

## Islamic Law and Environment Issues: Indonesian Ulama Council's Fatwas on Climate Change

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### Abstract

Climate change is critical as it impacts people's lives on the globe. With the value of *rahmatan li al-'alamīn*, Muslims can contribute to the issue, one of which is by the issuance of fatwa. It is an opinion expressed by Islamic jurists regarding the legal position of a new societal issue when there is no explicit legal provision. Although non-binding, fatwas are essential guidelines for Muslims. In the context of climate change, fatwas can represent the moral position of Indonesian Muslims towards contemporary global issues. The study indicates that MUI has progressively responded to climate change through fatwas. These fatwas have direct and indirect effects and are conceptually related to climate change. However, fatwas that directly address climate change as a central issue are still lacking in MUI's fatwas.

### Abstrak

Perubahan iklim sangatlah penting untuk dikaji karena hal itu berdampak pada kehidupan manusia di dunia. Dengan nilai *rahmatan li al-'alamīn*, umat Islam dapat berkontribusi dalam permasalahan tersebut yang di antaranya dengan mengeluarkan fatwa. Fatwa merupakan pendapat yang dikemukakan oleh para ahli hukum Islam mengenai kedudukan hukum suatu persoalan masyarakat yang baru apabila tidak ada ketentuan hukum yang tegas. Meski tidak mengikat, fatwa merupakan pedoman penting bagi umat Islam. Dalam konteks perubahan iklim, fatwa dapat mewakili posisi moral umat Islam Indonesia terhadap isu-isu global kontemporer. Kajian ini menunjukkan bahwa Majelis Ulama Indonesia (MUI) telah bersikap progresif dalam menyikapi permasalahan ini melalui fatwa. Fatwa-fatwa tersebut dapat diklasifikasikan menjadi fatwa yang berdampak langsung dan tidak langsung secara konseptual yang terkait dengan perubahan iklim. Namun, fatwa yang secara langsung membahas perubahan iklim sebagai isu sentral masih belum ada dalam fatwa MUI.

### Keywords:

Climate change; Fatwa; Islamic Law; Adaptation and mitigation

### How to Cite:

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## Introduction

Climate change has been a critical issue as it substantially impacts the planet. The increase in the earth's temperature impacts changes the climate system. This also affects various aspects of nature and human life, such as the quality and quantity of water, habitats, forests, health, agricultural land and coastal ecosystems. United Nations Framework Convention on Climate Change (UNFCCC) Article 1, Paragraph (2) defines climate change as a change of climate that is attributed directly or indirectly to human activity. It alters the composition of the global atmosphere and the natural climate variability over comparable periods. In the 2023 report, the Intergovernmental Panel on Climate Change (IPCC) confirms that climate change would have substantial impact and losses on water availability, food production, health, well-being, cities, settlements, infrastructure, biodiversity and ecosystems (IPCC, 2023). Dealing with climate change requires the participation of all parties: government and non-government organizations and society in general. Besides, world religions, including Islam, can significantly address the issue.

Fatwa occupies an essential position in Islamic law as it is a legal opinion expressed by Islamic jurists (*fuqahā'*) in responding to a new problem that arises in society while no explicit legal provision exists. In Indonesia, fatwas are not binding (Riadi, 2020). A fatwa can only be binding if an authorized institution has made the fatwa into a law and regulations (Ansori, 2020). Even though they are not binding, fatwas are considered necessary in guiding Muslims' lives. Besides, fatwas can be a symbol of morality in responding to global issues.

Islam constitutes the principle of *rahmatan li al-'ālamīn*. In this case, fatwa institutions should be able to respond to current global issues such as the environment and climate change. In Indonesia, the Indonesian Ulama Council, or MUI, is the most prominent fatwa institution, consisting of representatives of ulamas from various Islamic organizations. MUI asserts its role as a fatwa institution serving the state and society. MUI has the following functions: 1) providing religious guidance for the Indonesian Muslim community; 2) offering religious advice and fatwas to the government and society; 3) serving as a liaison between religious scholars and the government in the context of national development; 4) enhancing cooperation among Islamic organizations and Muslim scholars to guide the community, especially Muslims (Ansori, 2020). Johar (2019) states that MUI fatwas serve as aspirational legal instruments in the formation of national legislation, such as laws related to pornography and Islamic banking.

## Method

This study focuses on examining fatwas issued by MUI. These fatwas include MUI Fatwa No. 22 of 2011 concerning Environmentally Friendly Mining, MUI Fatwa No. 04 of 2014 concerning Conservation of Endangered Animals to Maintain Ecosystem Balance, and MUI Fatwa No. 41 2014 concerning Waste Management. All fatwas are analyzed chronologically to see the contexts and the alignment of the fatwas with the needs of society in responding to environmental issues. This can also show MUI's attitude towards environmental issues.

## Conventions and Declaration on Climate Change

In the late 1980s, scientific evidence emerged, highlighting the potential risks of anthropogenic (human-caused) climate change. Reports such as the 1988 testimony of James Hansen, a NASA scientist, before the US Congress brought attention to the issue and contributed to the growing consensus among scientists regarding the role of greenhouse gas emissions in climate change. The Intergovernmental Panel on Climate Change (IPCC), established in 1988 by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO), played a crucial role in synthesizing scientific research on climate change and providing assessments to policymakers. Its reports raised awareness about the urgency of addressing climate change and influenced international discussions on the topic.

Global climate change issues started with the adoption of the United Nations Framework Convention on Climate Change (UNFCCC). UNFCCC is an international environmental treaty that was adopted on 9 May 1992 during the Earth Summit held in Rio de Janeiro, Brazil. It brought together world leaders, policymakers, and civil society representatives to address environmental challenges, including climate change. The UNFCCC was created as a response to growing concerns about global climate change and its potential impacts on the environment, ecosystems, and human societies. The UNFCCC itself is a framework agreement established for international cooperation to combat climate change and mitigate its impacts. It sets out general principles, obligations, and mechanisms for addressing climate change, aiming to stabilise greenhouse gas concentrations in the atmosphere at a level that prevents dangerous anthropogenic interference with the climate system.

