

## **Sustainable Development of Mangrove Ecosystem Policy in South Sulawesi from the Perspectives of *Siyāsah* and *Fiqh al-Bi'ah***

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**Abstract:** This research aims to examine the policy of sustainable mangrove ecosystem development in South Sulawesi from the perspective of *siyāsah* and *fiqh al-bi'ah*. The questions raised are how the construction and implications of the policy of sustainable mangrove ecosystem development are, and how the reformulation of the concepts of *siyāsah* and *fiqh al-bi'ah* affects the policy that has been set. The data in this research are primary data from interviews, observations, and documentation, as well as secondary data from relevant literature. Data collection methods were carried out through interviews, observations, and documentation to be analyzed descriptively qualitatively based on the approach of *siyāsah* and *fiqh al-bi'ah*. The results of the research show that the policy of sustainable mangrove ecosystem utilization is realized through the establishment of regulations related to mangrove management at both the national and regional levels. The policy is implemented through the formation of the Regional Mangrove Working Group (KKMD) of South Sulawesi as a group that works to preserve the mangrove ecosystem. The policies implemented have implications for legal aspects, aspects of the economy based on ecotourism, environmental sustainability, education, and religious social. The policy that has been set is in line with the concept of *siyāsah dusturiyah* and *fiqh al-bi'ah* based on *maslahah*. The perspective of *siyāsah dusturiyah* and *fiqh al-bi'ah* plays a role in strengthening and supporting government policies in the effort to preserve the sustainable mangrove ecosystem.

**Keywords:** Mangrove Ecosystems; Development Policies; *Siyāsah Dusturiyah*; *Fiqh al-Bi'ah*.

### **Introduction**

The mangrove ecosystem, with its biodiversity, provides numerous benefits and services to the local community and the environment. However, it remains under threat from population pressure, overexploitation, natural disasters, and a lack of practical policies (Mondal et al., 2021; Nesha Dushani et al., 2023). To what extent its implementation, the conservation of mangroves, and the enhancement of coastal communities' livelihoods remain a subject of debate (Ha et al., 2014). The issues arising from the utilization of mangrove ecosystems as a livelihood, such as the low awareness of the community, manifested through household waste disposal, exploitation, and exploration, are significant concerns (Vincentius, 2022). Furthermore, the phenomenon of increasing environmental crises has given rise to various disasters that pose a threat to human life (Avtar et al., 2021; Hanum et al., 2023; Prasetyaningsih et al., 2022; Suryani & Chasan, 2017). Therefore, it is deemed necessary to explore the benefits of sustainable mangrove ecosystem management and development policies.

Thus far, the existing literature has tended to examine policies related to mangrove ecosystem management and development from ecological, economic, and governmental perspectives, categorizing them into three trends. First, the management and development of mangroves are viewed from an ecological standpoint (Afonso et al., 2023; Gómez-Ruiz et al., 2022; Hafiz Iqbal & Nur Mozahid, 2022a; Hanggara et al., 2021; Le Heron et al., 2022; B. P. Nyangoko et al., 2022c; Quevedo et al., 2020). Secondly,

the management of mangrove ecosystems is assessed from an economic perspective (Aheto et al., 2016; Alam et al., 2022; Carandang et al., 2013; Mallick et al., 2021) including ecotourism (Nesha Dushani et al., 2023). Thirdly, the management and policy framework for mangrove ecosystem governance through government involvement (Arifanti et al., 2022; Asyiawati & Hindersah, 2020; Chamberland-Fontaine et al., 2022) certainly, the policy pertaining to the management and development of mangrove ecosystems (Asihing, 2014; Avtar et al., 2021; Mondal et al., 2021; Sunyowati et al., 2017; Swardhana & Jenvitchuwong, 2023). However, from the existing research, there has been no examination regarding the policies for the management and development of mangrove ecosystems from a religious perspective, particularly within the context of *siyāsah* and *fiqh al-bi'ah*, grounded in *maslahah* (public interest). The presence of this study is expected to contribute to the effectiveness of mangrove development policies in Indonesia, especially in South Sulawesi Province.

