Researching Waqf Forest Studies

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This research aims to identify and map research related to the development of research trends in Waqf Forest. The data analyzed are articles published by leading journals from 1986 to 2021. The number of articles analyzed is 70 articles indexed by Scopus. The research methods are descriptive statistical methods and bibliometric analysis. The results of the study show that the number of articles discussing the theme of Waqf Forest shows an increasing trend starting from 2005. Popular keywords used are environment, sustainability, and waqf. The most prolific writers are Hashim J, Hashim H, and Abidin IZ, while the country with the most popular writers and the most in the United States. This research provides information for researchers who focus on research in the field of Waqf Forest.

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INTRODUCTION

Forests are one of the most important ecosystems on the planet. In the context of the SDGs, forests can not only generate income for the community (SDGs 1) but also provide food and medicine (SDGs 2 and 3). Forests also provide fresh water and maintain the earth's temperature (SDGs 6 and 13) as well as protect sources of biodiversity (SDGs 15) (Seymour and Busch (2017) Ali and Kassim (2020)). On the other hand, forest destruction can increase poverty, hunger, respiratory problems and damage to infrastructure. So, it is important to protect and manage forests.

Waqf is one of the sources of IGE (*Islamic Gift Economy)* as national income which is used for economic distribution purposes other than zakat, *sadaqah* (voluntary charity), *ghanimah* (spoils of war), *fai* (treasures obtained in war without fighting), *fidth* (part of *fai* whose distribution pattern is similar to zakat), *kharaj* (tax on land conquered during the war) and *'ushr* (zakah on crops) (Robani and Salih, 2018). According to Budiman (2011) waqf is an asset that continues to provide results as long as the principle is enforced. This means that the concept of the immutability of waqf property is present as long as the property is still there. As long as the waqf operates and benefits the recipient, the reward will continue to flow even though the *wakif* (waqf person) dies. Waqf instruments can be used to preserve forests in the form of waqf forests.

Setyoni et al (2020) argue that waqf can be used for a sustainable environment provided that management must comply with Islamic principles. Continuing this opinion, Ali and Kasim (2020) also specifically mention that the waqf program can be used to manage and finance forests by referring to the concept of waqf forest. A further opinion from Bagader et al in Budiman (2011) suggests that waqf can be used with land trusts dedicated to charitable purposes such as agricultural research, wildlife propagation, public reservoirs, and gardens or can be in the form of funds to finance these projects or reforestation projects.

This study aims to identify and map research related to the trend development of articles with the theme of Waqf Forest. The data analyzed consisted of 70 research articles indexed by Scopus from 1986 to 2021. The data will be processed and analyzed using VOSviewer software to find out the bibliometric map of development related to the waqf forest.

LITERATURE REVIEW

Waqf forest is a form of productive waqf in rebuilding a land to be used as a forest. The benefits of forests can be used for social benefits, namely as a source of oxygen, springs, and life for many creatures (Sup, 2021).

The waqf forest program is a form of implementation of the waqf concept that can support environmental conservation. Waqf forest is an innovation in the field of waqf empowerment. Waqf forests play a role in maintaining microclimate stability, preserving biodiversity, conserving water, and preventing natural disasters. Asset utilization in this program is included in Article 22 of Law Number 41 of 2004 concerning waqf. In addition, Article 16 also explains that immovable objects include plants and other objects related to land. In other words, the waqf forest program includes forests and plants on them (BWI, 2020).

Waqf and SDGs are related, according to Ali (2020) waqf have a role in forest conservation and the achievement of SDGs. Through a productive waqf forest scheme that supports several key SDGs, such as reducing poverty and hunger, maintaining climate change, maintaining a healthy life, conserving biodiversity and water supply, as well as promoting economic growth, consumption, and sustainable production.

Yaakob et al. (2017) argue that waqf is an alternative mechanism to protect and conserve forests. The study proposes to allocate certain land in the name of waqf so that the state can improve the state of the forests that provide water catchment areas, flood control, and also biodiversity. The use of various waqf funds to protect the environment is demonstrated in Kuwait, Indonesia, Singapor,e and also the UK.

Research conducted by Abdullahi (2019) reveals that the long-term benefits of reforesting OIC member countries are enormous, where the amount of land reclaimed from deserts and used productively will in turn have a direct effect on the country's economy and the entire climate of the region and the world. Then the next effort is that the OIC countries must establish special banks to provide plantation finance and reduce desertification, the establishment of cooperatives and NGOs must lead to reforestation activities. Finally, the government must create awareness among the general public through social media, radio, television, and other forms of media.