The UNFCCC has since been supplemented by additional agreements, most notably the Kyoto Protocol (adopted in 1997) and the Paris Agreement (adopted in 2015). These provide more specific targets, commitments, and mechanisms for countries to reduce greenhouse gas emissions and enhance climate resilience. The Kyoto Protocol is an extension of the UNFCCC and represents a significant milestone in global efforts to address climate change. These efforts include Greenhouse Gas Emission Reduction targets for industrialized countries for the commitment period from 2008 to 2012, which vary for each country and are based on their historical greenhouse gas emissions. Second, three market-based mechanisms to help countries cost-effectively achieve their emission reduction targets. These mechanisms are (a) Clean Development Mechanism (CDM), which allows industrialized countries to invest in emission reduction projects in developing countries and receive carbon credits for the emission reductions achieved; (b) Joint Implementation (JI), which enables industrialized countries to undertake emission reduction projects in other industrialized countries and receive emission reduction units as credits; and (c) Emissions Trading that establishes a system for trading emission allowances among industrialized countries, providing flexibility in meeting their emission reduction targets.

The Paris Agreement is an international climate change treaty adopted in December 2015 under the United Nations Framework Convention on Climate Change (UNFCCC). It represents a global commitment to address climate change, to limit global warming to well below 2 degrees Celsius above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5 degrees Celsius. Some of the key features of the Paris Agreement include (a) Nationally Determined Contributions (NDCs), where each participating country is required to submit its voluntary climate action plan known as Nationally Determined Contribution (NDC) that outlines the country's efforts to reduce greenhouse gas emissions, adapt to the impacts of climate change, and provide financial and technological support to developing countries, (b) Adaptation and Finance: The agreement recognizes the importance of adaptation to the impacts of climate change, particularly for developing countries that are more vulnerable. It establishes mechanisms to support adaptation efforts and mobilize financial resources from developed countries to assist developing countries in their climate actions. The Paris Agreement has been widely ratified, with nearly all countries becoming party to the agreement. It represents a significant global commitment to combat climate change and lays the foundation for collaborative and coordinated international action to address this urgent global challenge.

In response to climate change, the Islamic world issued The Islamic Declaration on Global Climate Change (IDGCC), which was addressed ahead at the Paris Climate Change Conference in 2015–2016. The IDGCC was based on the Islamic faith to represent the mainstream Muslim ideology and Islamic perspectives on the environment that is heavily on scriptural references and interpretation that is considered a sincere call for action that is free of any political or national agendas (Abdellah, 2020). IDGCC called on the people of all nations and their leaders to phase out greenhouse gas emissions as soon as possible to stabilize greenhouse gas concentrations in

the atmosphere and commit themselves to 100 % renewable energy and/or a zero emissions strategy as early as possible. They specifically called on wealthier nations and oil-producing states to lead the way in phasing out their greenhouse gas emissions as early as possible and no later than the middle of the century.

### **Fatwas, Islamic Principles, and Climate Change**

Islamic principles regarding climate change can be taken from Islamic views of the environment. Here are some key Islamic principles related to the environment. The first is *tawhīd* (Oneness of God). The concept of *tawhīd* recognizes the unity and oneness of Allah. Muslims believe that all creation is interconnected and originates from Allah. This principle instills a sense of responsibility to care for the environment as a manifestation of Allah's creation. Muslim environmentalists interpret this principle as clarifying the unity of all creation to which humans belong (Koehrsen, 2021). This principle is used to be related to other principles, called *mīzān* or balance.

The second is *mīzān* (balance). Islam promotes the concept of balance and moderation in all aspects of life, including the environment. Muslims are encouraged to live in harmony with nature, avoiding excessive exploitation or degradation of natural resources. If applied to the concept of climate change, it can be interpreted that global warming, generating greenhouse gasses, will have an impact on the interconnected balance of God's creation (Koehrsen, 2021).

The third is *Khalīfah* (stewardship/trustee). Muslims are considered as *Khalīfah* (caretakers) of the Earth. It is their responsibility to act as responsible stewards, managing and protecting the Earth's resources while ensuring their sustainable use for future generations. The environmental crisis is a failure of the trusteeship, viewing the natural world as a barometer whose reading indicates how well a society has fulfilled its responsibility given to it by Allah (Al-Jayyousi, 2012). The concept of trustee is closely related to the principle of *amānah*.

The fourth is *amānah* (trust): Muslims are entrusted with the Earth and its resources. This principle emphasizes the concept of trust and accountability, highlighting the responsibility to manage and protect the environment sustainably, avoiding wastefulness and overconsumption. Humans should take care of God's creation of the earth. With the occurrence of climate change, humans have failed to carry out their duties as trustees or caretakers.

The fifth is *maṣlaḥah*, which refers to the pursuit of public interest or the welfare and well-being of individuals and society. It is a flexible principle that allows for the adaptation of Islamic rulings to address new and changing circumstances. Considering the threat of climate change, this principle is applied so that humans think and act globally and care about future generations (Koehrsen, 2021). Besides that, based on this principle, Islam must also be able to immediately take action to protect the most vulnerable (Jackson, 2023).

The sixth is *fiṭrah* (natural disposition). Islam teaches that every human being possesses a natural inclination or *fiṭrah* towards recognizing and appreciating the signs of Allah's creation in the natural world. Islam sees itself as *dīn al- fiṭrah* – a religion that seeks to evoke the primordial nature of human beings in accordance with nature (*fiṭrah*)– mainly because they are endowed with reason and free will, potentially resulting in deviating from the natural order, the order of which should be governed by natural law (*sunnatullāh*) that regulates the conservation of nature in a balanced way (Ramlan, 2019). Islam sees itself as *dīn al- fiṭrah* – the religion that seeks to awaken the primordial nature of human beings that conforms to the *fiṭrah* – especially since they are gifted with reason and free will that may cause them to diverge from the natural order of things. Therefore, this natural order of things and how they should be denotes the existence of a natural law (*sunnatullāh*) that governs the preservation of the *mīzān*. This principle encourages Muslims to observe and reflect upon the beauty and harmony of nature, fostering a sense of reverence and respect for the environment.

