

# A Systematic Literature Review of Natural Resource Management and Environmental Conservation through SASI Customary Law in Indonesia

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management, environmental conservation, integration of sasi with religion, implementation of sasi as local wisdom, and challenges of sasi.

**Keywords:** Conflict Management, Environmental Conservation, Natural Resource Management, Sasi Customary Law, Systematic Literature Review (SLR)

**Abstract:** Indonesia, as a country with the most significant biodiversity in the world, must face severe challenges in protecting resources from over-exploitation of marine and coastal resources and exploitation that is not environmentally friendly. The customary law of Sasi prohibits taking specific natural resources in customary areas and within a certain period. This research aims to classify scientific articles related to natural resource management and environmental conservation through sasi customary law using a Systematic Literature Review (SLR). Data collection techniques were obtained from scientific article databases consisting of Emerald, Google Scholar, JSTOR, ProQuest, SAGE JOURNALS, ScienceDirect, SPRINGER, and Taylor & Francis. Data was collected from scientific articles published in the last five years (2019-2023). Data was obtained from the database using the keywords "management conflict," "utilization of natural resources," "environmental preservation," "environmental conservation," "traditional management system of resources," "sasi traditional law," and "sasi customary law." The data analysis technique used is thematic analysis, which aims to obtain theme patterns based on collected data. The Systematic Literature Review (SLR) search results obtained 199 scientific articles; by the last stage, it had become 15 selected scientific articles. The selected articles discuss resource

## Introduction

Indonesia is an archipelagic country consisting of 17,508 islands, inhabited by a population of more than 275 million people; hence, Indonesian society has a plural level or a diverse, plural society (Gordyn, 2020; Hefner, 2020; Priyadi & Zaky, 2018). Plural societies that maintain traditional traits are familiar with the surrounding environment well (Damanik & Sinaga, 2022; Pranata et al., 2021). Traditional communities harmoniously coexist with various natural ecosystems and are familiar with different ways of managing resources and preserving the environment.

Indonesia is also referred to as the country that has the most significant biodiversity in the world due to its large area, geographical location, and typology of ecosystems dominated by the ocean (Nugroho et al., 2021; Pramudya, 2020). Indonesia, as the country with the most significant biodiversity in the world, must face severe challenges in protecting resources from overexploitation of marine, coastal, and exploitation resources that are not environmentally friendly to result in a decrease in marine products (Phelan et al., 2020; Suharti et al., 2021). Natural resources such as water and air are essential resources for human survival.

Natural resources also found on land and in the waters are resources that not only meet the needs of human life but can also contribute to welfare (Andriansyah et al., 2021; Mbow et al., 2021). Good natural resource management can improve welfare; however, inadequate management of natural resources will have a harmful impact, such as logging, exploitation of marine products, and others. Good resource exploitation must prioritize sustainability by forming conservation areas like national parks, forest parks, and natural tourism parks (Wang et al., 2022; Zhang et al., 2022).

The exploitation of marine resources that prioritize sustainability through conservation areas can be started from regional policies in managing marine resources and fisheries (Begum et al., 2022; Markandya, 2022). This management can be in the form of the role of the community in local wisdom. A human-centered development strategy is responsible for managing the resources owned according to the needs and the creation of welfare (Ahmad et al., 2022; Ioannides et al., 2021).

Local wisdom is a way of looking at survival strategies carried out by local communities to answer environmental problems (Albagli & Iwama, 2022; Sidiq et al., 2022). The nature of man as a social being is understood to be ecologically related to the environment in managing natural resources and preserving the environment (Mirzayevich, 2021; Schlüter et al., 2019). The ancestors taught this through local wisdom, which is still maintained. One form of natural resource management and environmental conservation with local wisdom is through customary law.

Sasi customary law is a form of local wisdom in conflict management carried out traditionally for generations (Tehupeiory, 2021; Soselisa, 2019). Sasi is a customary law prohibiting taking specific natural resources in Indigenous territories as a form of environmental conservation (Angga et al., 2021; Ratumanan & Marantika, 2019). Sasi also prohibits people from taking the results of natural resources determined in an Indigenous territory within a certain period until the Sasi ritual is reopened (Haulussy et al., 2020; Hennida et al., 2019).

The regulations aim to preserve the environment so natural resources can be managed correctly and sustainably. In this period, it is hoped that living things found in nature will

have time to breed in good conditions, resulting in more yields. This study aims to classify scientific articles related to natural resource management and environmental conservation through customary law using a Systematic Literature Review (SLR).