METHODOLOGY

This research was conducted using Scopus indexed article publication data with the theme *Waqf Fores*. Data collection was done by entering keywords Hashim J, Hashim H, Abidin IZ, and the results displayed 70 published articles. Data from these topics were then analyzed using Microsoft Excel 2016. As for the analysis of the trend of publication developments, it was carried out with the help of VOSviewer *software*

The computer program that was introduced was called VOSviewer. VOSviewer is a program developed for creating and viewing bibliometric maps. This program is available free of charge to the bibliometric research community (see www.vosviewer.com). VOSviewer can create author maps or journals based on

co-citation data or create keyword maps based on shared incident data. The program offers a viewer that allows bibliometric maps to be examined in detail.

To build the map, VOSviewer uses the VOS mapping technique, where VOS stands for visualization similarity. For previous studies where the VOS mapping technique was used VOSviewer can display maps built using the appropriate mapping technique. Therefore, this program can be used to display maps built using the VOS mapping technique and display maps built using multidimensional scaling techniques.

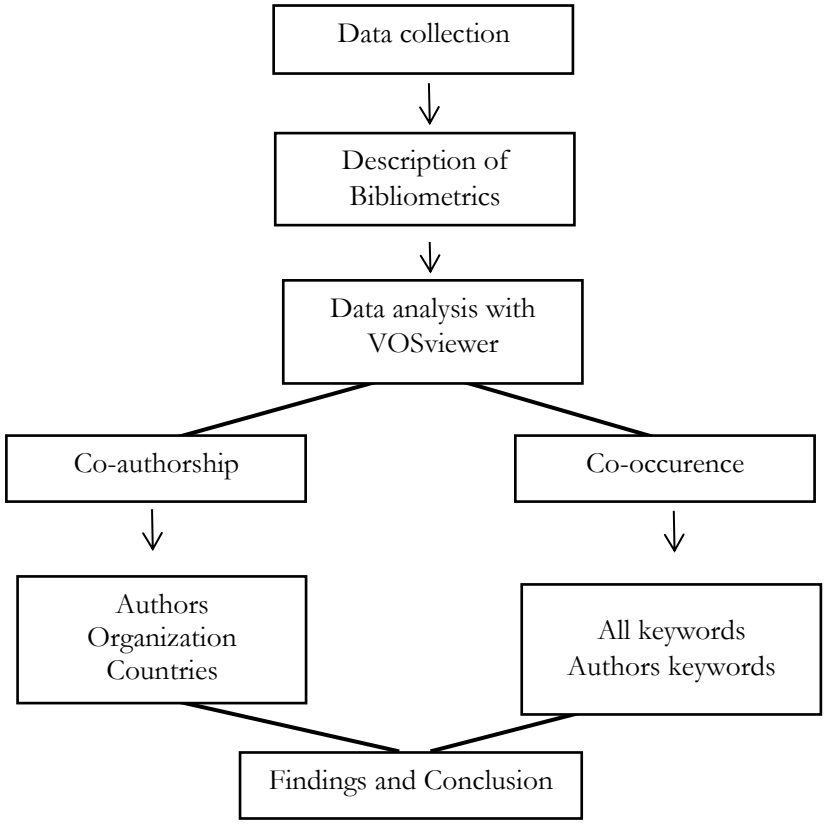
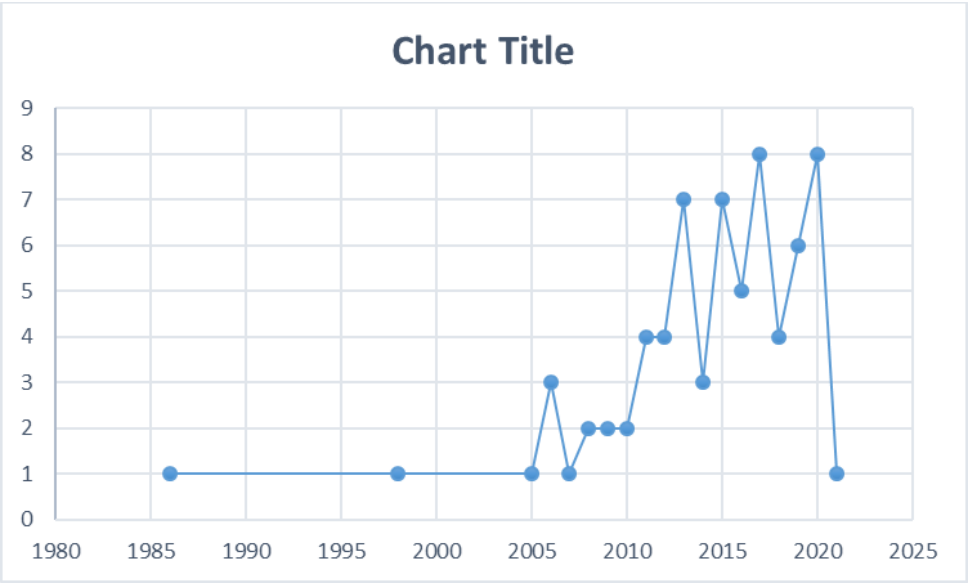