From these principles, it can be concluded that creation is complex and limited, but must function as a whole. Humankind and nature are part of creation, having the potential for virtue to do good deeds. Humans, who are gifted with virtues and reasoning, should not oppose God's will to guard the continuity of this earth because humans are the guardians of the natural order (Khalid, 2010).

In the development of Islamic law, at least four models of legal products are known as a result of the *ijtihād* process, namely *fiqh*, fatwa, court decisions and laws (Ansori, 2017). *The faqīh produces Fiqh or jurisprudence*, while the muftī produces fatwa. Court decisions, on the other hand, are decided by the *qāḍī* (judge), and laws are produced by the *majlis shūrā*. Based on these four legal products, a *fatwā* has a relatively more dynamic character because a fatwa usually responds to a particular legal question (Ansori, 2017). Fatwas occupy an essential position in Islamic law, as fatwas are legal opinions of Islamic jurists (*fuqahā'*) regarding a new problem that arises in society when there is no explicit legal provision, either in the Quran, Sunna and *Ijmā'* as well as the opinions of the previous *fuqahā'* (Riadi, 2010). Fatwas have different legal positions and binding powers from one Muslim country to another depending on the legal system and government structure adopted.

The Indonesian Ulama Council (Majelis Ulama Indonesia/MUI), one of the fatwa institutions, was founded in 1975. Even though some of the fatwas have been the government's request, MUI is outside the legal system and government. In Indonesia, fatwas are not binding. A fatwa can only be binding if it has been given a particular legal form by an authorized institution, such as by including the fatwa in laws and regulations or regional laws to become a positive law. There are Muslims who implement a fatwa as a personal religious awareness, not as a legal obligation (Mahfud, 2016). However, some of the MUI fatwas, especially those related to sharia economic operations in Indonesia, are often a source of positive law in Indonesia. Even though, normatively, fatwas are not binding, they are critical to Muslims as the reference of some laws (Purnamawati, 2015). In relation to environmental issues and climate change, fatwas is a symbol of morality. In other words, fatwa institutions are potential additional support from religious scholars to address current global issues, which in this case is the climate change movement.

### **Analysis of Indonesia Ulama Council Fatwas on Climate Change**

In 2023, when this study was conducted, 209 fatwas were recorded on the Indonesian Ulama Council's website (<https://mui.or.id/home-1/>). Hamzah (2018) posits that public requests or questions dominated the trend of MUI's fatwas from 2004 to 2017. Among these fatwas are wishing to marry Christmast by Muslims to Christians, smoking, Social Security Agency/BPJS legal status, and fatwas related to sharia economic activities (Hamzah, 2018).

Regarding climate change, MUI has issued several fatwas with three characteristics. These are fatwas directly related to environmental issues, especially global warming; fatwas indirectly related to environmental issues; and fatwas conceptually related to environmental issues. The following sections will address these three types of fatwas.

### **Fatwas Directly Related to Environmental Issues**

These fatwas regulate human actions that directly influence global warming, such as activities that result in carbon emissions into the atmosphere; actions that can prevent carbon from entering the atmosphere and store it on Earth (carbon sink), and/or actions that can increase/reduce the use of electrical energy. Among these fatwas is Fatwa No. 2 of 2010 concerning Recycling Water;

### **Fatwa No. 2 Year 2010 concerning Recycling Water**

This fatwa was issued in response to the increasing demand for water and decreasing quality of water sources due to increasing population, rapid urbanization and industrial development. This fatwa is based on the Quran and Hadith, as well as the opinions of scholars, views of government experts, and societal concerns. A relevant Quranic source regarding this issue is QS. al-Isrā' [17]: 26-27: "And do not spend wastefully. Indeed, the wasteful are brothers of the devils". Relevant hadiths used as a basis for the purity of water include the hadith narrated by Al-Hakim, Ibn Majah, and the three Imams, authenticated by Imam Ahmad.

This fatwa also considers the opinions of scholars regarding the method of purifying water that has become impure, including the views of Imam al-Shirazi in *Kitab al-Muhazzab* and Imam Ibn Qudamah in *al-Mughni*: "If you want to purify impure water, you must see; if the impurity is due to a change in the water's properties and it is more than two qullahs, it can be purified by (i) removing the cause of the change (smell, taste, color), (ii) adding more water, or (iii) taking some of it out. It becomes pure because the reason for its impurity was the change, and that has been removed (thus it becomes pure)." This fatwa also considers societal views, as seen in a workshop involving experts from Bogor Agricultural University, the Jakarta Water Utility, the Department of Health, the Ministry of Environment, and inputs from the Fatwa Commission meeting.

In this fatwa, recycled water refers to processed water according to the provisions of *fiqh*. With this, the water may be used for ablution, bathing, purifying uncleanness and '*istinjā*' or cleansing oneself from filth. Besides, the water is *halāl* for drinking and can be used for cooking and other purposes, as long as it does not endanger health. Technology has made it possible to recycle water that originally came from waste, mixed with dirt and unclean objects (*najīs*), to be used again. In its fatwa, MUI encourages the government and other parties to manage water recycling with technological sophistication and make this fatwa a guideline.

Using recycled water is a step towards adapting to climate change (Nugroho, 2014). This fatwa is critically supportive of overcoming the effects of climate change. Furthermore, The use of recycled water can contribute to climate change mitigation and adaptation in several ways. The first is water conservation. Studies estimate that for each degree of global warming, approximately 7 percent of the global population is projected to be exposed to a decrease in renewable water resources of at least 20% (UN Water, 2019). By using recycled water for non-potable purposes, such as irrigation of landscapes and agricultural fields, less freshwater is needed from traditional sources like rivers and aquifers. This helps to conserve freshwater resources, especially in regions facing water scarcity and drought, reducing the pressure on water supplies and ecosystems.

The second is energy consumption reduction. Reusing water can save energy by eliminating additional water treatment and associated water conveyance because reclaimed water usually offsets drinking water use and is used locally (EPA, 2012). By substituting freshwater with recycled water for non-potable uses, energy-intensive water treatment processes can be reduced or avoided, leading to lower greenhouse gas emissions associated with energy production. The third is wastewater discharge reduction. The traditional wastewater treatment processes often involve the discharge of treated effluent into water bodies. This can contribute to pollution and the release of greenhouse gases like methane. Recycling wastewater can minimise the volume of effluent discharged into water bodies, reducing the associated environmental impacts. The last is enhanced resilience to climate change. Reusing water can contribute to adaptation to climate change by providing an additional and sustainable source of freshwater (Saporiti, 2021). Communities can enhance their resilience to climate change impacts by diversifying their water sources and reducing reliance on vulnerable freshwater supplies.

