellibaş, Gümüş, & Hallinger, 2020).

Sustainable Development becomes the theme with the 6th goal of ensuring the availability and maintenance of clean water and safe sanitation for everyone. Forty indicators determine eight targets. Clean water and sanitation are basic human needs To achieve clean water and proper sanitation by 2030 (Setty, Jiménez, Willetts, Leifels, & Bartram, 2020). Sustainable development in the environmental sector ensures that all citizens have universal access to clean water and sanitation. These objectives include access to clean drinking water, access to good sanitation, quality of water and waste, and use, maintenance, and conservation of water supplies. The efforts to achieve these goals are described in strategies, initiatives, and events carried out by the government and non-governmental organizations (Bappenas, 2020).

Following are the targets of clean water and sanitation (Bappenas, 2020); first, by 2030, achieve universal and equitable access to safe and affordable drinking water for all; second, by 2030, gain access to adequate and equitable sanitation and hygiene for all and end open defecation, paying particular attention to the needs of women and girls and those in vulnerable situations; third, by 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally; fourth, by 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity; fifth, by 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate; sixth, by 2030, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes; seventh, by 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling, and reuse technologies; eighth, by 2030 support and strengthen the participation of local communities in improving water and sanitation management.

Clean water and sanitation are interesting points to be significantly studied because all living creatures on earth need them (Chaulagain & Parajuli, 2018). The researchers are attracted to managing clean water and proper sanitation, developing a strategy to eliminate severe diseases and fulfilling humans' rights to meet their needs

(Mai, Ngoc Anh, Thao Anh, & Van Minh, 2020). According to (Shrestha, Manandhar, & Joshi, 2018), clean water and proper sanitation are to fight diseases and deaths caused by them.

According to (Chaulagain & Parajuli, 2018; Purnomo, Khairina, Fadhlurrohman, Andoko, & Priyanto, 2020), clean water and sanitation are needed in every area, such as houses, companies, and all livelihoods on earth. However, (Jobbins, Langdown, & Bernard, 2018) mentioned that although water and sanitation do not appear to be the driving force behind migration, the migration process will essentially shape access to water and sanitation services - especially for illegal migrants and transit people. The following is the proper sanitation data from urban and rural areas.

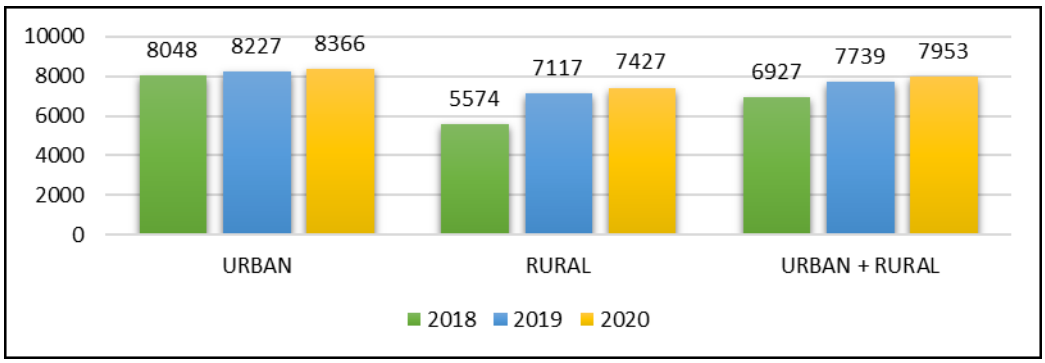

Figure 1. Percentage of Proper Sanitation by Province and Regional Type

Source: BPS RI 2020

Clean water and proper sanitation in every area are essential, thereby reducing harm to every community. Based on Figure 1, proper sanitation in Indonesia increased from 2018 to 2020, beneficial for clean water production (Fadhlurrohman, Purnomo, & Malawani, 2020; Jobbins et al., 2018). Therefore, raising a reference for clean or hygienic water resources with proper sanitation is necessary. In this case, the government is obliged to provide the best solution for clean water and proper sanitation (Wadu, Gultom, & Pantus, 2020). The data of clean water in Indonesia with their production companies are as follows.

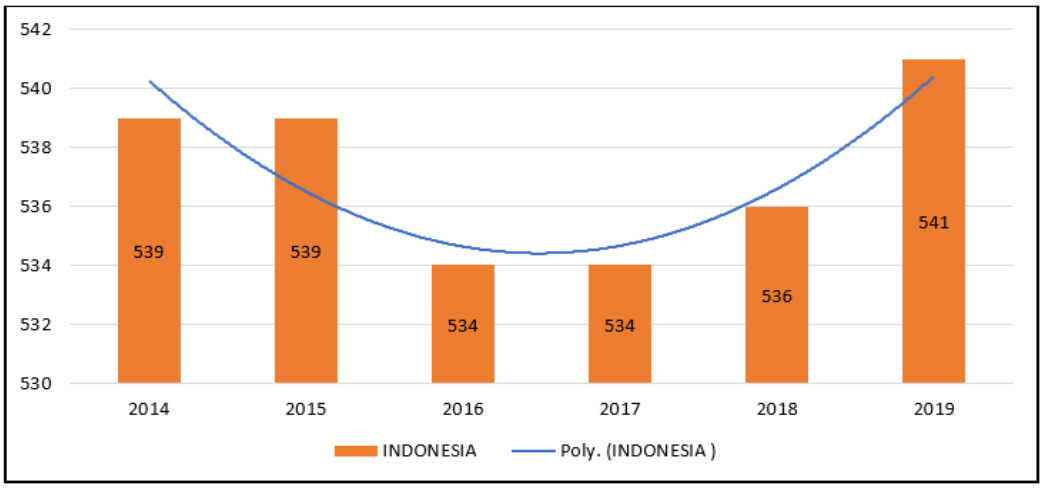

Figure 2. Water Treatment Companies in Indonesia during 2014-2019

Source: (Statistik, 2020)

The challenge of managing the clean water sector includes an administrative framework that will accelerate access to clean water in reasonable quantity and quality and the need to establish authority from upstream to downstream related to the drinking water market (Purnomo, 2012; Purwanto, 2020). Based on Figure 2, in 2019, 541 water treatment companies produce clean water for the community.