This paper aims to assess the implementation of sustainable mangrove ecosystem development policies in South Sulawesi from the perspective of *fiqh siyāsah* and *fiqh al-bi'ah*. This goal can be achieved by reviewing the construction and implications of sustainable mangrove ecosystem development policies in South Sulawesi and reviewing sustainable mangrove ecosystem development policies in South Sulawesi from the perspective of *fiqh siyāsah* and *fiqh al-bi'ah*. This can be a new approach to environmental issues (Suryani & Chasan, 2017). The policy of managing and developing mangrove ecosystems should be integrated into environmental politics and Islamic jurisprudence. This research seeks to address the coastal environmental issues that are currently global issues, by offering the concepts of environmental politics and Islamic jurisprudence as an Islamic response to the current environmental damage problems.

This study perceives that sustainable mangrove management policies have been formulated through regional regulations in the South Sulawesi Province, thus bearing significant implications for the sustainability of mangrove ecosystems in various aspects. The reformulation of policies outlined in the South Sulawesi regional regulations aligns with the paradigm of environmental governance and jurisprudence based on *maslahah* (public interest). The perspective of environmental governance and jurisprudence, as a religious standpoint, is of paramount importance in supporting government policies and serving as a foundation for raising awareness among the public regarding environmental conservation.

## Literature Review

### The Development of Mangrove Forests in the Context Ecology

Research related to the management and development of mangrove forests in ecological aspects continues to be conducted to address the issue of mangrove ecosystem degradation (Le Heron et al., 2022; Tegnan et al., 2021). According Nyangoko (2022b), The mangrove ecosystem is under threat from a complex array of factors, with impacts being felt at the local level, particularly in developing countries where communities often rely directly on natural capital for their livelihoods and well-being. This has resulted in mangrove forests coming under tremendous pressure due to deforestation and forest conversion over the past few decades (Hanggara et al., 2021). Sunyowati (2017), through his observations, has discovered that over the past five years, the condition of mangrove forests has experienced a decline in both quantity and functional area as a coastal buffer. This decline has been triggered by the relaxation of permits granted by city or provincial governments to business establishments, permits for the exploitation of locations by corporations, or environmentally unfriendly locations.

The degradation of mangrove ecosystem must not be allowed to persist continuously; therefore, managing the remaining mangrove forests sustainably and seeking solutions are of paramount importance (Hanggara et al., 2021). Chamberland (2022) He opines that mangrove forests play a crucial socio-ecological role, such as providing timber and other forest products, safeguarding coastlines from erosion and sea-level rise, bolstering healthy fisheries, and enhancing biodiversity. Conversely, according to Afonso (2023), mangroves serve as a buffer zone for marine systems, providing a barrier against contamination from continental sources by retaining metal pollutants. Therefore, the sustainability of the mangrove ecosystem

needs to be preserved to prevent mangrove forest degradation. This research is aimed at reinforcing the importance of preserving the mangrove ecosystem through a Sharia-based policy approach and environmental jurisprudence (*fiqh al-bi'ah*) grounded in the concept of *maslahah* (public interest), as a manifestation of Islamic support in preventing environmental damage.

### **Utilization of Ecotourism-Based Mangrove Areas**

The utilization of mangrove forests also has economic value and improves the welfare of the community (Awuku-Sowah et al., 2023; Carandang et al., 2013; Ha et al., 2014). Sunyowati (2017) stated that in addition to its influence on coastal ecological systems, mangroves also have economic potential that comes from three main sources: forestry, fishery estuaries, and coastal waters. Mangroves are considered to be a very productive ecosystem in tropical coastal areas. This region consists of valuable resources that provide services in terms of physical, biological, and socio-economic functions (Hafiz Iqbal & Nur Mozahid, 2022b; Yulianda et al., 2019).

Mangrove forests currently have even greater benefits, namely by developing them as ecotourism destinations (Asyiawati & Hindersah, 2020; Dushani et al., 2023). Asyiawati (2020) stated that the mangrove ecosystem in the Muaragembong Coastal Area has been utilized for fisheries cultivation and ecotourism activities, which have benefited the increase in community income. In the era of technological disruption, the opportunities for ecotourism development are growing larger. Dushani (2023) supports the establishment of an environmental protection fund from tourist entrance fees using a double pricing strategy, and the use of the fund for mangrove planting and the promotion of nature-based tourism activities. This means that the preservation of mangrove forests brings economic value to the well-being of coastal communities. This research can be a reinforcement of the importance of preserving mangrove ecosystems for the well-being of society through a maslahat-based *fiqh al-bi'ah* review.