## Methodology

This research used a qualitative type of research. The Systematic Literature Review (SLR) model is used to identify, classify, and interpret the findings of relevant research results. Data collection techniques are obtained from a database of scientific articles, including Emerald, Google Scholar, JSTOR, ProQuest, SAGE JOURNALS, ScienceDirect, SPRINGER, and Taylor & Francis. Data was collected from scientific articles published in the last five years (2018-2022). Data was obtained from such databases using keywords "management conflict," "utilization of natural resources," "environmental preservation," "environmental conservation," "traditional management system of resources," "sasi traditional law," and "sasi customary law."

The data collection process is carried out in four stages. The first stage obtained the results of 199 scientific articles published in journals and proceedings. The second stage was then filtered into research located in Indonesia, and it became 106 scientific articles. The third stage re-screened only articles discussing customary law, which resulted in 26 scientific articles. The last stage, or the fourth stage, is to filter out articles that discuss customary law and use English or international publications so that it becomes 15 scientific articles.

**Table 1.** Stages of Systematic Literature Review

Phase	Keywords and Filter Process	Article Results
First	"Management conflict," "Utilization of natural resources," "Environmental preservation," "Environmental conservation," "Traditional management system of resources," "Sasi traditional law," and "Sasi customary law"	199
Second	Research locations in Indonesia	106
Third	Specifics about customary law sasi	26
Fourth	International or English-language publications	15
<b>Selected Articles</b>		<b>15</b>

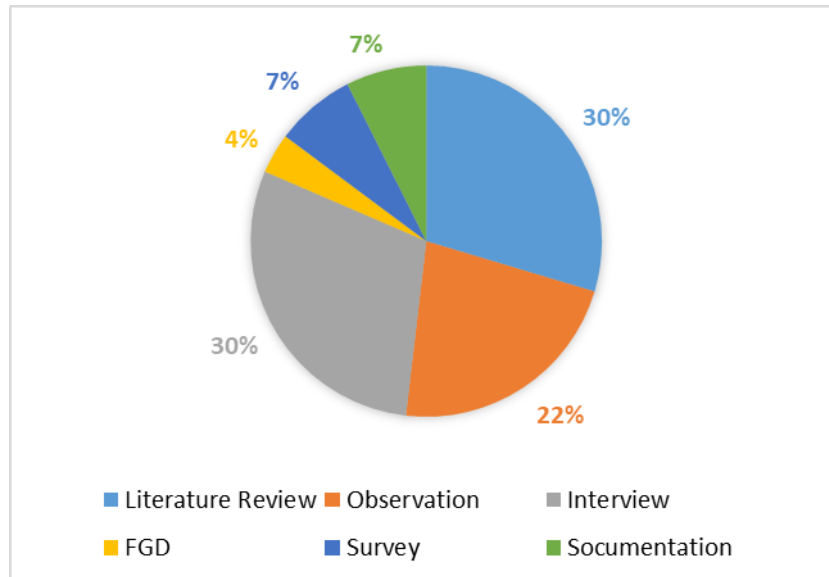
Source: Primary Data, 2023

The data analysis technique used is thematic analysis, which aims to obtain a theme pattern based on the collected data. A theme pattern discussed resource management, environmental preservation, integration of sasi into religion, implementation of sasi as local wisdom, and the challenges of sasi.

## Result and Discussion

### A. Results

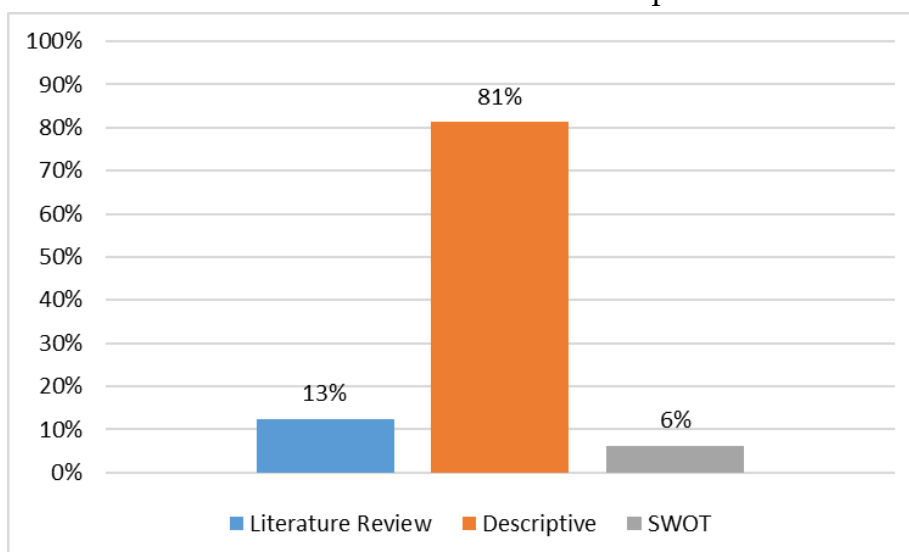
All 15 selected articles use qualitative methods. Several data collection techniques from the 15 articles, such as literature review, observation, interviews, Focus Group Discussion (FGD), surveys, and documentation, are presented in Figure 1.