Figure 1: VOSviewer data analysis flow

RESULT AND ANALYSIS

Meta-Analysis



Graph 1 Development of Waqf Forest Journal

Graph 2Development of the Waqf Forest Journal explains the number of publications on Waqf Forest-themed papers There are 70 published articles from 1986 to 2021. The articles taken are Scopus indexed articles. The development of the article experienced a significant increase from 2005 to 2020. Then in 2021, the waqf forest article decreased.

Table 1 The Year and Total Publication of Waqf Forest Articles

Year	Total Publications
1986	1
1998	1
2005	1
2006	3
2007	1
2008	2
2009	2
2010	2
2011	4
2012	4
2013	7
2014	3
2015	7
2016	5
2017	8
2018	4
2019	6
2020	8
2021	1
Total	**70**

Based on Graph 3of the Development of the Waqf Forest Journal and Table 2.The Year and Total Publication of Waqf Forest articles were published in 1986. The number of articles began to increase in 2005. The trend of increasing the number of articles occurred from 2005 to 2020. The data also shows that the most waqf forest articles were published in 2017 and 2020 with a total of 8 articles. Then in, 2021 it will decrease. Until the end of 2021, the number of Waqf Forest articles indexed by Scopus amounted to 1 article.

Co-Authorship Analysis

1. Co-Authorship Analysis

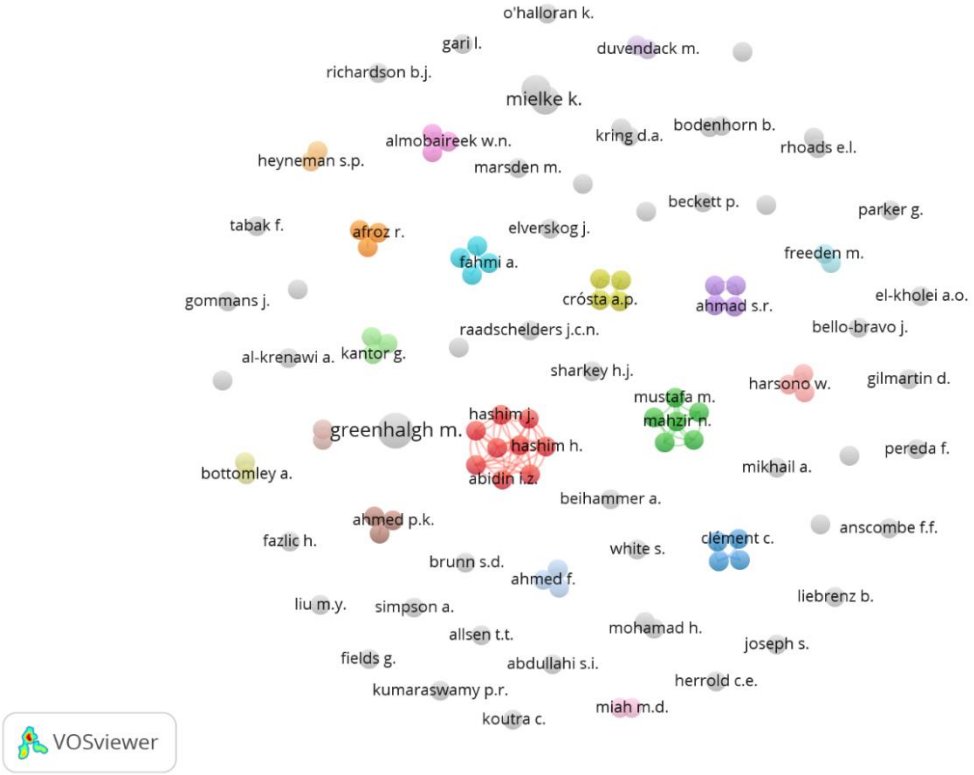


Figure 2:1Network Visualization Authors

In the author's bibliometric mapping using VOSviewer software, the results are shown in Figure 2Network Visualization Authors. There are 2 densest clusters, namely red and green. The 2 clusters indicate that many authors conduct collaborative research. But

on the other hand, many authors have conducted research related to the waqf forest as the sole author.