### **Government Policy-Based Management of Mangrove Ecosystems**

The recent mangrove forest damage occurring in several countries has necessitated governments to formulate policies regarding the management and development of the mangrove ecosystem (Asihing, 2014; Lukman et al., 2019). In Bangladesh, specifically in the Sundarbans, extensive research is being conducted concerning mangrove forest degradation. This research serves as a foundation for crafting policies for the management of mangrove forests in the country (Begum et al., 2021; Mollick et al., 2022; Mondal et al., 2021). Mollick (2022) opines that the research findings regarding mangrove area management will prove beneficial to policymakers and mangrove area managers in formulating and implementing effective policies for the collective management of mangrove areas in Bangladesh and other nations. Furthermore, stakeholders' attitudes towards sustainable management are crucial as a means to assist planners, policy makers, and decision-makers (Mondal et al., 2021). In Ghana, policymakers and coastal management practitioners have recently embraced the concept of community-based and collaborative coastal and marine resource management (Aheto et al., 2016). Similarly, in Panama and Latin America, sustainable mangrove management policies aim to address mangrove degradation, reverse the trend of mangrove loss, and empower local stakeholders to participate in the mangrove forest governance process (Chamberland-Fontaine et al., 2022).

In Indonesia, a policy for sustainable management and development of mangrove ecosystems has also been initiated through a community-based mangrove management program (Damastuti et al., 2022; Nawari et al., 2021). Nawari (2021) believes that in Bengkalis Regency, Riau Province, the implementation of community-based mangrove forest management (CBMFM) with a carbon credit system is a potential approach to mitigate degradation. This management model is also in line with supporting the achievement of Sustainable Development Goals (SDGs). Similarly, according to Damastuti (2022) that rehabilitation efforts are mainly carried out through community-based mangrove management (CBMM) programs aimed at restoring important services such as food provision and coastal protection, as well as biodiversity conservation. Therefore, this research can strengthen policies for sustainable management and development of mangrove ecosystems through analysis based on the concept of *siyāsah* sharia in Islamic law.

### The Study of *Siyāsah* and *Fiqh al-Bi'ah*

*Siyāsah* is a study in the science of government and Islamic politics that is defined by Abdul Wahab Khallaf as a law that is established to maintain order and welfare, which is divided into several branches, including *siyāsah dusturiyah* (Nurfatima et al., 2022). *Siyāsah dusturiyah* is a branch of *siyāsah* that deals with the state's legislative system (Sodik & Setiyawan, 2021). To date, research on *siyāsah dusturiyah* has been rarely conducted and is limited to specific issues such as the protection of migrant workers (Ismail et al., 2021). Meanwhile, the study of *siyāsah dusturiyah* is still limited in terms of the sustainable development of mangrove ecosystems.

*Fiqh al-bi'ah* is a part of the study of fiqh that examines the environment and its preservation. *Fiqh al-bi'ah* is a study that is intended to minimize environmental problems (Indrajati et al., 2023). Environmental management in Islam can be done by avoiding environmental destruction (Yunita & Zahratul, 2020). To date, research related to *fiqh al-bi'ah* has been limited to a few aspects. First, the issue of environmental crisis in relation to the NU fatwa on environmental issues (Mufid, 2020), and water pollution (Astriani et al., 2023; Mohamad, 2023). Second, awareness of the environment in the perspective of Islamic legal philosophy (Munib et al., 2022). Third, a study of Law Number 11 of 2020 on Cipta Kerja from the perspective of *siyāsah dusturiyah* (Trinanda et al., 2022) and environmental fiqh (Sodik & Setiyawan, 2021). Meanwhile, studies of *fiqh al-bi'ah* related to the development of mangrove ecosystems are still rarely conducted, so this research is present to fill the gap in existing research and contribute to the resolution of coastal environmental issues.