**Figure 1.** Data Collection Technique

Source: Researcher, 2023

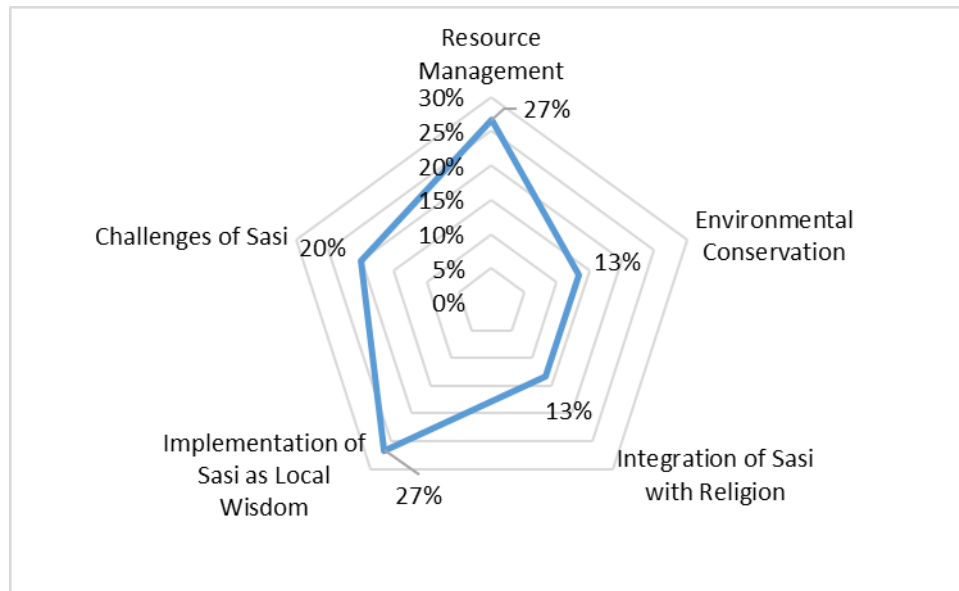
Based on Figure 1., data collection techniques using literature reviews and interviews are the most dominant, namely 30% with eight scientific articles. Meanwhile, FGD 4% with one scientific article is the least used data collection technique.



**Figure 2.** Data Analysis Technique

Source: Researcher, 2023

Based on Figure 2., descriptive data analysis techniques are the most dominant, at 81%, with 13 scientific articles. Meanwhile, the least used data analysis technique is Strength, Weakness, Opportunities, Threats (SWOT) 6% with a total of 1 scientific article.



**Figure 3.** Thematic Analysis

Source: Researcher, 2023

Thematic analysis is used as the basis for determining research variables. Based on Figure 3., the most discussed thematic analysis is resource management and the implementation of sasi as local wisdom by 27% with four scientific articles each. Meanwhile, the least discussed thematic analysis is environmental preservation and integration of sasi into religion, which is 13%, with two scientific articles each. Thus, from the overall results of the thematic analysis, this research will discuss resource management, environmental preservation, integration of sasi into religion, implementation of sasi as local wisdom, and the challenges of sasi.

## B. Discussion

### 1. Resource Management

According to Adiastruti et al. (2019), the sasi system has been practiced for generations as a customary rule. However, there is a need for local authorities to survive in the face of social, economic, and cultural changes by adopting modern methods and changing the temporal sasi time to permanent sasi. Sasi positively impacts marine resource management, including preserving fisheries resources, restoring fisheries availability, reducing exploitation rates, and increasing income. The economic development process should be linked to the Sasi system, as it is a strategy that can improve community welfare.