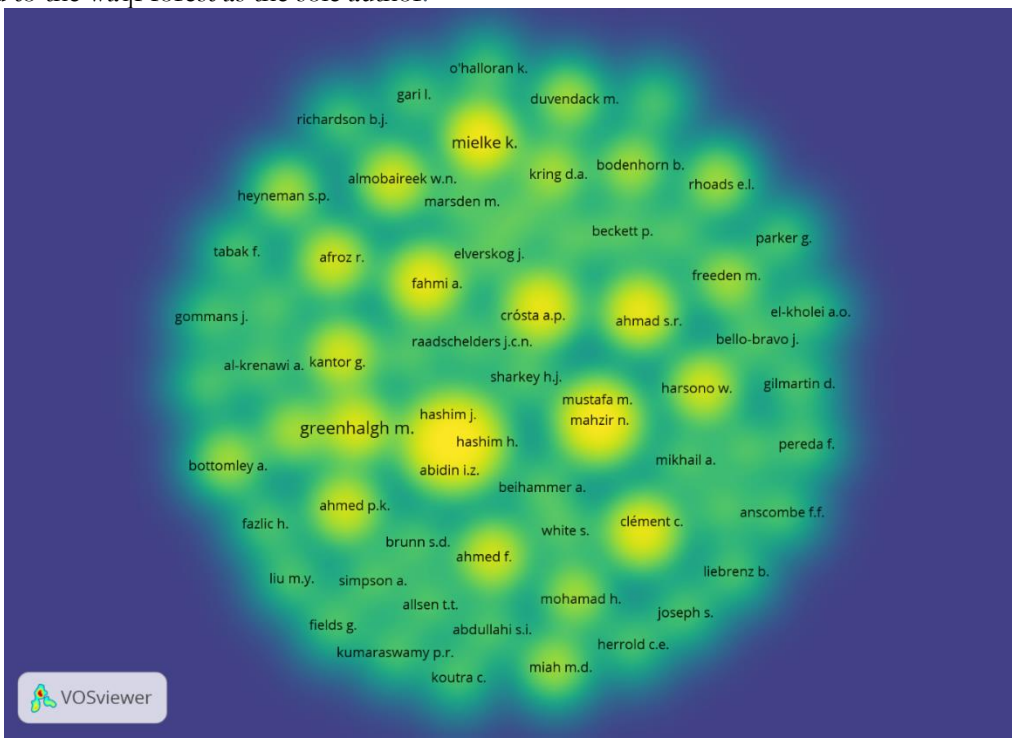


Figure 3 Density Visualization Authors

The number of articles written by each author can be seen from Figure 4Density Visualization Authors. The brighter the yellow light indicates the number of articles written by the author. From the picture above, it can be seen that the authors who publish the most waqf forest articles are Hashim J, Hashim H, Abidin IZ, Mustafa M, and Mahzir N.

2. Co-Authorship Organizations

In bibliometric analysis, institutions can be seen where they come from. Through this analysis, the results of institutions that publish a lot of publications are as follows

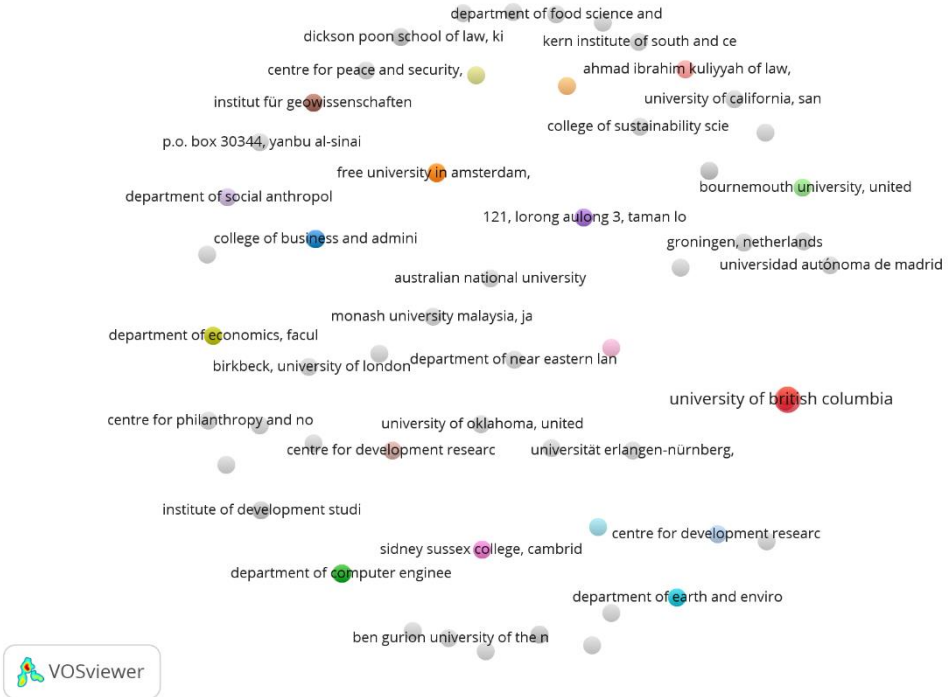


Figure 4: Network Visualization Organizations

In Figure5Network Visualization Organizations, it can be seen which institutions are productively publishing articles related to waqf forest. The colored circle image also shows which institutions often collaborate with other institutions in publishing articles. When viewed from the colored circles, institutions with the name University of British Columbia, Department of Earth and Environment, Department of Computer Engineering, Free University in Amsterdam, and College of Business and Administration are institutions that collaborate a lot with other institutions.