Conceptual Framework

Bibliometric

According to (Tupan, Rochani N Rahayu, Rulina Rachmawati, 2018), three main components in the first bibliometric include (a) bibliometrics for bibliometricians which is the primary domain of bibliometric research and is traditionally used as a research methodology; (b) bibliometrics for scientific disciplines (scientific information) for scientific disciplines (scientific information), bearing in mind that scientifically oriented researchers have a strong interest in their field of specialization and all fields; (c) bibliometric for science policy and management (Science Policy), a research evaluation in various research topics.

Clean Water / Sanitation Development

The Sustainability Development Goals (SDGs) stipulate sustainable development that accesses to drinking water is equal and comply with ethical requirements from adequate springs. The quality must meet predetermined health standards (Purwanto, 2020). Besides, the water must implement the ecosystems to make changes in the water control system (water engineering) and making policies in water control (Sadoff, Borgomeo, & Uhlenbrook, 2020). Clean water and proper sanitation are significantly related to health, a determining factor in a prosperous or prosperous life in society (Cha, Mankadi, Elhag, Lee, & Jin, 2017). Meanwhile, according to (Benson, Gain, & Giupponi, 2020), objective measurements in integrated water resource management include integration, scale, institutions; participation; economic appraisal; equity; and, environmental/ecological protection. Furthermore, the research integrated all elements in clean water and proper sanitation from the keyword's development, clean water, and Indonesia. Only a few studies have emerged. On the other hand, the research has the theme of clean water development in Indonesia.

Methodology

The primary purpose of the bibliometric analysis is to examine the current scientific literature and identify potential research differences and pinpoint inexperience (Fahimnia et al., 2015). The bibliometric analysis uses a quantitative approach to analyze results, provides a representative picture, and is recognized as a practical approach for assessing the output of publications, organization, authorship, and characteristics of research topics (Li, Huang, & Yang, 2020). To measure the impact of books, authors, and journals, the researchers evaluated various bibliometric metrics, including several publications, cumulative citations, citations per paper, influential journals, most important universities, and most significant countries using VosViewer software as software in the analysis.

The data collection used the Scopus Database (Scopus Database), about "Sustainable Clean Water Water and Sanitation Indonesia," "Sustainable Clean Water Indonesia," "Clean Water Development and Sanitation Indonesia," and "Clean Water Development in Indonesia." The Scopus index is the most comprehensive database because it includes all kinds of abstracts from different peer-reviewed literature, such as scientific journals, literature papers, books, and international proceedings or conferences (Liao, Tang, Li, & Lev, 2019). Although there are many papers in the database, this research only focuses on publications from journals (Article Journal, Conference Paper, Conference Review, and Review Article) published and indexed in Scopus with the keyword clean water and sustainable sanitation development Indonesia.

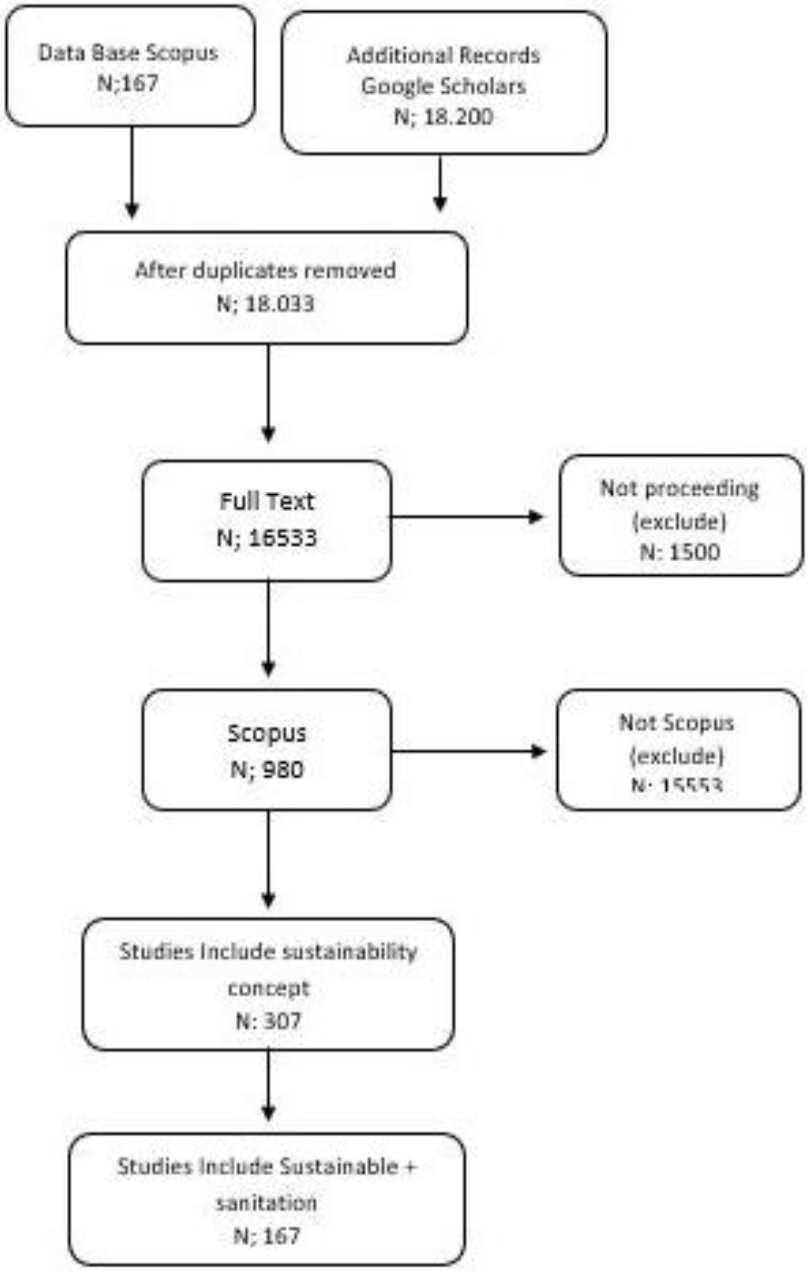

Figure 3. Research Analysis

Data collection includes selecting and retrieving data from several sites, in this case, the Scopus database. At the end of each search, the narrowed indexes were stored in a separate Scopus tagged list to visualize output, categorize and rank information. Furthermore, after the data was processed then exported and re-filtered by VosViewers, they were simulated, built, and viewed (Pan, Yan, Cui, & Hua, 2018). Of the four keywords described in (Table 1), the researchers analyzed the one keyword with the most document publishers, "clean water development Indonesia." The following picture is a pattern of the reset method. The protocol for determining the data analysis has several stages, as described in Figure 3.