### Method

This study constitutes field research involving the collection of data through interviews, observations, and documentation conducted in the South Sulawesi Province. Interviews were conducted directly and in-depth throughout the year 2023. The key informants in this research were two individuals affiliated with the management of Watershed Areas (DAS) and Forest and Land Rehabilitation (RHL) within the South Sulawesi Forestry Department and the South Sulawesi Maritime and Fisheries Department, both of which are part of the South Sulawesi Mangrove Workers Group (KKMD). The selection of KKMD workers was made with the consideration that their areas of work are directly involved in the preservation of mangrove areas and serve as intermediaries between the government and the community. Through interviews with KKMD employees, constructive research results can be achieved in addressing research questions related to the construction and implications of sustainable mangrove ecosystem management. In addition to direct interviews, data sources in this study were also obtained from the presentation of KKMD South Sulawesi during the Evaluation Meeting of the Implementation of KKMD East Regional Activities held at Hotel Harper Makassar on June 6, 2023, which coincided with the conduct of this research. Other primary data sources originated from observations and documentation of regulations related to mangrove conservation, especially South Sulawesi Regional Regulation Number 4 of 2023 concerning the Management and Development of Sustainable Mangrove Ecosystems. Secondary data was obtained through a review of relevant literature using the ScienceDirect.com and Google Scholar literature search websites.

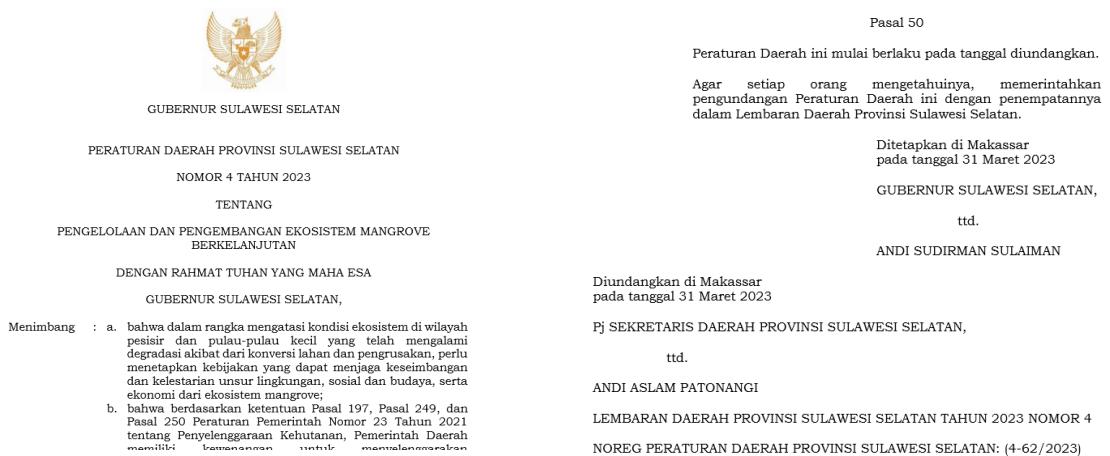
Problem-solving approaches using a *fiqh*-based methodology through critical analysis of sustainable mangrove ecosystem management policies are emphasized, with a focus on the perspectives of *siyāsah* and *fiqh al-bi'ah* grounded in *maslahah*. The Sharia-compliant approach is deemed capable of generating novel ideas to support mangrove ecosystem management and development policies. Various methods are employed to present findings, including the use of images, tables, and direct quotations from primary data. This research falls within the realm of qualitative research; thus, data analysis is conducted descriptively and qualitatively. The data analysis process encompasses describing, discussing, and scrutinizing data to comprehensively address the research problem.

## Results and Discussion

### Construction of the Sustainable Development of Mangrove Ecosystem Policy in South Sulawesi

The sustainable management and development policy of the mangrove ecosystem in South Sulawesi, as based on the data derived from observational findings, is delineated within the Regional Regulation of South Sulawesi Number 4 of 2023 regarding the Sustainable Management and Development of Mangrove Ecosystems.

**Figure 1: South Sulawesi Regional Regulation Number 4 of 2023 on the Sustainable Management and Development of Mangrove Ecosystems**



Source: The Author, 2023

The primary objectives of the management and sustainable development of mangrove ecosystems are further elaborated in Regional Regulation of South Sulawesi Number 4 of 2023, Article 3, which states that:

1. The purpose of sustainable mangrove ecosystem management is to:
  - a. Ensure the integrated and comprehensive sustainability of environmental and economic functions.
  - b. Protect mangrove ecosystem areas in coastal, shoreline, estuary, and small island regions.
2. The aim of sustainable mangrove ecosystem development is to:
  - a. Optimize and sustainably utilize mangrove ecosystem areas with regard to their production functions and ecosystem resource services, including both wood and non-wood products, ecotourism, and environmental services.
  - b. Empower local communities in utilizing and harnessing the functions of sustainable mangrove ecosystem areas to enhance the income and living standards of the local population.