### **Fatwa No. 22 of 2011 Concerning Environmentally-Friendly Mining Practices**

This fatwa was a response to the presence of mining activities that had an adverse impact on ecological, economic, social, and cultural aspects. Furthermore, this fatwa addresses the issue

of mining in Islamic law, including practices that cause environmental damage. This fatwa states that mining is prohibited from damaging ecosystems, causing water pollution, disturbing biodiversity, causing air pollution, contributing to global warming acceleration, encouraging the process of impoverishment and threatening public health.

This fatwa is based on sources from the Quran and hadith and the opinions of Islamic scholars, government experts, and societal views. The Quranic source used includes Allah's declarations that He has created and subjugated nature for the benefit of humankind, as mentioned in QS. Luqmān: 20, QS. al-Ḥajj [22]: 65, QS. al-Ra'd [13]: 17, al-Ḥadīd [57]: 25, and QS. Sabā' [34]: 10–11. Allah also emphasizes the relationship between faith and the prosperity of the earth and its inhabitants and the negative impacts of neglecting environmental conservation, as stated in QS. Hūd [11]: 61 and QS. al-Rūm [30]: 9. Allah forbids humans from causing corruption on earth after it has been improved, as stated in QS. al-A'rāf: 56: saying, "And do not cause corruption on the earth after its reformation." A similar source can be found in QS. al-Baqarah [2]: 60, QS. al-Qaṣāṣ [28]: 77, QS. al-Shu'arā' [26]: 183, QS. al-Rūm [30]: 41, and QS. al-Baqarah [2]: 195.

The fatwa also draws on several hadiths, including one from HR. Bukhari: "... Sa'id ibn Yazid (ra), who said: "I heard the Messenger of Allah say: 'Whoever commits injustice against any part of the earth, Allah will burden him with it seven times over on the Day of Judgment.'" This fatwa considers various scholarly opinions, such as that of Imam Ghazali in *Ihya'ulumiddin*, who stated that if someone bathes in a bathroom and leaves soap residue that makes the floor slippery, causing another person to slip and either die or sustain an injury, the responsibility falls on the person who left the residue and the custodian, as the custodian must clean the bathroom. This view serves as an analogy for the responsibility of those who damage the environment.

Mining is currently responsible for 4 to 7 percent of greenhouse gas emissions globally (Delevingne, 2020). It is widely recognized that available mining deposits are increasingly deeper and of declining ore grade (Rüttinger, 2016). This potentially leads to growing demands for water as well as tremendous mine waste, thereby raising energy consumption and increasing the industry's climate footprint.

### **Fatwa No. 41 of 2014 concerning Waste Management to Prevent Environmental Damage**

This fatwa was issued in response to the national waste problem, which possibly contributes to social, economic, health and environmental issues due to low public awareness. The issuance of this fatwa is based on the request for a fatwa from the Ministry of Environment. This fatwa (i) obliges people to maintain cleanliness and utilize goods for the benefit of avoiding wastage and excess, (ii) prohibits littering or items that can still be used, and (iii) recycling is a collective obligation (*kifāyah*).

This fatwa is based on sources from the Quran, hadith, opinions of Islamic scholars, and societal views. A well-known verse emphasizes the importance of cleanliness, as stated in QS. Al-Baqarah [2]: 222. Other Qurani sources used include QS. al-Baqarah [2]: 30 and QS. Hūd [11]: 61. Additionally, Allah forbids humans from leading themselves to destruction, as stated in QS. al-Baqarah [2]: 195. Similar to other fatwas related to environmental protection, this fatwa is grounded in Allah's declaration that nature is subjugated for the benefit of humanity, commanding good deeds and forbidding corruption on earth, as seen in QS. Luqmān [31]: 20, QS. al-Qaṣāṣ [28]: 77, QS. al-Isrā' [17]: 7, QS. al-A'rāf [7]: 56, QS. al-Shu'arā' [26]: 183, and QS. al-Rūm [30]: 41. Regarding the recommendation for recycling waste, this fatwa is based on Allah's prohibition against wastefulness and the squandering of valuable resources, as stated in QS. al-Isrā' [17]: 27 and QS. al-An'am [6]: 141. Several hadiths are used as a basis, including HR. al-Tirmidhi on how Allah loves cleanliness."

The scholarly opinion referenced is from Imam Zakaria al-Anshari, cited Imam Al-Ghazali, saying leaving soap residue in a bathroom, causing someone to slip and potentially get injured or die, holds responsibility for both the person who left the residue and the custodian, as the custodian must maintain cleanliness. This fatwa also takes into account national laws, such as Law No. 18 of 2008 on Waste Management and Law No. 32 of 2009 on Environmental Protection and Management. Additionally, the fatwa considers the opinions of the government and society gathered from Focus Group Discussions and seminars attended by government officials, academics, corporations, and the community.

Waste significantly contributes to greenhouse gas emissions in the form of methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>) emissions (Sudirman, 2018). The growth of population and consumption patterns lead to an increase in the amount of landfill waste and domestic waste. Thus, this fatwa strongly supports mitigation and adaptation to climate change, especially in terms of waste recycling. There are several ways in which recycling contributes to climate change mitigation, according to EPA (1999). First, recycling reduces emissions from energy consumption. Manufacturing goods from recycled materials typically requires less energy than producing goods from virgin materials. When people reuse things or make products with less material, less energy is needed to extract, transport, and process raw materials and manufacture products. Recycling aluminium cans requires significantly less energy (up to 95% energy savings) than producing new aluminium from bauxite ore. Recycling and waste prevention allow some materials to be diverted from incinerators, thus reducing greenhouse gas emissions, diverting organic wastes from landfills, and reducing methane released.