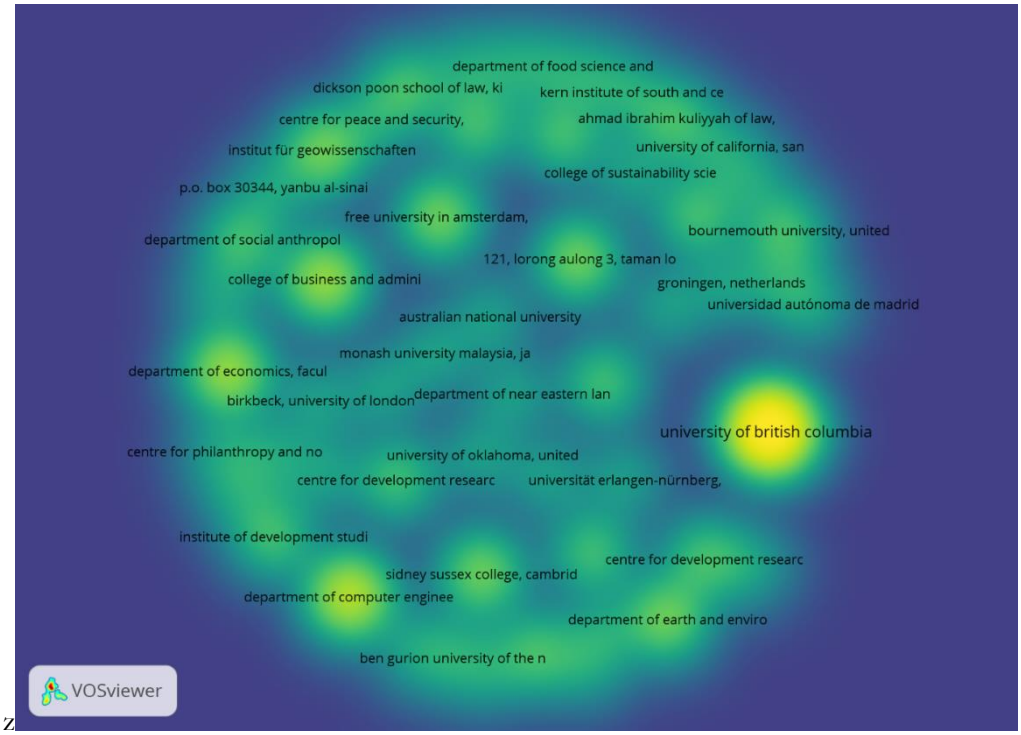


Figure 6 Density Visualization Organizations

In Figure 7the Density Visualization Organizations with the light above show which institutions publish the most articles on waqf forest themes. The brighter the light means the more articles published by the institution. From the picture, it can be seen that the institution that publishes a lot of waqf forest articles is the University of British Columbia.

3. Co-Authorship Countries

Subsequent analysis shows which country the article was published in. The results of the bibliometric analysis are shown in the following figure.