Furthermore, the implementation of sustainable mangrove ecosystem management and development policies in South Sulawesi, based on observations and interviews, is carried out through the establishment of the South Sulawesi Mangrove Working Group (KKMD). As elucidated by Hidayat, the South Sulawesi KKMD plays a pivotal role in the management and development of sustainable mangrove ecosystems (Hidayat, personal communication, 2023). The activities conducted by the South Sulawesi KKMD, as presented during the Evaluation Meeting on the Implementation of East Regional KKMD Activities held at Hotel Harper Makassar on June 6, 2023, are outlined as follows:

"Activities carried out by the South Sulawesi KKMD include mangrove rehabilitation and conservation activities. The steps taken include, 1) detailing existing data on South Sulawesi mangroves, 2) requiring a review of regulations or regional regulations at the local level, both provincial and district/city, including reviewing Regional Regulation No. 4 of 2023 concerning Sustainable Mangrove Ecosystem Management, PermenKP Number 70 of 2022 concerning Determination of Regional Water Conservation Areas (Liukang Tupabbiring Island) and PerpemKP Number 71 of 2022 (Liukang Tangngaya Island) in Pangkep Regency, including identification of

districts/cities that already have regional regulations regarding sustainable mangrove development. 3) multi-stakeholder consolidation regarding action plans for mangrove rehabilitation and conservation at the beginning of the year, as well as implementing monitoring and evaluation so that rehabilitation and conservation activities can be sustainable (on a regular basis) and comprehensive evaluation at the end of the year. 4) South Sulawesi KKMD will recommend to the Regency/City Regional Government to include mangrove ecosystem management in the RPJMD and make it a priority allocation in the South Sulawesi Regional Revenue and Expenditure Budget (APBD)." (KKMD South Sulawesi, presentation, 2023)

The establishment of regional regulations and the formation of Coastal Community-Based Management Organizations (KKMD) have a significant influence on the management and development of mangrove ecosystems in South Sulawesi. Regarding government formation, in countries like Tanzania, there is a need for policy reforms related to the current environmental context, including the incorporation of clear legal mechanisms to engage communities in mangrove forest management. These reforms aim to enhance awareness of the multifunctionality of mangrove forests and commitment to participatory forest management (B. Nyangoko et al., 2022). This is because, in the context of sustainable development, both developed and developing countries need to implement policies that promote economic growth, environmental protection, and social well-being in resource decision-making (Razzaque, 2017). In addition, by observing the livelihoods of local communities which are closely related to mangrove forests, the results of research like this will provide initial information for policy interventions to ensure the sustainability of the mangrove ecosystem (Avtar et al., 2021). Thus, this research can serve as one of the considerations in formulating policies for more effective mangrove ecosystem management.

Observing trends in ecosystem utilization and public perception of various ecosystem services can provide evidence of active community involvement in protecting the mangrove ecosystem. In order to enable a more holistic and sustainable management, the importance of involving coastal communities in contextualizing management plans, especially in disaster-prone areas, is emphasized (Quevedo et al., 2020). Considering that the current mangrove ecosystem is under threat from a series of complex factors, with impacts experienced at the local level, especially in developing countries where communities often rely directly on natural capital for their livelihoods and well-being (Aheto et al., 2016; B. P. Nyangoko et al., 2022b). Roy dan Alam (2012) also mentioned that resources including biodiversity have been gradually lost over the past few decades. Therefore, the management carried out needs to be evaluated for its sustainability. This study is presented as a flashback of assumptions related to government policies that are considered ineffective. In fact, the government's actions by forming regional regulations and community participation in forming the KKMD are the right steps and have a significant influence in preventing damage to the mangrove ecosystem in South Sulawesi.

### **Implications of Sustainable Mangrove Ecosystem Development Policies in South Sulawesi**

The policy for the management and sustainable development of mangrove ecosystems has constructive implications in the legal domain. This is applicable in South Sulawesi, where there are several regulations serving as references for the preservation of mangrove ecosystems, both at the national, provincial, and district levels. The relevant regulations can be observed in the following table.