Findings

Initial Search Result started using keywords to obtain the first stage results before screening (Pendit, 2006). In this research, keywords collected research-related data entered into the Scopus database search engine (Article Title, Abstract, Keywords) (Falagas, Pitsouni, Malietzis, & Pappas, 2008; Wang, Xu, & Škare, 2020) (Table 1).

Table 1.

Initial Search Result

Search Keywords	Search Results (Number of Paper)
Sustainable Development, Clean Water, and Sanitation Indonesia	13
Sustainable, Clean Water, Indonesia	14
Development, Clean Water, and Sanitation Indonesia	12
Development, Clean Water, Indonesia	128
Total	167

Source: Scopus

Filtering Search Results simplify or filter original search results to get more specific results. The purpose is to allow the researchers to concentrate more on achieving successful research results. In this analysis, a framework review technique, led by a set of inclusion and exclusion criteria, filter out irrelevant studies about the purpose, questioning, and the bibliometric search. The first step in a bibliometric analysis is to evaluate the available database, Scopus, then make adjustments and the consequences of using that database (Sánchez, de la Cruz Del Río Rama, & García, 2017).

From the 167 articles, the researchers used filters to narrow and focus their research on "Sustainable clean water and sanitation development in Indonesia." This filtering is done by looking at articles in English, written, or press articles, although some articles often fall into the business, social, sociological, statutory, legal, and social categories. The definition of sustainability in the philosophy of sustainable development goals is directed at improving the quality of human life, making the current generation successful, and providing decent conditions for future generations (Morton, Pencheon, & Squires, 2017).

To track the development of the empirical field studied in this study, the researchers have followed an inductive approach through bibliometric analysis of scientific output (Serrano, Sianes, & Ariza-Montes, 2019). Likewise, the literature classification in this paper is complemented by the interpretation of accurate data using the deductive method (Fahimnia et al., 2015). Therefore, this analysis aims to combine inductive and deductive

methods through a data collection process called triangulation, combining various data sources and different authors (Scheffler & Brunzel, 2020).

Data analysis implemented bibliometric analysis, whose findings were summarized in the results and discussion. The researchers used VosViewer due to its ability to function effectively with massive adata sets and include various visualizations, analyses, and breakthrough studies (Fahimnia et al., 2015). Bibliometric analysis using VosViewer also classified published literature and extensive network relationships. With the bibliometric method, analysis of health, information technology, education, monetary, economics, security, agriculture, property, and land conditions, international affairs can also include social sciences that study tourism. It is also an essential method for journal article science maps as it has a versatile graphical user interface and maps viewing capabilities (Wang et al., 2020).

Published papers were further classified and examined in several variables. The researchers assessed the source and state of the research discipline in citation metrics, articles, publication methods, country or region, research field, and identification patterns in developing knowledge-based policy research theory. Similar approaches were also applied in literature studies on tourism sustainability research, assessing tourism goods and practices, and developing new concepts for the future tourism industry. The researchers agreed to complete the bibliometric analysis with two network visualization analyses, map density based on keyword occurrence and map density based on network data linked by co-authored objects. The co-occurrence study of keywords reflects the number of times the two terms appear together in a series of articles (Sun & Yuan, 2020). Density maps are based on the occurrence of keywords used for this purpose.

A complete counting approach was used, ensuring each equal relationship between joint events (Shah, Lei, Ali, Doronin, & Hussain, 2019). For its part, co-authored network studies revealed the number of publications. Density vision quickly gets an overview of the author's general outline and highlights the most influential authors in this area (Anneboina & Kavi Kumar, 2017). For this reason, the density maps were based on network data linked to co-authored objects. Thus, each point in the article density display has a color indicating how accurate the object is at that point. They are naturally blue, green, and yellow. The greater the number of elements surrounding the point and the greater the weight of the neighboring features, the closer the color of the point will be to gold (Eck & Waltman, 2020).

The numerical data was to see the discrepancy in the number of papers written per year, whether they increase or decrease compared to the previous year. Figure 4 shows the documents published until March 2021, which the interest and concern of researchers, academics, and experts in clean water and sustainable sanitation research, particularly in Indonesia, increases. These findings suggested steady growth in the writing and publishing of Scopus last year.

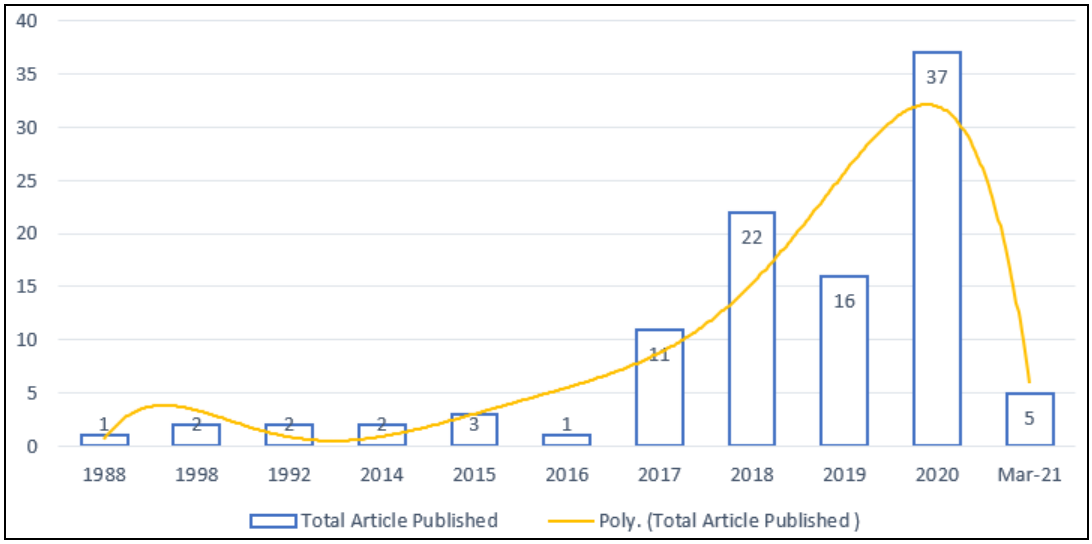

Figure 4. Total Articles Published

Source: Scopus

The statistical data in Figure 4 determines that the published article document started in 1988. A 1988 research on "Clean Water Development Indonesia" began to increase in 2017 to March 2021. The most significant increase occurred in 2019-2020, from 16 published articles. By 2020, the articles increased to 37 articles published. Furthermore, research continued to discuss clean water to determine dominant journals from the top 10 publishers.