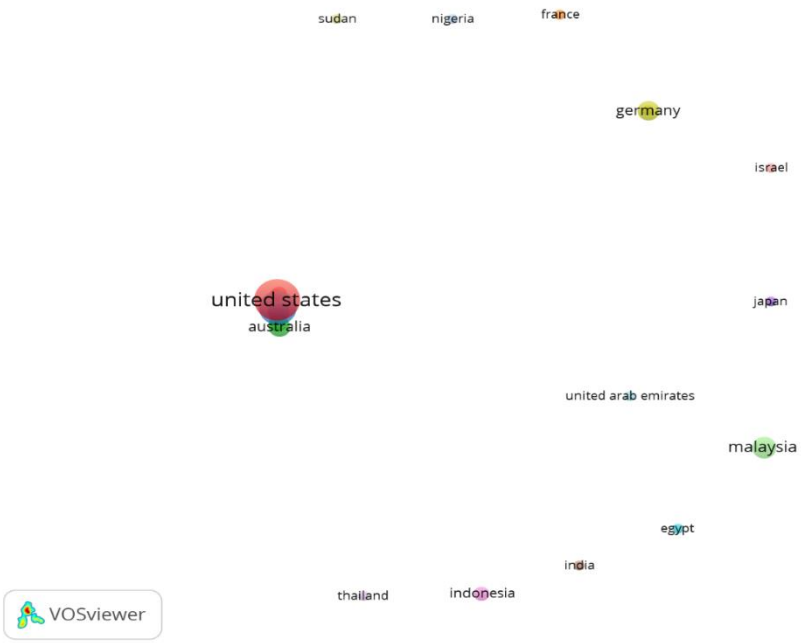


Figure 8 Network Visualization Countries

Based on Figure 9Network Visualization Countries shows which countries publish the most waqf forest articles. The bigger the circle, the more articles will be published. It can be seen from the picture, the country that publishes the most waqf forest articles is the United States. And if we enlarge the image again, we get the results in the image below which shows other countries that publish a lot of waqf and environment articles such as Australia, Canada, the United Kingdom, Netherlands, and Saudi Arabia.

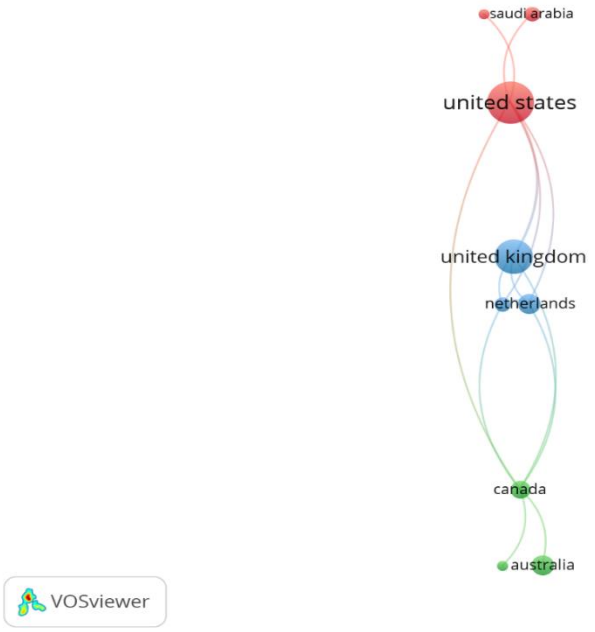


Figure 10 Magnification of Figure 6

Co-Occurrence Analysis

1. Co-Occurance All Keywords

Mapping using VOSviewer was also carried out to find the most used keywords in waqf forest articles. The results are shown in the image below.

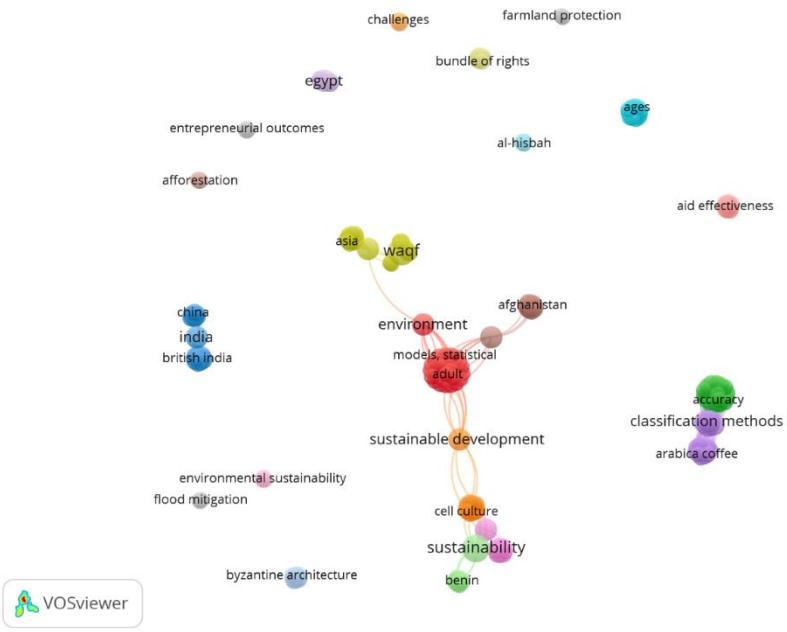


Figure 11 Network Visualization All Keywords

From Figure 12Network Visualization All Keywords the results show the most widely used keywords in waqf and environment articles. The results show 5 clusters with different colors. Each cluster with the same color indicates a very strong relationship. In the red cluster, keywords that are widely used are models, statistical adults, and environment. In the green and purple clusters, the words that appear the most are accuracy and classification method. In the yellow cluster, the words that appear the most are waqf and asia. In the orange cluster, the words that appear the most are sustainable development and cell culture. In the blue cluster, the words that appear the most are China, India, and British India.