Second, recycling helps conserve natural resources and minimize the environmental impact of resource extraction, including deforestation and habitat destruction. Recycling paper and cardboard reduces the demand for new paper production, which is often linked to deforestation. Forests act as carbon sinks, absorbing and storing carbon dioxide.

### **Fatwa No. 30 of 2016 concerning the Law on the Burning of Forests and Land and Its Control**

The issuance of this fatwa is based on the consideration that the way the community utilizes forests and land often involves burning, thus causing damage and loss, particularly in peatland. This adversely affects transportation, health, education, social activities, the economy, biodiversity, and the environment. This fatwa is based on sources from the Quran and Hadith, the opinions of Islamic scholars, and governmental and societal views. Several verses from the Quran forbid humans from causing harm to the earth, such as in QS. al-Baqarah: 60, QS. al-A'rāf: 56, QS. al-Rūm: 41, QS. al-Nahl [16]: 90, and QS. al-Qaṣāṣ [28]: 77. These verses emphasize the importance of maintaining the earth's balance and warn against causing destruction, with severe consequences mentioned in QS. Yūnus: 27 and QS. al-Shūrā: 30. The hadith used prohibits oppression, as narrated by Aḥmad from Sa'īd ibn Zayd: "Whoever commits even a small act of injustice on the earth will be surrounded by seven layers of earth." The scholarly opinion referenced regarding the punishment for perpetrators of destruction is from Ali Haidar in *Ḍurar al-Ḥukkām*, Volume II, page 597, which states that direct destruction, regardless of the circumstances, requires accountability, even if it was unintentional. However, if the destruction was caused intentionally or recklessly, the perpetrator is obliged to bear responsibility. If it was unintentional and not reckless, then there is no obligation to bear responsibility.

Additionally, this fatwa considers the resolutions of Ulama Meetings. It refers to other fatwas issued by the Indonesian Ulama Council (MUI), such as Fatwa No. 22 of 2011 on Environmentally Friendly Mining and Fatwa No. 04 of 2014 on Preserving Endangered Species to Maintain Ecosystem Balance. It also takes into account national laws, including Laws No. 41 of 1999 on Forestry, No. 32 of 2009 on Environmental Protection and Management, No. 39 of 2014 on Plantations, Government Regulation No. 45 of 2004 on Forest Protection, Government



Regulation No. 71 of 2014 on Peat Ecosystem Protection and Management, Minister of Environment and Forestry Regulation No. P.32/MenLHK/Setjen/Kum.1/3/2016 on Forest and Land Fire Control, and Minister of Environment Regulation No. 10 of 2010 on Prevention Mechanisms for Environmental Pollution and/or Damage Related to Forest and/or Land Fires. This fatwa was developed through workshops, field visits, meetings, and studies conducted by the Fatwa Commission Team in collaboration with the Ministry of Environment and Forestry.

This fatwa shows where Islamic law stands on the burning of forests. This fatwa aims at forbidding “slash and burn” mechanisms to clear rainforests for palm oil plantations. These fires can last for weeks, displacing indigenous communities, destroying biodiversity and releasing carbon into the atmosphere. In 2015, wildfires caused respiratory illness for over 500,000 people and potentially caused 100,000 deaths. These fires also emitted more CO<sub>2</sub> in two months than Germany’s annual emissions (Balch, 2015).

Forests serve as crucial carbon sinks, capturing carbon from the atmosphere in trees and soils. When forests burn, they release substantial amounts of carbon dioxide (CO<sub>2</sub>) into the atmosphere, intensifying the greenhouse effect and contributing to global warming. The loss of forests disrupts the natural carbon cycle, as trees play a vital role in absorbing CO<sub>2</sub> through photosynthesis. Additionally, forest fires release other potent greenhouse gasses, such as methane and nitrous oxide, further amplifying their climate impact. The increased occurrence and severity of forest fires can be attributed to climate change-induced factors such as rising temperatures and prolonged droughts, creating conditions that are more conducive to fire ignition and rapid spread. Effective forest management practices are crucial to address this issue.

### **Fatwas Indirectly Related to Environmental Issues**

The following fatwas are not directly related to preventing human activities that cause carbon emissions into the atmosphere or mitigation actions such as carbon sequestration, which involves the absorption and storage of carbon dioxide from the atmosphere into natural reservoirs like forests, soil, and oceans. Instead, this fatwa is more aimed at environmental activities that can address climate change issues, either unintentionally or indirectly.

### **Fatwa October 1983 concerning Population, Health and Development**

This fatwa was issued to guide the Indonesian Muslim community in preserving development, particularly in the fields of population, health, and the environment. The fatwa mentions little about environmental issues. Its primary focus is to support government programs related to the population, such as transmigration and family planning. Regarding environmental concerns, the fatwa promotes awareness of balanced and sustainable environmental practices.

This fatwa emphasizes the obligation of community members as individuals oriented towards the future and the safety of human life, which Allah approves. The source used is from QS. Luqman: 14: “And We have enjoined upon man [care] for his parents. His mother carried him, [increasing her] in weakness upon weakness, and his weaning is in two years. Be grateful to Me and your parents; to Me is the [final] destination.” Although the emphasis on environmental issues is minimal, it indicates that Indonesian Islamic scholars have long been concerned about the environment.

### **Fatwa on Smoking 2009**

The Indonesian Ulama Council (MUI) issued a fatwa on smoking during the Third Plenary Session of the Indonesia Commission of Fatwa Ulama in Padang Panjang, West Sumatra 2009. However, the prohibition on smoking was not explicitly stated, as some participants deemed it *ḥarām* (forbidden), while others considered it *makrūh* (disliked). The chairman of the session decided that smoking is considered *ḥarām* for children and pregnant women when it is done in

public places. Meanwhile, the ruling for smoking in other situations was declared *khilāf* (subject to differing opinions). Many are unaware of the impact of smoking on climate change. The report by the World Health Organization explains that the production and consumption of tobacco have a detrimental impact on global warming, resulting in the release of 80 million tonnes of carbon dioxide (CO<sub>2</sub>) annually that this emission is equivalent to the carbon footprint generated by 17 million cars running on gasoline each year (WHO, 2022).