Table 2.

Top 10 Contribution of Publishers to Indonesia's Clean Water Development Area

No	Publisher	Record
1	Iop Conference Series Earth And Environmental Science	30
2	E3sWeb Of Conference	10
3	Indian Journal Of Publick Health Reasearch And Development	9
4	Aip Comference Proceedings	4
5	International Journal Of Civil Engineering And Technology	3
6	Iop Conference series Materials Science And Engineering	3
7	Journal Of Physics Conference Series	3
8	International Journal Of Advanced Science And Technology	2
9	International Journal Of Technology	2
10	Journal Of Cleaner Production	2

Source: Scopus

Table 2 shows that the top 10 journal publishers contributing to the process of publishing articles related to "Clean Water Development Indonesia" were Scopus indexed journals. Given the top 10 journal article publishers, three conferences published related articles. Meanwhile, most publishers produce journals with the main scope of clean water, health, and others.

Bibliometric Analysis

The results also allow the researchers to examine the flow of research related to "Clean Water Development Indonesia." In the previous sub-chapter, the researchers explained that this work was based on the method used in the literature study, called the bibliometric study (Woolcock, Bamberger, & Rao, 2010). Bibliometric methods have been used in many fields of research (Zahra et al., 2021), environment (Hermans, Cunningham, & Slinger, 2014), and economics (Han, Kim, & Kim, 2017). In a bibliometric study conducted by researchers on 128 Scopus indexed papers on "Clean Water Development in Indonesia," an investigation aimed to establish a relationship between articles by comparing the frequency referring to other articles relevant to tourism studies. What researchers did to find answers to questions was confidential by uploading files to the VosViewer program. They could look at the authors' influence, organization, place, number of citations, keywords, and the relationship between words, variations, variations, rarely conducted research, and frequently conducted study. These findings also allow researchers to explore the "Clean Water Development in Indonesia" research stream.

Table 3.

Top 10 Author Contributions

No	Author	Jumlah
1	Mallongi. A	3
2	Budiarjo, M.A	2
3	Kusratmoko, E	2
4	Selomo, M	2
5	Zaman, B	2
6	Abbasi, S.A	1
7	Abbasi, T	1
8	Abram, N. K	1
9	Soesilo, T.E. B	2
10	Adirinekse, G.P	1

Source: Scopus

Table 3 shows the top 10 most essential authors who contributed to "Sustainable clean water development in Indonesia." The table is a product of extraction, so the findings shown are the number of critical authors and co-authors, written documents, and the overall intensity of the relationship. Table 3 also shows that many manuscripts do not mean that other authors frequently quote the text, nor does it establish that the author has a close relationship with the author. In each document, there is citation involvement with others. None is related seen from the following figure.

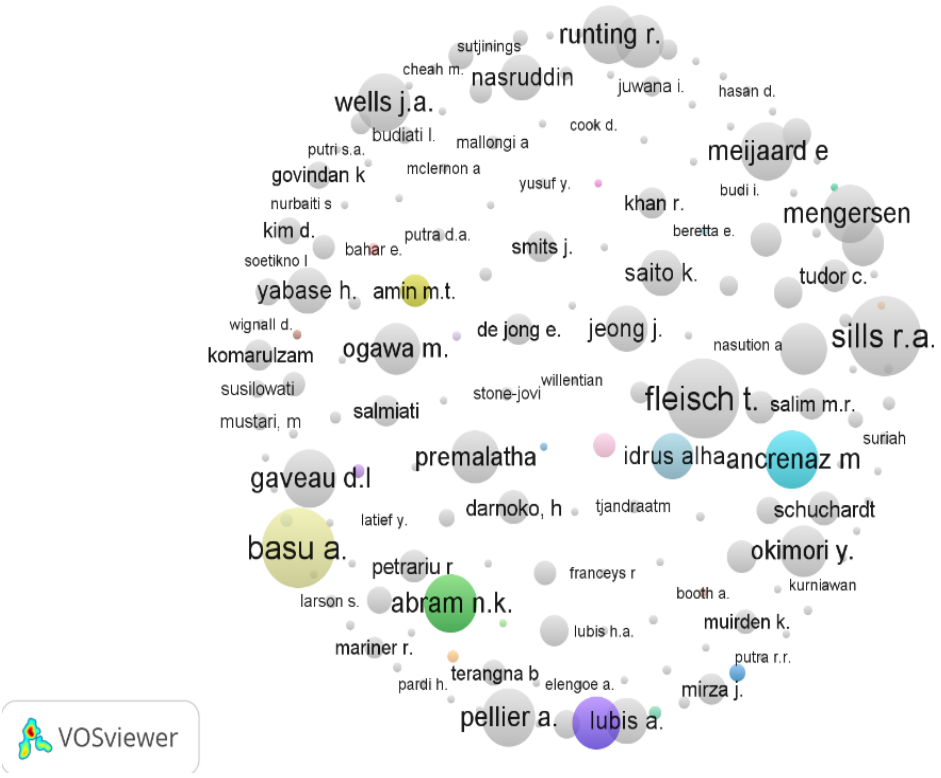

Figure 5. Citation Network

Figure 5 reveals the highest citation in each document. However, the correlation between the citation of these names is not proven. There is a lack of correlation between all documents on clean water and sanitation development in Indonesia. Besides, the articles are the contributions from several countries about "Clean Water Development Indonesia.