2. Co-Occurance Keyword (Title and Abstract)

In the image below, mapping is done to find out which keywords are seen the most from the title and abstract of each article. The mapping results are shown in the following figure.

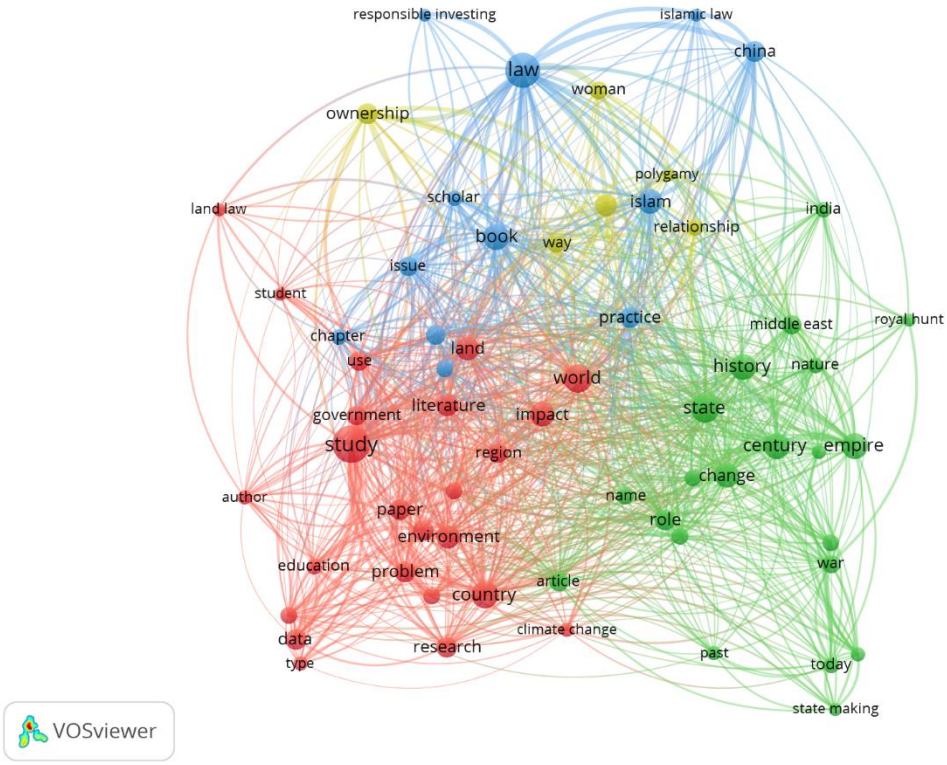


Figure 13 Network Visualization Keyword by Title and Abstract

Based on the results of keyword mapping derived from the title and abstract, 4 clusters with different colors were generated. Each cluster with the same color indicates a strong relationship between keywords. In the green cluster, keywords that are widely used in titles and abstracts are change, empire, nature, century, middle east, royal hunt, history, and article waqf institution. Keywords that are widely used in the red cluster are study, country, world, environment, education, climate change, land, impact, religion, land law, and government. The keywords in the blue cluster are law, book, issue, Islamic law, responsible investing, and practice. The most used keywords in the yellow cluster are relationship, ownership, woman, and way.

FINDINGS

Research results from bibliometric analysis mapping using VOSviewer *software show that there are quite a lot of research articles related to Waqf Forest* indexed by Scopus. *Waqf Forest* research was first published in 1986. The trend with this research theme began to increase in 2005 and the number decreased in 2021. Research related to *Waqf Forest* has been published by various journals and authors resulting in a variety of topics. The most used keywords in *Waqf Forest-themed articles* include: *environment*, *sustainability,* and *waqf*

The following is a summary of the results of bibliometric mapping using VOSViewer *software.*

Table 2: Summary of Bibliometric Mapping Results

No	Author with Most Publications	Most Relevant Keywords
1	Hashim J	Sustainable development
2	Hashim H	Governance approach
3	Abidin IZ	Classification methods
4	Mustafa M	Environment
5	Mahzir N	Sustainability
6	Ahmad SR	Article
7	Greenhalgh M	Attitude
8	Fahmi A	Conservation of natural resources
9	Ciement C	Education and sustainability
10	Mielke K	Environmental concerns

According to Jannah et al. (2021), the Waqf forest is a forest developed on waqf land. Thus, it is inevitable that after land or forest is designated or registered as a waqf forest, it will remain a forest until the end of time. The use of waqf for the environment through waqf forest management supports forest conservation and SDGs 16. In line with Abdullah's opinion (2018), the importance of waqf for waqf-based development plans is in line with the SDGs framework and is compatible with long-term sharia goals.