#### **Fatwa No. 4 Year 2014 concerning the Protection of Endangered Species to Maintain Balanced Ecosystems**

This Fatwa is issued in consideration that many endangered species, such as tigers, rhinos, elephants, orangutans, and various types of mammals, aves and reptiles, are on the brink of extinction due to human actions. In Islam, humans should be a vicegerent on earth (*khalīfah al-ard*) for the prosperity of all creatures. This fatwa is based on sources from the Quran, hadiths, scholarly opinions, governmental expertise, and societal developments. The verses of the Quran used include those commanding kindness among living beings, including endangered species (QS. al-An'ām [6]:38), affirming human responsibility as stewards of the earth (QS. al-Baqarah [2]: 30), emphasizing the purposefulness of all creation (QS. Āli Imrān [3]: 191), and prohibiting harm to the environment as stated QS. al-A'rāf [7]: 56: "... And do not cause corruption on the earth after it has been set in order (by Allah)".

Several hadiths are cited, encouraging compassion towards all creatures, promoting actions for wildlife conservation, and prohibiting the senseless killing of animals. The hadiths include the one from Jarir ibn Abdullah (may Allah be pleased with him) reported: The Messenger of Allah (peace be upon him) said: "Show kindness to every living creature on the earth, and you will be rewarded by the One who is in the heavens." (Reported by Abu Dawood, At-Tirmidhi, and Al-Hakim) This hadith emphasizes the command to show compassion to all living beings on earth, including animals. This is followed by the hadith from Jabir ibn Abdullah and 'Amr ibn Syarīd.

Additionally, scholarly opinions, such as those from Dr. Ahmad Yasin Al-Qaralah, affirm that Islamic law mandates species preservation. This fatwa also refers to national laws such as Law No. 5 of 1990 concerning the Conservation of Natural Resources and Ecosystems, Law No. 41 of 1999 concerning Forestry, Government Regulation No. 7 of 1999 concerning the Conservation of Plant and Animal Species, and Government Regulation No. 8 of 1999 concerning the Utilization of Plant and Animal Species. Focus group discussions (FGDs) were conducted with government agencies and environmental organizations to understand the developments in society. Field visits in Riau witnessed conflicts between humans and wildlife, and opinions and inputs were gathered during the Plenary Meeting of the Fatwa Commission.

According to this Fatwa, protecting and conserving endangered species shall occur by way of (a) guaranteeing their primal needs, including food, shelter and the need to reproduce; (b) not burdening them with loads (weight) beyond their capacities; (c) not placing them in the vicinity of other animals which may harm them; (d) conserving their habitats; (e) preventing illegal hunting and the illegal wildlife trade; (f) preventing human-wildlife conflict; and (g) maintaining animal welfare.

Wildlife conservation and climate action are often considered separate environmental issues, but the two are utterly intertwined (Kreider, 2022). While addressing climate change contributes to the preservation of global wildlife populations, it is equally valid that wildlife conservation plays a vital role in maintaining a stable climate. By safeguarding wildlife, we contribute to preserving our planet and, ultimately, ourselves.

Terrestrial animals promote healthy habitats that capture and store carbon to prevent further climate warming. Tigers are vital for carbon-absorbing forests, deterring habitat degradation, and regulating species populations. In India, tiger-inhabited forests have triple the

carbon density, preventing deforestation and combating climate change (Kreider, 2022). Losing tigers reduces forest carbon storage, exacerbating global warming. Forest elephants contribute to carbon storage and biodiversity. They suppress invasive plants, allowing large trees to thrive and store carbon. Elephants aid in seed dispersal, enrich the soil with their dung, and enhance Africa's rainforests' carbon storage capacity. Without elephants, the region could lose 7% of its carbon storage capability, equaling three billion tons of carbon (Kreider, 2022). Diverse aquatic wildlife, including sea otters, play a crucial role in maintaining ecosystems and mitigating ocean acidification from global warming. Sea otters, preying on sea urchins that consume kelp, support a healthy kelp population, a potent carbon sequester.

### **Fatwas Conceptually Related to Environmental Issues**

These particular fatwas were not originally explicitly intended for environmental issues but instead serve as a principle or general behavioral guideline. However, if consistently applied, it can indirectly address the issue of global warming.

### **Fatwa Dated 20 October 1975 Concerning Modest Living**

This fatwa was issued after the speech of the President of the Republic of Indonesia at that time regarding the advice for a modest life. The Quranic foundation used includes the prohibition of wastefulness as stated in QS. al-Isrā' [17]:26-27: "...And do not spend wastefully. Indeed, the wasteful are brothers of the devils, and ever has Satan been to his Lord ungrateful." Additionally, evidence from QS. al-An'ām [6]:141 regarding the prohibition of exceeding limits and corruption as mentioned in QS. Āli-Imrān [3]:161, the prohibition of bribery as stated in QS. al-Baqarah [2]:188, and Hadith narrated by Abu Dawūd and al-Tirmidhī where Prophet Muhammad cursed both the giver and the taker of bribes, are also used.

The command to live simply is emphasized in QS. al-Furqān [25]:76: "And those who, when they spend, are neither extravagant nor niggardly, but hold a just balance between those (extremes)." This fatwa also refers to the national legal system, explicitly stated in the philosophical foundation of the Indonesian nation's way of life as outlined in the Preamble and the body of the 1945 Constitution.

This fatwa, among other things, urged the religious leaders to explain to the public the teachings of Islam, which advocated a modest life, prohibiting luxurious and extravagant living, especially from earnings (*harām*). When this fatwa was issued in 1975, climate change had not yet become a global issue. However, modest living is a principle that can overcome social problems, including climate change, especially the impact of excessive consumption and lifestyle. Overconsumption undermines the Islamic principle of *tawhīd*, where the Oneness of Allah and His creation teaches that benefiting one benefits all. Prophet Muhammad emphasized that doing good to any living thing is rewarding, while harming one thing is akin to harming everything (Abdul-Matin, 2010).

People's lifestyles contribute to climate change and environmental degradation. Schlossberg uncovers the complex systems and processes involved in producing, transporting, and disposing of the products we consume, highlighting the carbon emissions, pollution, and resource depletion associated with each step (Schlossberg, 2022). Food waste contributes to climate change by wasting resources and releasing methane gas when it decomposes in landfills. The fashion industry contributes to greenhouse gas emissions because it involves energy-intensive processes and the use of chemicals. Such an industry causes deforestation for raw material demands like cotton and creates a carbon footprint associated with transporting garments globally. In turn, the process contributes to pollution and resource wastage when disposing of unwanted clothing. Personal vehicles, air travel, and the transportation of goods create carbon footprints.