**Table 1. Regulations Pertaining to Mangrove Conservation in South Sulawesi**

<b>National Scope</b>	<b>Provincial Scope</b>	<b>District Scope</b>
- Government Regulation Number 22 of 2021 on the Implementation of Environmental Protection and Management	- South Sulawesi Regional Regulation Number 3 of 2014 on Environmental Protection and Management	- Maros Regency Regional Regulation Number 3 of 2015 on the Conservation, Management, and Utilization of Mangrove Forests
- Presidential Regulation Number 73 of 2012 on the	- Regional Regulation Number 4 of 2023 on Sustainable	- Minister of Marine Affairs and Fisheries Decree Number 71 of

National Strategy for Mangrove Ecosystem Management	Management and Development of Mangrove Ecosystems	2022 on the Regional Conservation Fisheries Sanctuary (KKPD) of Liukang Tupabiring, Pangkep Regency
	<ul style="list-style-type: none"> <li>- Technical Guidelines for Mangrove Planting by the Department of Marine and Fisheries of South Sulawesi Province in 2022</li> </ul>	<ul style="list-style-type: none"> <li>- Minister of Marine Affairs and Fisheries Decree Number 72 of 2022 on the Small Island Sanctuary of the Regional Conservation Fisheries Sanctuary (KKPD) of Liukang Tangaya</li> </ul>
	<ul style="list-style-type: none"> <li>- Establishment of Coastal Community Empowerment Groups (KKMD)</li> </ul>	

Source: The Author, 2023

The impact of regulations related to mangrove conservation in legal and political aspects has a significant influence. Indonesia has placed mangroves on its national priority agenda in an important effort to manage this ecosystem sustainably and achieve national climate commitments. This can build community initiatives for law enforcement and mangrove restoration and play an important role in raising awareness and actively protecting mangrove ecosystems (Cecep, 2015; Come et al., 2023; Najicha et al., 2022). Therefore, public awareness of government policies is increasing and they want forests to be managed sustainably (Mondal et al., 2021). Therefore, the existence of regulations related to the preservation of mangrove ecosystems provides a legal umbrella for the importance of maintaining the sustainability of mangrove ecosystems and enforcing sanctions against anyone who damages mangrove ecosystems.

The impact of mangrove ecosystem management on the community's economy can be seen in the use of mangroves in the ecotourism sector. Ecotourism is currently attracting business people and opening up economic opportunities in the tourism sector. Hidayat explained that sustainable management of mangrove areas can improve the welfare of coastal communities by making mangrove areas a tourist attraction. Apart from that, there is still economic potential that can be developed in the use of mangrove areas, namely the development of typical coastal culinary delights in mangrove ecotourism areas such as fish, crab, shrimp, and others combined with their respective local spices as icons in mangrove ecotourism areas. This is important, so that there is added value obtained when traveling to the mangrove area. Including the development of typical coastal products related to the use of mangroves such as mangrove coffee, development of coastal bird watching communities and others (Hidayat, personal communication, 2023).

Ecotourism is a concept that combines the interests of tourism with an environmental perspective. Ecotourism is basically a form of conservation movement carried out by the world's population (Cecep, 2015; Vincentius, 2022). Utilization of mangrove areas in the ecotourism sector can increase recreational value due to its contribution to conservation in the Sundarbans and protecting it from deforestation (Hafiz Iqbal & Nur Mozahid, 2022a). Likewise in Indonesia, specifically in the Dampier Strait, Raja Ampat, the biodiversity of the mangrove ecosystem is utilized for sustainable tourism (Sofian et al., 2019; Yulianda et al., 2019). Thus, the implications of mangrove management policies both on a national and regional scale greatly encourage increased community welfare.

The impact of mangrove ecosystem management policies on the environment is also very significant. Sunyowati (2017) stated that a sustainable and integrated mangrove area management policy is needed to prevent the destruction of mangrove areas in Indonesia. This can be achieved through several contributions such as greater acceptance of policies, long-term funding and maintenance support, mangrove restoration on a spatial scale, and the need for additional steps to reduce damage to mangrove

areas (Damastuti et al., 2022; Gómez-Ruiz et al., 2022). In this way, existing policies are an effort to prevent damage to mangrove areas.