Waqf forests can be useful for social benefits, namely as a source of oxygen, springs, and the lives of many creatures. In the economic field, waqf forests can produce goods that are economic and are used by residents (provided that they are not destructive). Based on the meaning, pillars, terms, and objectives of waqf, waqf forest has relevance to the concept of waqf in Islam as well as following the provisions in waqf regulations in Indonesia (Sup, 2021).

Jannah et al's (2021) research related to sustainable forest management (SFM) agroforestry practices in waqf forests is estimated to be able to expand forest resources, increase biodiversity, forest health, forest production, protection functions, and contribute to social and economic development benefits.

Waqf Institutions play a major role in climate finance. Together, zakat and alms can play a role in overcoming the crisis due to climate change. Green waqf can be established as a special entity for the conservation of soil, water, plants, waste disposal, and others. Waqf can also be dedicated to research as well as to increasing consumer awareness and providing support for mitigating climate change. as has been done by SRI Funds, Islamic Green Funds, Green Bonds, and the Islamic Green Sukuk which can make a significant contribution to climate change (Obaidullah, 2018).

CONCLUSION

This study aims to examine and map the research that has been carried out by many researchers related to the development of research trends in the waqf forest. The data analyzed consisted of 70 articles indexed by Scopus from 1986 to 2021. The results showed that articles with the theme of waqf forest were still few carried out and published by various institutions. It is hoped that as technology develops, this article will continue to grow and the topic will also be wider. Popular topics and keywords are shown in this study have the potential to be developed further. In addition, several journals and authors who currently have published many articles can be used as references for future research.

Waqf forest -themed publication articles Hashim J, Hashim H, Abidin IZ, and Mustafa M. Then the most popular institution is calculated based on the number of publications and the number of links to other institutions, as shown by the results of bibliometric mapping is the University of British Columbia. The bibliometric results also show that the countries with the most waqf forest articles published are the United States and Australia.

This research can be used as a basic reference to see how the graphic visualization of the development of research trends with the theme of the role of waqf forest in published scientific research, so that it can still be developed by experts. Recommendations for further research can refer to the most popular keywords that still have the opportunity to be discussed in more depth, for example regarding the speed of changing trends in waqf forests. Furthermore, to be able to perform a full bibliometric analysis using more elements studied or using other types of software tools to produce more comprehensive results.

REFERENCES

Abdullah M. (2018). Waqf, Sustainable Development Goals (SDGs) and Maqashid al-Syariah. *International Journal of Social Economists.* 45(1):158-172. two: https://doi.org/10.1108/IJSE-10-2016-0295

Abdullah SI. (2019). Financing Afforestation in the Organization of Islamic Cooperation Countries: What Role for Islamic Economics and Finance?. *JKAU: Islamic Eco.* 32(2): 161-177. DOI: 10.4197/Islec. 32-2.12

Ali K. Kassim S. (2020). Waqf forest: How Waqf Can Play a Role in Forest Conservation and Achievement of the SDGs?. *ethics.* 19(2):349- 364. DOI: 10.15408/ etk.v 19i2.16310

Budiman M. (2011). The Role of Waqf for Environmental Protection in Indonesia. *Proceedings of the 2nd Aceh Development International Conference (ADIC) 2011* ISBN 978-967-5742-02-6.

BWI. (2020). Environmental Conservation through Waqf Forest. Accessed on February 8, 2022 from https://www.bwi.go.id/5427/2020/08/31/kementrian-agama-support-pelestarian-lingungan-live-via-program-hutan-wakaf/

Jannah M, Ali KM, Fatria BL, Sarkawi AA, Othman J. (2021). Enhancing Waqf Forest Sustainability Through Agroforestry: Case Study from Bogor Waqf Forest, Bogor, Indonesia. *Journal of Islamic & Social Sciences*. 7(1):57-71. doi: https://creativecommons.org/licenses/by-sa/4.0/

Obaidullah M. (2018). Managing Climate Change: The Role of Islamic Finance. Islamic Economic Studies. 26(1):31-62. DOI: 10.12816/0050310

Robani A, Salih K. (2018). Positioning Islamic Gift Economy For Sustainable Development at The Local Level. *Humanities & Social Science Reviews*. 6(2):111-120. two: https://doi.org/10.18510/hssr.2018.6214

DFA Soup. (2021). The Relevance of the Concept of Waqf Forest with the Concept of Waqf in Islam. *Islamic Economist Journal*. 7(1):56-63. doi: https://doi.org/10.21111/iej.v7i1.6430

Yakob *et al.* (2017). Waqf as a Means of Forest Conservation Alternative for Malaysia. *Advanced Science Letters*. 23(5): 4860-4864. DOI: https://doi.org/10.1166/asl.2017.8928