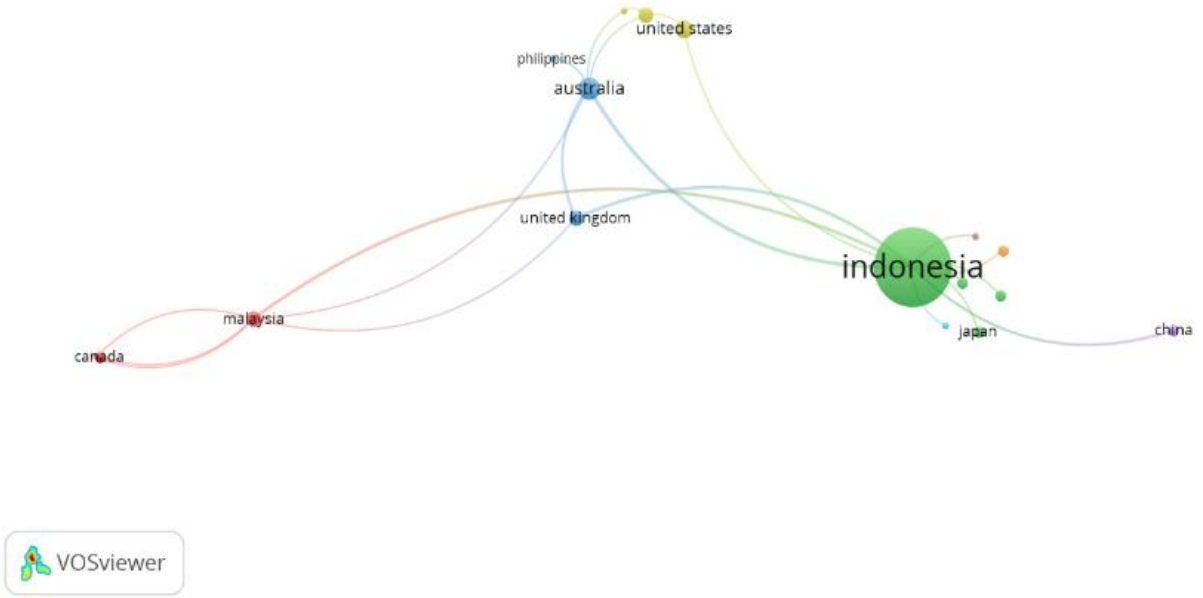

Figure 6. Countries' Contribution

Based on Figure 7, Indonesia contributes a lot from the nodes and collaborations with other countries, such as Australia, United Kingdom, United States, the Philippines, and other countries. Several countries collaborate

with only one country, such as China only with Indonesia, Japan with Indonesia, and Canada and Malaysia. It reveals that authors from Indonesia have more collaborations with other countries to observe clean water development.

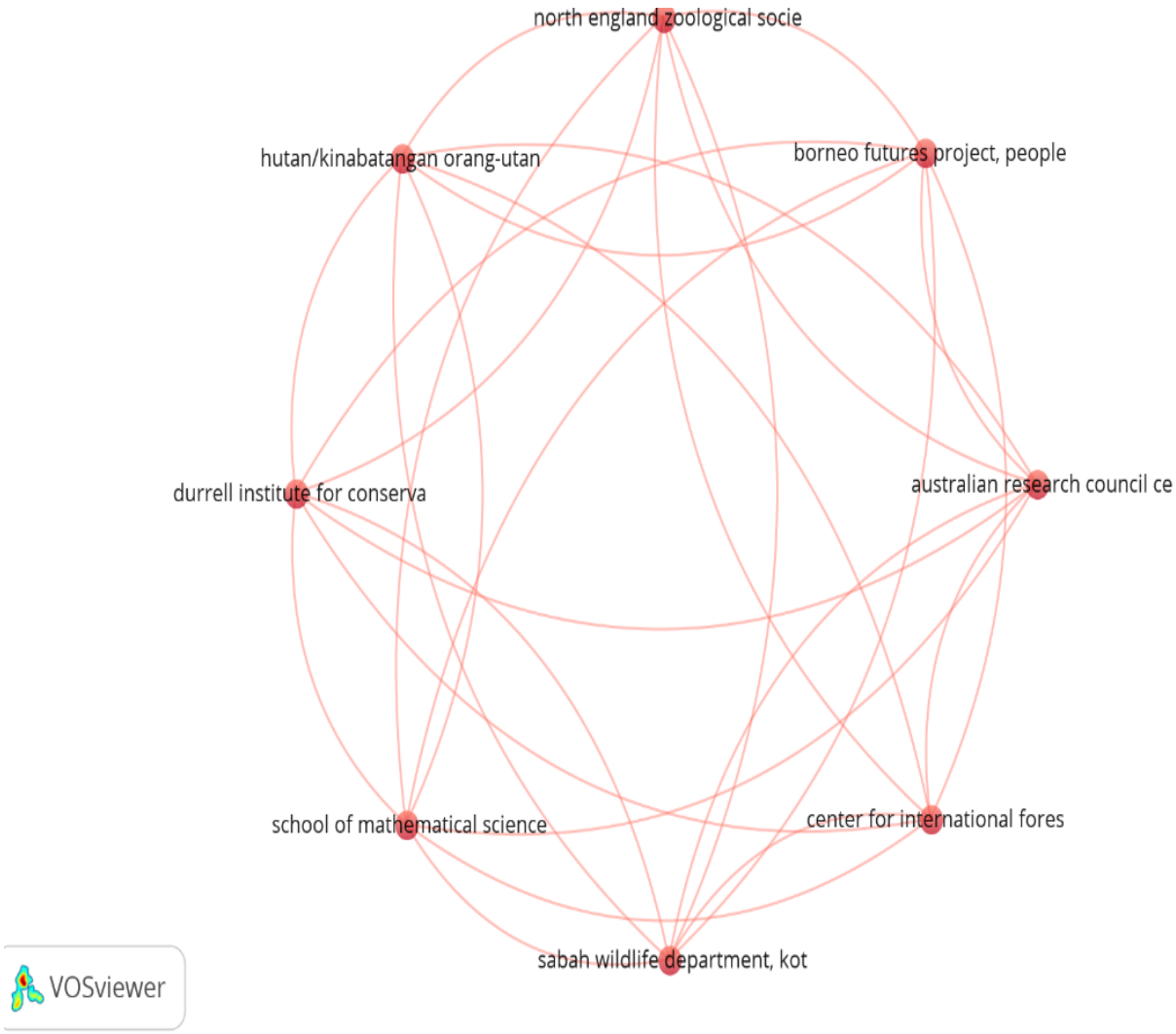

Figure 7. Contribution of the Organization on Clean Water Development in Indonesia

Contribution in a study is critical to compare research success and is determined by the research process (Herawati, 2015). Figure 7 shows that the contribution in research with 'clean water development in Indonesia' is more dominated by organizations in Indonesia.