The impact of sustainable mangrove ecosystem management policies is also felt in the education aspect. This is confirmed by the hopes of the South Sulawesi KKMD conveyed by Masnia Djabir that it is very important that wider community involvement is accompanied by increasing citizen literacy regarding the importance of maintaining and preserving the mangrove ecosystem. Therefore, it is necessary to integrate the use of mangroves as a means of education in relation to the *Merdeka Belajar* curriculum. Strengthening this certainly requires collaboration between mangrove system actors and the Education Department. Then encourage ecotourism areas as learning facilitators for educational units. Therefore, it is necessary to prepare a local content book on mangrove management which is linked to the typology of mangrove development in each region. "Finally, KKMD really supports the results of research and literature regarding mangrove ecosystems in the region, making it easier for further research and studies including its contribution to education." (M. Djabir, personal communication, 2023)

Apart from the impact on education, policies for sustainable management and development of mangrove ecosystems also have social and religious implications. The Islamic religion, with its various teachings and scientific treasures related to environmental conservation, is expected to be able to provide more awareness about the environment to its followers (Suryani & Chasan, 2017). So that the community is expected to have awareness and be able to manage the mangrove area environment well in accordance with Islamic teachings and applicable regulations (Indrajati et al., 2023). Through the concept of religion, society can be aware and pay attention to the importance of preserving the environment, the implications of which will return to society itself. The preservation of mangrove forests is a source of livelihood and economy for coastal communities, so it is our collective duty to care for them and support government policies as an effort to maintain environmental sustainability. Thus, this study is presented as a form of broader exploration regarding the impact of the issuance of a sustainable mangrove ecosystem management policy.

### **Reformulation of Sustainable Mangrove Ecosystem Development Policy in South Sulawesi from the Perspective of *Siyāsah* and *Fiqh al-Bi'ah***

Ijtihad in the formulation of policies related to the sustainable management and development of mangrove ecosystems is in line with the concept of *siyāsah dusturiyah* in Islamic law. *Siyasah dusturiyah* is a branch of *siyāsah* that deals with the country's legislation, including regional regulations (Sodik & Setiyawan, 2021). The existence of South Sulawesi Regional Regulation No. 4 of 2023 on the Management and Development of Sustainable Mangrove Ecosystems is a policy oriented towards the welfare of the community. The regional regulation that was issued is a product of *siyāsah dusturiyah*, as stated by Ibn Qayyim al-Jauziyyah that *ijtihad* or the formulation of law should ultimately lead to the enactment of a law in order to address various new cases due to changes in the times (Hamid & Putra, 2021). This includes the problem of environmental damage in coastal areas, which requires solutions from various perspectives, one of which is the perspective of *siyāsah dusturiyah*. Although the development of sustainable mangrove ecosystems is basically not known to classical scholars, the benchmark is the existence of political *maslahah* in it, so it needs to be a concern in Islamic studies. Even al-Thufi clarified that the *maslahah* that is prioritized should be something that is reasonable as long as it does not contradict the *nash* (Bajuri, 2019). Thus, the issuance of regulations related to the development of sustainable mangrove ecosystems that aim to preserve the mangroves is a matter of *maslahah*.

This opinion is a strengthening based on *maslahah* according to al-Syatibi and Abdul Wahab Khallaf. Al-Syatibi places more emphasis on the aspect of *maslahah* in every command or prohibition, including the prohibition of environmental damage (Syafruddin, 2023). In other words, the existing mangrove development policies aim to prevent environmental damage and serve as a form of legal protection for mangrove areas from being damaged. Meanwhile, Abdul Wahab Khallaf, emphasizes that preserving the environment from damage is included in the category of *al-dharuriyat*, which is the highest level in *maqāshid syari'ah* (Nofiardi & Samiran, 2023). The implementation of sustainable mangrove development policies is

an effort to preserve and prevent mangrove damage, which is already classified as an emergency. This is because the sustainability of mangrove ecosystems cannot be separated from the lives of coastal communities (Sodik & Setiyawan, 2021). This indicates that environmental protection (*hifdz al-'alam*) has entered the dimension of soul protection, considering how important environmental awareness is among Muslims (Suryani & Chasan, 2017).