According to Haulussy et al. (2020), Sasi Lola activities have been carried out for a long time to keep natural resources sustainable. The case management system has clear and measurable boundaries, a system of rights, rules, sanctions, and monitoring mechanisms. The Sasi Lola custom can be preserved by legalizing customary institutions in village regulations, recognizing institutions in the region regulations, and increasing the younger generation's understanding of Sasi Lola activities.

According to Tehupeiry (2021), Sasi local wisdom has values and norms to protect forests, water resources, seasonal crops, and food crops. Environmental management with customary rules has the benefit of maintaining the kinship value of the regional unit and must be maintained. According to Laturette et al. (2021) The basic principle of the Sasi system is to maintain and guarantee the recognition of property rights, which means that theirs remains theirs, and ours remains ours.

## **2. Environmental Conservation**

According to Maturbongs et al. (2019), the Sasi system demarcates areas that are specifically customary areas from mining areas. According to Sapulette (2019) Current conditions show that Sasi institutional development faces a significant threat. Strategies can be carried out by improving management cooperation between institutions, strengthening regulations and sanctions, and increasing socialization in the community.

## **3. Integration of Sasi with Religion**

According to Hallatu et al. (2019), the Sasi tradition, which was initially purely based on cultural values, then experienced a combination of religious values in the community. Culture and religion can synergize, including protecting, managing, and preserving the environment, such as the tradition of customary sasi, church sasi, and mosque sasi. According to Wekke et al. (2018) Religious practices also foster environmental conservation, and they are called Sasimosque or Sasi Masjid.

## **4. Implementation of Sasi as Local Wisdom**

According to Tjoa et al. (2021), the level of Sasi implementation in Negeri Kailolo is relatively effective and efficient. The implementation of Sasi begins with an auction by the state government. The auction winner can run and act as the Sasi controller. The implementation of Sasi provides income with a proportional profit-sharing system to the community and the state government for the development of Kailolo. The role of the Sasi institution as a controller is to perform its function well. This is shown by the community's compliance with Sasi rules.

According to Ratumanan & Marantika (2019), Sasi is a prohibition to harvest marine and terrestrial resources within an undetermined period. Sasi aims to manage the results of planting and fishing to get the same treatment. Effective customary law makes people dare

not take natural resources before the time. The existence of Sasi brings a better quality of ecosystem and natural resources.

According to Subekti & Ryanto Budiana (2019) Sasi law manifests Maluku indigenous peoples' awareness and local wisdom regarding environmental management, protection, and preservation. With the existence of Sasi, the community does not manage natural resources in vain. Hence, utilizing natural resources is efficient and sustainable for the benefit and welfare of the community. Therefore, indigenous people can manage and use natural resources according to local wisdom through the Sasi system to create a balanced environment.

According to Baranyanan et al. (2019) Sasi law can be used as a model for forming local regulations in the environmental sector because, with local wisdom, the community can be responsible for protecting the environment. Sasi law upholds the values of environmental conservation and should not treat nature according to humans' will.

## 5. Challenges of Sasi

According to Sisinaru (2019) Village communities face economic issues and writing instruments that can provide absolute certainty regarding the authority to open and close Sasi Lompa. A regulation that regulates this authority shares the results fairly and creates tourism management regulations is needed.

According to Hennida et al. (2019) Globalization has resulted in the exploitation of resources and polluted places of community life due to industrialization. To deal with globalization, Sasi can develop a conservation function and adapt local communities to the impacts of globalization and climate change.

According to Angga et al. (2021), Sasi law can be applied to prevent Covid-19 transmission by closing and labeling objects and places that can potentially accelerate Covid-19 transmission, such as traditional markets, village offices, and schools.

## Conclusion

The Systematic Literature Review (SLR) search results obtained 199 scientific articles until the last stage became 15 selected scientific articles. The selected articles discuss resource management, environmental conservation, integration of sasi with religion, implementation of sasi as local wisdom, and challenges of sasi. Sasi positively impacts marine resource management, including preserving fisheries resources, restoring fisheries availability, reducing exploitation rates, and increasing income. Strategies for environmental conservation and preservation of the Sasi system can be carried out by improving management cooperation between institutions, strengthening regulations and sanctions, and increasing socialization in the community.



Culture and religion can synergize, including protecting, managing, and preserving the environment, such as the tradition of customary sasi, church sasi, and mosque sasi. Sasi law can be used as a model for forming local regulations in the environmental sector because, with local wisdom, the community can be responsible for protecting the environment. Globalization has resulted in the exploitation of resources and polluted places of community life due to industrialization. To deal with globalization, Sasi can develop conservation and adaptation functions of local communities to the impacts of globalization and climate change.

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