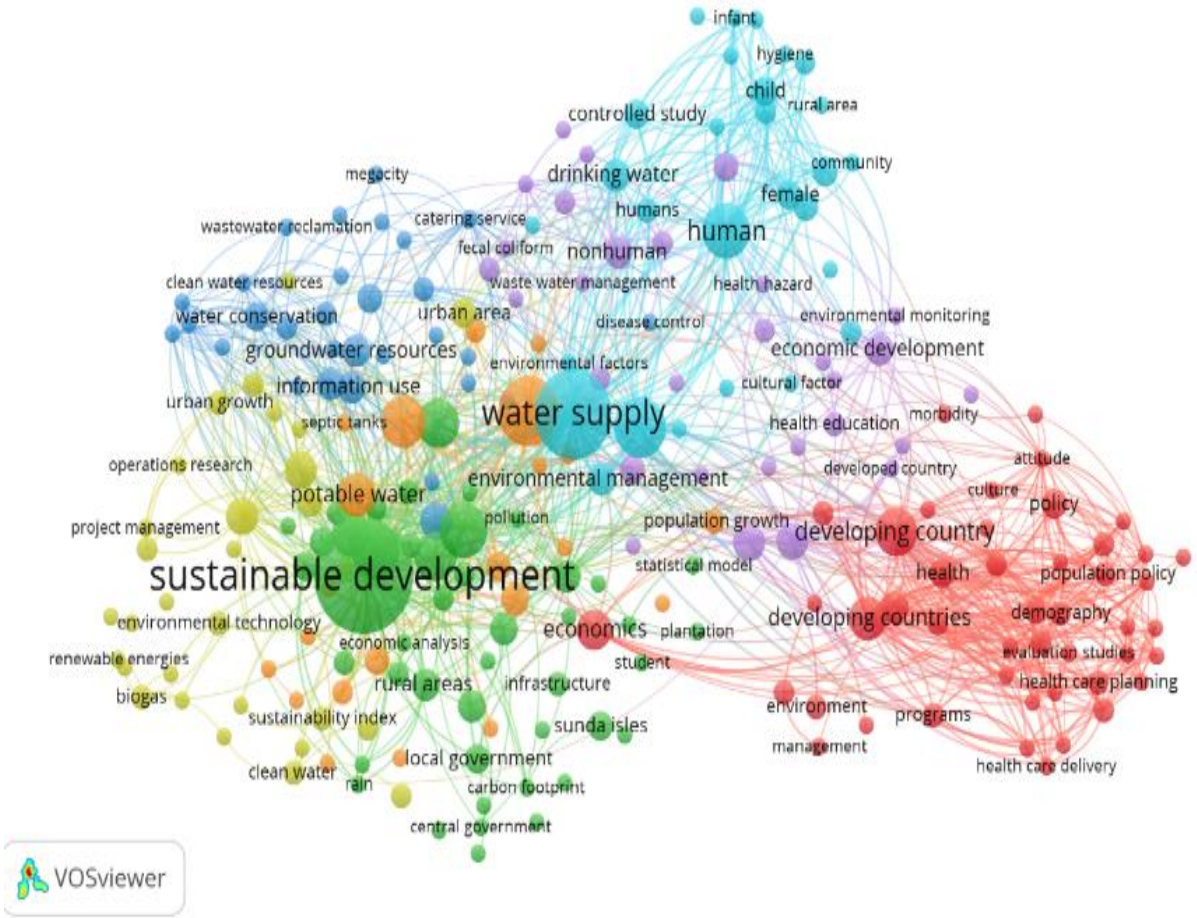

Figure 8. Keyword Clean Water Development in Indonesia

Figure 6 illustrates the relationship between keywords, such as "Indonesia," "clean water," while the "development" shows how the other two are closely related. This branch of research is linked to different themes on which interdependence is built. Therefore, it is fair to say that this also implies that the importance of bonds develops with each other. We conducted 128 studies and found the most commonly used keywords in the analysis, as seen above. Indonesia has used several general terms such as "water supply," "human," "sustainable development," and "environmental management." "Clean water development" succeeded due to a correlation in networks that influence each large node and small node. However, some nodes are not networked with other nodes. There has never been any discussion of this topic in the figure, which shows no analysis has ever been carried out. For example, the relationship between clean water and economic development has nothing to do with health care delivery, and health care planning has nothing to do. Theoretically, this suggests that there has never been any research covering the topic or no ongoing articles.

Discussion

A critical analysis of Indonesia's clean water production processes provides a systematic exploration to shed light on this subject. Previous research on clean water production in Indonesia, which contains information from various publications, has been reviewed. Conference and workshop proceedings have been carried out in this

bibliometric. Between 1988 and 2021, efforts to increase interest in clean water schemes increased, but the attempts did not increase dramatically (Purwanto, 2020), but research conducted by academics has been expanding.

The findings show that the various methodologies and disciplines used and the most productive academics highlight the interdisciplinary importance of clean water production in Indonesia (Lim & Lin, 2021). Finally, the findings lead to an interesting theory about new developments. In particular, the study of sustainable water production suggests a new line of investigation, including how to build a cleaner supply while keeping everyone's water quality constant (Fadhlurrohman et al., 2020; Purnomo, Zahra, Malawani, & Anand, 2021; Wadu et al., 2020). No correlation between the citation of the authors results in the absence of supporting factors for the fulfillment of clean water and sanitation services for humans (Utama, Inayati, & Sugiarto, 2019). Water is necessary for a decent healthy life without severe diseases (Irfan & Delima, 2018).

Conclusion

Bibliometric is a classification for research topics published from the literature review in the data search tool. The conclusions of the bibliometric research in this article were obtained from Scopus data with specific keywords, which produced 167 documents from the keyword 'Indonesia's clean water development,' clarified with other additional keywords such as 'sustainable' and 'sustainability + sanitation.' VosViewer tool helped the research see which keywords would be gaps in a study seen from sustainable development, clean water, and water supply. Of all countries and organizations in the research process, the connection between Asian and European countries was positive because countries contributing to the research would be dominant in making changes. Thus, the interest continues to grow, especially with 'Indonesia's clean water development' as the theme and 'sustainable' and 'sustainability + sanitation' as the keywords.