### Comparison to Other Jurisdictions' Fatwas on Climate Change Malaysia

Only a few fatwas in Malaysia are related to the environment, especially those directly addressing climate change. There is only one fatwa issued by the state of Perlis, known as the Fatwa on Environmental Pollution 2018. According to this Fatwa, harming the environment and causing direct physical harm to humans, animals, and plants is forbidden (*ḥarām*) unless there is a greater beneficial purpose or to prevent clear harm. Muslims are obliged to avoid any activities that can cause environmental pollution, which disrupts ecosystems and damages life. Environmental conservation is encouraged and considered a righteous act.

Therefore, the Indonesian Ulema Council (MUI) is more progressive compared to its counterpart in Malaysia when it comes to issuing “green fatwas” or those related to the environment and climate change. However, it should be noted that cigarettes, including electronic cigarettes, are explicitly banned by fatwas issued by several states in Malaysia.

### Egypt

Egypt's fatwa council, Dar al-Ifta, issued a monumental fatwa related to climate change. In the same year of the Conference of the Parties 27 (COP 27) in Sharm el-Sheikh, Egypt, Dar al-Ifta issued a charter regarding climate change (*First Eco-Friendly Fatwa Declares All Activities That Harm Climate Prohibited (Haram)*, n.d.) The charter contains several fatwas, and it was issued during Dar al-Ifta's 7th International Conference on 8 October 2022 ([Dar al-Ifta 7th Intl. Conf. Launches “Fatwa Charter for Combating Climate Change,” n.d.](#)). The charter was launched a few days prior to the start of COP 27. This act could be considered a meaningful gesture to emphasize the involvement of Muslim scholars in climate change issues.

The charter consists of several fatwas, such as the regulation to prohibit using hazardous materials, excessive energy use, waste, encroachment on agricultural land, waste disposal into the ocean, pesticides, and compound chemicals without respecting the terms of use. Other than the mention of the substances possibly affecting climate change, several interesting points are mentioned in the charter. The charter states the importance of every person's involvement in climate change for the current and future generations. Such statements give clarity to how Islam views climate change. Muslims need to act in accordance with environmental protection, specifically climate change. The charter also mentioned the role of fatwa bodies in the world, which can contribute to resolving world problems (Dar al-Ifta, n.d.). Such views are essential to support the adaptation and mitigation of climate change, especially by Muslims all over the world. One of the most critical aspects of this charter is that climate change (*taghayyur al-manākh*) is mentioned within the document. It states clearly the concern of this issue. As such, it allows other fatwa bodies to express their concern about climate change explicitly. This charter by Dar al-Ifta can influence other fatwa bodies in the world, such as MUI, to follow their path in drafting an explicit view on combating climate change.

It is also fortunate because COP 27 was held in Egypt in 2022. The charter has momentum and has not only influenced Egypt's domestic law to set a policy regarding climate change. The charter has potential influences, enabling each fatwa body to take necessary actions related to climate change.

### Climate Change Adaptations and Mitigations in Indonesia and the Correlation with Fatwas in Indonesia

Indonesia has been actively involved in international efforts to protect and preserve the environment. In the context of climate change, Indonesia has ratified several international conventions, such as the UNFCCC, Kyoto Protocol, and the Paris Agreement. Consequently, the state will streamline its policy from the international level to the domestic level.

This section focuses on Indonesia's effort to act in accordance with international conventions regarding adaptation and mitigation of climate change and its relation with fatwas in

Indonesia. Adaptation and mitigation are two common strategies to respond to climate change. These two strategies have their purpose. Adaptation objectives address climate change's impact, calling for changing our way of life, behavior, and systems to prevent or at least minimize the damage (*What Is the Difference Between Adaptation and Mitigation?* 2023). Mitigation objectives are to intervene in the causes of climate change. These strategies must work hand-in-hand to achieve the desired outcome, which is the reduction of emissions.

### **Indonesia's Adaptation and Mitigation Strategies**

In this section, two parts will look into the strategies for adaptation and mitigation by the Indonesian government. Two critical periods are divided into pre-Paris Agreement and post-Paris Agreement.

#### **Pre-Paris Agreement**

There have been various efforts before the enactment of the Paris Agreement in 2015. One of the most important documents during this period is the Kyoto Protocol. The protocol was effectively binding on 16 February 2005 after 55 parties ratified the protocol. This is the main legally binding agreement for all UNFCCC State parties regarding the governance of global response to climate change. The Kyoto Protocol has at least three important aspects (Aldrian et al., 2011). The first is the agreed effort to limit the rise of greenhouse gas emissions for developed states by 5% under the emission in 1990, which must be achieved in 2012. The second is to limit the rise of the earth's temperature maximum to 1,5 degrees celsius above the temperature before the industrialization period (around 1850). The third is the 450 ppm maximum concentration of CO<sub>2</sub>.

Indonesia issued several documents to support the effort to respond to the impact of climate change. National Action on Mitigation and Adaptation of Climate Change was promulgated in accordance with the recommendation during COP 13 in Bali. In addition, the Indonesian government promulgated several relevant regulations responding to the ratification of the Kyoto Protocol, such as Law No. 32 of 2009 concerning Environmental Protection and Management. This regulation can be seen as the "derivatives" of the Kyoto Protocol. There are several stipulations similar to the Kyoto Protocol in Law 32 of 2009. This Law mentioned the importance of protecting the environment from climate disasters. Further, Articles 15, 16, 17, and 18 stipulate the commitment of the Indonesian government to maintain the quality of the environment in accordance with the Kyoto Protocol.