The implementation of environmental fiqh (*fiqh al-bi'ah*) in society is considered to be able to minimize environmental problems in forest areas, including mangrove areas (Indrajati et al., 2023). Environmental management in Islam is carried out by avoiding environmental destruction (such as deforestation, water pollution, and others). If this is done, the environment will be damaged and humans themselves will bear the consequences (Yunita & Zahratul, 2020). This has been warned in the Qur'an, which refers to the term 'corruption' and is repeated in several verses (Mohamad, 2023). One of them is in Surah Al-A'raf, verse 56, which means "And cause not corruption upon the earth after its reformation. And invoke Him in fear and aspiration. Indeed, the mercy of Allah is near to the doers of good" (Qur'an Kemenag in Word).

Environmental management in Islam includes rules that prohibit humans from damaging the environment in a way that would be harmful. The emergence of political fiqh shows its commitment to state policies that are very influential in protecting the environment. Environmental fiqh also regulates how Islam actually manages the environment so that it is not damaged or harmful (Yunita & Zahratul, 2020). In addition, environmental jurisprudence explicitly states in the provisions of the law that it is mandatory to preserve the environment and that it is illegal to damage the environment (Yaqub et al., 2022). The urgency of mangrove conservation and the importance of policies that strengthen mangroves are one form of policy reform in efforts to protect mangroves. This study shows that the Islamic law (*siyāsah*) is biased towards legal products that lead to common good. Therefore, it is very important in the study of *siyāsah* and fiqh *al-bi'ah* based on *maslahah* that supports and strengthens policies related to the management and development of sustainable mangrove ecosystems.

The perspective of *siyāsah dusturiyah* and fiqh *al-bi'ah* is not only studied for its conformity with the South Sulawesi Regional Regulation Number 4 of 2023 on the Management and Development of Sustainable Mangrove Ecosystems. But further, the study of *siyāsah* and fiqh *al-bi'ah* is the initial step in the reformulation of Islamic law in responding to global issues, one of which is the issue of environmental damage (Munib et al., 2022). Thus, the study of environmental damage issues from the perspective of Islamic law is required to produce more legal products, such as laws or fatwas on environmental issues (Mufid, 2020). In addition to producing legal products, the solutions offered need to be supported by the public and law enforcement officials in order to be effective (Astriani et al., 2023). Therefore, there is a need for a progressive reform of Islamic law on the issue of environmental damage that contributes to the protection of the environment from damage.

## Conclusion

The construction of a sustainable mangrove development policy in South Sulawesi was carried out through the establishment of South Sulawesi Regional Regulation No. 4 of 2023 on the Management and Development of Sustainable Mangrove Ecosystems and the establishment of KKMD, which has a significant impact on the development of mangrove ecosystems in South Sulawesi. The government's efforts, both through policies and programs implemented by KKMD, have elicited a positive response from the community and relevant organizations. The implementation of sustainable mangrove ecosystem management and development policies has implications for legal aspects, economically-based ecotourism, environmental sustainability, education, and social-religious aspects. Policies related to mangrove conservation align with the concepts of *siyāsah dusturiyah* and fiqh *al-bi'ah* based on *maslahah* (benefit). The perspectives of *siyāsah dusturiyah* and fiqh *al-bi'ah* strengthen and support the policies for the utilization of mangrove areas.

This research provides a new understanding of the reformulation of sustainable mangrove ecosystem management and development policies through an analysis based on the concepts of *siyāsah dusturiyah* and fiqh *al-bi'ah* grounded in *maslahah*. This study contributes to previous research by offering *siyāsah dusturiyah* and fiqh *al-bi'ah* based on *maslahah* as considerations in policy-making. The presence of the *siyāsah dusturiyah* and fiqh *al-bi'ah* concepts is certain to further support and strengthen the government's position in mangrove conservation efforts. Thus, public awareness regarding the importance of environmental preservation can be enhanced through the cultivation of religious values.

This research is currently limited to regional aspects as it is focused solely on one specific area. Furthermore, the study is constrained to exploring the potential environmental damage caused by the utilization of mangrove areas in the ecotourism sector. Further investigation is warranted, encompassing a broader geographical scope to identify variations in mangrove area management across different regions. Likewise, additional research into the issues arising from ecotourism-based mangrove area utilization is highly recommended as part of an effort to provide solutions to ongoing environmental challenges.

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## Conflict of Interest

No potential conflict of interest was reported by the authors.

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