References

1. Anneboina, L.R., & Kavi Kumar, K.S. (2017). Economic analysis of mangrove and marine fishery linkages in India. *Ecosystem Services*, *24*, 114–123.
2. https://doi.org/10.1016/j.ecoser.2017.02.004
3. Bappenas. (2020). *Metadata Indikator Tujuan Pembangunan Berkelanjutan (TPB) /Sustainable Development Goals (SDGs) Indoensia: Pilar Pembangunan Lingkungan*.
4. Benson, D., Gain, A.K., & Giupponi, C. (2020). Moving beyond water centricity? Conceptualizing integrated water resources management for implementing sustainable development goals. *Sustainability Science*, *15*(2), 671–681. https://doi.org/10.1007/s11625-019-00733-5
5. Cha, S., Mankadi, P.M., Elhag, M.S., Lee, Y., & Jin, Y. (2017). Trends of improved water and sanitation coverage around the globe between 1990 and 2010: Inequality among countries and performance of official development assistance. *Global Health Action*, *10*(1). https://doi.org/10.1080/16549716.2017.1327170

6. Chaulagain, D.D., & Parajuli, K.P. (2018). Level of Knowledge Regarding Water and Sanitation among Women of Biratnagar. *Journal of Nobel Medical College*, *7*(2), 58–63. https://doi.org/10.3126/jonmc.v7i2.22309

7. Eck, N.J. Van, & Waltman, L. (2020). VOSviewer Manual Version 1.6.15. In *University of Leiden*, *1*. https://doi.org/10.1007/978-3-540-78646-7_21

8. Fadhlurrohman, M.I., Purnomo, E.P., & Malawani, A.D. (2020). Analysis Of Sustainable Health Development In Indonesia (Sustainable Development Goal's). *Jurnal Kesehatan Lingkungan Indonesia*, *19*(2), 133–143.

9. https://doi.org/10.14710/jkli.19.2.133-143

10. Fahimnia, B., Sarkis, J., & Davarzani, H. (2015). Green supply chain management: A review and bibliometric analysis. *International Journal of Production Economics*, *162*, 101–114. https://doi.org/10.1016/j.ijpe.2015.01.003

11. Falagas, M.E., Pitsouni, E.I., Malietzis, G.A., & Pappas, G. (2008). Comparison of PubMed, Scopus, Web of Science, and Google Scholar: strengths and weaknesses. *The FASEB Journal*, *22*(2), 338–342. https://doi.org/10.1096/fj.07-9492lsf

12. Gümüş, S., Bellibaş, M. Ş., Gümüş, E., & Hallinger, P. (2020). Science mapping research on educational leadership and management in Turkey: a bibliometric review of international publications. *School Leadership and Management*, *40*(1), 23–44. https://doi.org/10.1080/13632434.2019.1578737

13. Han, J., Kim, Y.J., & Kim, H. (2017). An integrative model of information security policy compliance with psychological contract: Examining a bilateral perspective. *Computers & Security*, *66*, 52–65. https://doi.org/10.1016/j.cose.2016.12.016

14. Herawati, N.T. (2015). Kontribusi pembelajaran di perguruan tinggi dan literasi keuangan terhadap perilaku keuangan mahasiswa. *Jurnal Pendidikan Dan Pengajaran*, *1–3*(48), 60–70.

15. Hermans, L., Cunningham, S., & Slinger, J. (2014). The usefulness of game theory as a method for policy evaluation. *Evaluation*, *20*(1), 10–25.

16. https://doi.org/10.1177/1356389013516052

17. Hirsch, J.E. (2005). An index to quantify an individual's scientific research output. *Proceedings of the National Academy of Sciences of the United States of America*, *102*(46), 16569–16572. https://doi.org/10.1073/pnas.0507655102

18. Irawan, B., Akbar, P., Purnomo, E.P., & Nurmandi, A. (2021). *Development planning to accelerate Sustainable Development Goals (SDGs) in Mahakam Ulu District as a new autonomous region Perencanaan pembangunan untuk percepatan Tujuan Pembangunan Berkelanjutan (SDGs) di Kabupaten Mahakam Ulu sebagai daerah otonomi baru*. 184–195.

19. Irfan, A., & Delima. (2018). Sarana Sanitasi Dasar Dengan Kejadian Diare Pada Balita. *Jurnal Sehat Mandiri*, *13*(2), 42–47. https://doi.org/10.33761/jsm.v13i2.59

20. Jobbins, G., Langdown, I., & Bernard, G. (2018). *Briefing note Key messages Water and sanitation, migration and the 2030 Agenda for Sustainable Development*. Retrieved from https://www.odi.org/sites/odi.org.uk/files/resource-documents/12299.pdf

21. Li, Z.C., Huang, H.J., & Yang, H. (2020). Fifty years of the bottleneck model: A bibliometric review and future research directions. *Transportation Research Part B: Methodological*, *139*, 311–342. https://doi.org/10.1016/j.trb.2020.06.009

22. Liao, H., Tang, M., Li, Z., & Lev, B. (2019). Bibliometric analysis for highly cited papers in operations research and management science from 2008 to 2017 based on Essential Science Indicators. *Omega*, *88*, 223–236.

23. https://doi.org/10.1016/j.omega.2018.11.005

24. Lim, M.Y.H., & Lin, V. (2021). Governance in health workforce: how do we improve on the concept? A network-based, stakeholder-driven approach. *Human Resources for Health*, *19*(1), 1–10. https://doi.org/10.1186/s12960-020-00545-0

25. Mai, V.Q., Ngoc Anh, H.T., Thao Anh, H., & Van Minh, H. (2020). Review of Public Financing for Water, Sanitation, and Hygiene Sectors in Vietnam. *Environmental Health Insights*, *14*. https://doi.org/10.1177/1178630220938396

26. Morton, S., Pencheon, D., & Squires, N. (2017). Sustainable Development Goals (SDGs), and their implementation. *British Medical Bulletin*, *124*(1), 81–90. https://doi.org/10.1093/bmb/ldx031

27. Pan, X., Yan, E., Cui, M., & Hua, W. (2018). Examining the usage, citation, and diffusion patterns of bibliometric mapping software: A comparative study of three tools. *Journal of Informetrics*, *12*(2), 481–493. https://doi.org/10.1016/j.joi.2018.03.005

28. Pendit, P.L. (2006). Ragam Teori Informasi. *Eprints*, (September), 16–21.

29. Purnomo, E.P. (2012). The Stakeholders' Analysis and Development Indicator of Sustainability on the Community Project. *SSRN Electronic Journal*, 1–19. https://doi.org/10.2139/ssrn.1818584

30. Purnomo, E.P., Khairina, E., Fadhlurrohman, M.I., Andoko, B.W., & Priyanto, A. (2020). Managing Biodiversity in Dealing with Sustainable Development Goals. *MIMBAR : Jurnal Sosial Dan Pembangunan*, *36*(2), 373–384.