#### **Post-Paris Agreement**

The Kyoto Protocol was considered unsuccessful. In 2015, the Kyoto Protocol has been replaced with the Paris Agreement. There are several notable differences between the documents. Prescriptiveness and differentiation are the notable features of the Paris Agreement (Paris Agreement, 2015). Prescriptiveness can be seen from the bottom-up approach of climate change policy. This allows State parties to determine their contributions depending on their capacity. The Kyoto Protocol focused on a top-down approach, which most State parties found challenging to achieve. Moreover, differentiation can be seen from the approach that there is no apparent differentiation between developed and developing states. As an example, all state parties have similar essential procedural mitigation obligations, yet each state can self-differentiate its substantive mitigation contributions through Nationally Determined Contributions (NDC) (Paris Agreement, 2015).

NDC is a critical concept in the Paris Agreement. Each state party must provide their NDC, which must be communicated to the others. Indonesia has been updating its NDC to the UNFCCC to implement this approach. The latest revised NDC was on 22 July 2021. Indonesia is targeting

to reduce its greenhouse gas emissions (GHG) unconditionally to 29% and conditionally (with international support) to 41% (WIT, n.d.). In addition, Indonesia has prepared a document that aims to address the future of climate change beyond Paris's climate targets. It is called Indonesia's LTR-LCCR 2050 document. These policies and documents strengthen Indonesia's target to achieve net zero based on the Paris Agreement.

Indonesia cannot achieve the target by only extraordinary measures. The involvement of various stakeholders from any level is required, not to mention the needs and the involvement of vulnerable groups, adat communities, and local communities. To an extent, Fatwas can be pivotal to achieving such a target.

### **Fatwas and Climate Change Adaptation and Mitigation**

It is not easy to find a direct relationship between the issued Fatwas in Indonesia and the adaptation and mitigation strategies adopted by the Indonesian government. From the above explanation, a couple of fatwas can be considered directly affecting climate change, even though they lack a clear connection. One of the notable fatwas that was issued after Indonesia ratified the Paris Agreement is Fatwa No. 30 of 2016 concerning the Law on the Burning of Forests and Land and Its Control. There are two essential aspects mentioned in the fatwa. First, it considers Law 32 of 2009 concerning Environmental Protection and Management as one of the basis of the fatwa. As previously mentioned, Law 32/2009 has a pivotal role in determining the path of Indonesia's policy to prevent climate change. The second important aspect is the provision that clearly mentions that forest fire that can cause adverse effects to others is *ḥarām*. It is stated that, "Burning forests and land, which can cause damage, pollution, loss to others, health problems, and other adverse effects is *ḥarām*."

Research has shown that forest fires heavily impact our ability to store carbon. Despite no explicit stipulation on climate change, it might be considered a positive response toward climate change. This is a common development when indirect responses to climate change are taking place (Peel & Osofsky, 2015). Even though climate change is not the main issue within the fatwa, it is still important to consider this fatwa as an effort to reduce the impact of climate change. In this matter, it can be implied that the decrease in our forest's ability to act as a carbon sink is prohibited.

However, finding the direct relationship between fatwas by MUI and its role in influencing the Indonesian government's strategy to prevent climate change remains challenging. MUI has also not issued a specific fatwa that directly stipulates climate change after the Paris Agreement. Nonetheless, it is necessary to accept that fatwas have always played an important role in Indonesian society. Fatwa influences a nation's law to a certain extent (Jackson, 2023). Despite its explicit absence in affecting the adaptation and mitigation policy on the governmental level, fatwas are helpful for implementation at the grassroots level and community engagement.

In order to prevent the impact of climate change, adaptation and mitigation strategies must be in place to avoid climate change implications. Adaptation (Article 7 of the Paris Agreement) and mitigation (Article 3-6 of the Paris Agreement) are some of the important aspects regulated by the Paris Agreement. The role of fatwas at the grassroots level might be more beneficial to conduct adaptation strategies, which are actions and adjustments that can prevent the risk of climate change (Dupuy & Viñuales, 2018). Looking at the 2016 MUI fatwa on forest fires, such a fatwa received a positive response from the public. The Indonesian government even acknowledged the importance of such fatwa. Even though the normative national regulation already prohibits forest fires, fatwas, which portray the moral values of society, are crucial, as stated in the 2016 fatwa on forest fires.

At the grassroots level, forest fires are a growing concern. The role of Islamic clerics within the society is substantial. This can be seen in some villages in Sumatra, where most forest fires have occurred for the past couple of years (Rochmyaningsih, 2020). The clerics in the area

have been advocating to deliver the importance of the people as *Khalifah* to protect the environment. In fact, the environmental fatwa issued by MUI has helped the government and non-governmental organizations conduct their conservation efforts (Mangunjaya & Praharawati, 2019).

Further, fatwas could feel closer to each Muslim since prominent Islamic jurists in the country issue it. Islamic teachings and fatwas are inseparable from Indonesian society. As such, it is essential to guide the lives of the people, including the action to prevent climate change (Rohmah & Alfatdi, 2022).

## Conclusion

Climate change affects all levels of humankind's life. It is an extraordinary issue that requires an extraordinary approach. Dependence on the government seems naive since climate change is affecting each individual. Thus, the involvement of an element that is inherently close to an individual, such as religion, is paramount. In this matter, Islam, one of Indonesia's religions, might contribute to the efforts to prevent climate change. Under the role of MUI, a fatwa can be issued to respond to the contemporary issue when such an issue affects the livelihood of Muslims in Indonesia. Fatwa, as an Islamic legal instrument, has a dynamic character and occupies a pivotal position, thus affecting Muslims' lives.

MUI issued a set of fatwas to respond to environmental issues. There are at least three characteristics of the climate change-related fatwas. These characteristics are directly, indirectly, and conceptually related to climate change issues. Nevertheless, MUI does not have a fatwa that directly addresses climate change, as can be seen in Egypt. Fatwa, which directly addresses climate change by MUI, is pertinent to supporting Indonesia's efforts to prevent climate change. The issuance of such a fatwa can portray the stance of MUI in facing climate change, which also influences the perception of Indonesian Muslims toward this issue. In addition, despite the absence of a direct link between fatwas and how the Indonesian government establishes their adaptation and mitigation strategy toward climate change, fatwas are a suitable medium to streamline the government's policy for society, especially Muslims. In fact, the role of *fatwa* can heavily affect adaptation strategies where Muslims in local areas could implement many adaptation strategies in their home.

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