31. https://doi.org/10.29313/mimbar.v36i2.6029

32. Purnomo, E.P., Zahra, A.A., Malawani, A.D., & Anand, P. (2021). The kalimantan forest fires: An actor analysis based on supreme court documents in Indonesia. *Sustainability (Switzerland)*, *13*(4), 1–12. https://doi.org/10.3390/su13042342

33. Purwanto, E.W. (2020). Pembangunan Akses Air Bersih Pasca Krisis Covid-19. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, *4*(2), 207–214. https://doi.org/10.36574/jpp.v4i2.111

34. Sadoff, C.W., Borgomeo, E., & Uhlenbrook, S. (2020). Rethinking water for SDG 6. *Nature Sustainability*, *3*(5), 346–347. https://doi.org/10.1038/s41893-020-0530-9

35. Sánchez, A.D., de la Cruz Del Río Rama, M., & García, J.Á. (2017). Bibliometric analysis of publications on wine tourism in the databases Scopus and WoS. *European Research on Management and Business Economics*, *23*(1), 8–15.
36. https://doi.org/10.1016/j.iedeen.2016.02.001
37. Scheffler, M., & Brunzel, J. (2020). Destructive leadership in organizational research: a bibliometric approach. *Scientometrics*, *125*(1), 755–775.
38. https://doi.org/10.1007/s11192-020-03621-3
39. Serrano, L., Sianes, A., & Ariza-Montes, A. (2019). Using bibliometric methods to shed light on the concept of sustainable tourism. *Sustainability (Switzerland)*, *11*(24). https://doi.org/10.3390/SU11246964
40. Setty, K., Jiménez, A., Willetts, J., Leifels, M., & Bartram, J. (2020). Global water, sanitation and hygiene research priorities and learning challenges under Sustainable Development Goal 6. *Development Policy Review*, *38*(1), 64–84. https://doi.org/10.1111/dpr.12475
41. Shah, S.H.H., Lei, S., Ali, M., Doronin, D., & Hussain, S.T. (2019). Prosumption: bibliometric analysis using HistCite and VOSviewer. *Kybernetes*, *49*(3), 1020–1045. https://doi.org/10.1108/K-12-2018-0696
42. Shrestha, M.V., Manandhar, N., & Joshi, S.K. (2018). Study on Knowledge and Practices of Water, Sanitation and Hygiene among Secondary School Students. *Journal of College of Medical Sciences-Nepal*, *14*(3), 160–165.
43. https://doi.org/10.3126/jcmsn.v14i3.21158
44. Statistik, B.P. (2020). *Statistik Air Bersih 2014-2019*.
45. https://www.bps.go.id/publication/download.html?nrbvfeve=ZTQ2NzU5NWI2YWM5NjJlZDE0ODhjMjg3&xzmn=aHR0cHM6Ly93d3cuYnBzLmdvLmlkL3B1YmxpY2F0aW9uLzIwMjAvMTIvMjEvZTQ2NzU5NWI2YWM5NjJlZDE0ODhjMjg3L3N0YXRpc3Rpay1haXItYmVyc2loLTIwMTQtMjAxOS5odG1s&twoadfnoarfeauf=MjAyMS0wNi0xMSAyMjo1ODoxNQ%3D%3D
46. Sun, J., & Yuan, B. Z. (2020). Mapping of the world rice research: A bibliometric analysis of top papers during 2008–2018. *Annals of Library and Information Studies*, *67*(1), 56–66.
47. Tang, M., Liao, H., Wan, Z., Herrera-Viedma, E., & Rosen, M.A. (2018). Ten years of Sustainability (2009 to 2018): A bibliometric overview. *Sustainability (Switzerland)*, *10*(5), 1–21. https://doi.org/10.3390/su10051655
48. Tupan, Rochani N Rahayu, Rulina Rachmawati, E. (2018). Bidang Ilmu Instrumentasi. *BACA: Jurnal Dokumentasi Dan Informasi*, *9008*(21), 135–149.
49. Utama, S.Y.A., Inayati, A., & Sugiarto, S. (2019). Hubungan Kondisi Jamban Keluarga Dan Sarana Air Bersih Dengan Kejadian Diare Pada Balita Di Wilayah Kerja Puskesmas Arosbaya Bangkalan. *Dinamika Kesehatan Jurnal Kebidanan Dan Keperawatan*, *10*(2), 820–832. https://doi.org/10.33859/dksm.v10i2.465

50. Wadu, L.B., Gultom, A.F., & Pantus, F. (2020). Penyediaan Air Bersih Dan Sanitasi : Bentuk Keterlibatan Masyarakat Dalam Pembangunan Berkelanjutan. *Jurnal Pendidikan Kewarganegaraan*, *10*(2), 80.
51. https://doi.org/10.20527/kewarganegaraan.v10i2.9318
52. Wang, X., Xu, Z., & Škare, M. (2020). A bibliometric analysis of Economic Research-Ekonomska Istraživanja (2007–2019). *Economic Research-Ekonomska Istrazivanja* , *33*(1), 865–886. https://doi.org/10.1080/1331677X.2020.1737558
53. Woolcock, M., Bamberger, M., & Rao, V. (2010). Using Mixed Methods in Monitoring and Evaluation: Experiences from International Development. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1545914
54. Zahra, A.A., Nurmandi, A., Tenario, C.B., Rahayu, R., Benectitos, S.H., Mina, F.L.P., & Haictin, K.M. (2021). Bibliometric Analysis of Trends in Theory-related Policy Publications. *Emerging Science Journal*, *5*(1), 96–110. https://doi.org/10.28991/esj-2021-01261