Restoration and Conservation Based on Community Empowerment and Religious Understanding

H Herdiansyah1* and M N Rizki2

1 School of Environmental Science, Universitas Indonesia, Depok 16424, Indonesia. ORCID ID: 0000-0003-2684-3551
2 Department of Social Anthropology, Faculty of Social and Political Sciences, Depok 16424, Indonesia.

*herdis@ui.ac.id, rmochnaulri@gmail.com

Abstract. Community empowerment is one of the effective strategies in conservation efforts. However, empowerment-based conservation still leaves some problems to be solved. The most significant issues in empowerment-based conservation are sustainability and human resource issues. This study sees the problem can be solved by integrating religious aspects in empowerment-based conservation efforts. Through its teaching about the environment, religion can instill values and shape the behavior of people and people who care about the environment. For demonstrating this possibility, this study reviews the literature available in discussions on the role of religion in environmental conservation, community empowerment, and conservation efforts. From the existing literature, religion instills values, shapes behavior, and ensures its sustainability. This is possible through features in religion, such as the message of responsibility in the concept of divinity, karma and reward/sin, or other features such as the ability of institutions to spread values that are intertwined with the emotional, cognitive, and even political aspects of society.

1. Introduction
The environment has been in a bad state and is getting worse and worse. The increase in human needs and a sense of domination over other creatures cause the environmental crisis. Overexploitation of resources, creates a variety of complex problems. Deforestation, pollution, global warming, and animal extinction are examples of environmental crises due to fulfilling human needs. The environmental crisis is a condition that occurs due to a spiritual and moral crisis [1]. Low responsibility and value of environmental management is a form of low spiritual morals. In increasing religion-based conservation, it is necessary to instill a sense of responsibility and increase the value of environmental management.

The environmental crisis has worsened human life and threatened the sustainability of the environment. The need for appropriate methods to minimize the exploitation of natural resources so that the environment remains sustainable is very necessary. The approach that is quite popular in solving complex problems is community empowerment.

Community empowerment in environmental issues has succeeded in changing people's behavior to be more pro-environmental [2]. Small-scale community management has been able to change the surrounding environmental conditions. It can be said that the conservation model based on community empowerment has become one of the most effective approaches. However, the weaknesses of this kind
of conservation model usually only emerge in the long term. Conservation based on empowerment is often faced with problems related to sustainability issues. During the initial conservation phase, when mentoring and supervision are carried out closely, empowerment programs usually run optimally. However, after the community is released independently, there will be a risk of discontinuation, namely the discontinuation of conservation programs that have been planned with the community during the initial mentoring period.

Community empowerment through improving education was once a popular method, predicted to be a method that can be used to solve most problems. Nevertheless, this method is increasingly felt less efficient over time. Abdullah & Keshminder [3] explained that using conventional methods such as education alone in solving problems is considered less efficient. Combining conventional methods with religious inclusion in solving environmental problems is more efficient [4-5]. Religion is considered to play a role as an agent in promoting pro-environmental behavior and the formation of individual attitudes [6] so that including the role of religion and education can provide efficient problem-solving. Many studies highly recognize the role of religion in shaping behavior. Research related to the religious approach, namely community conservation of water resources [7] by incorporating an increase in religious values to the community. The upheld eco-pesantren concept has succeeded in increasing the ability of the community to take part in conservation efforts [8].

Responding to these problems, the author wants to find alternative ways to solve environmental problems with a sustainable community empowerment approach. One aspect that can be involved in the formulation of the alternative method is the aspect of religion. Religion and spirituality are important to note because religious belief/faith greatly influences individual behavior towards the environment [6]. Individual faith can prevent destruction and even optimize conservation [9]. Therefore, this study will attempt to elaborate and review the findings of previous studies related to religion in community empowerment and conservation efforts. However, what makes the difference in this study? The main pattern in previous research emphasizes the influence of religion and empowerment on conservation efforts separately. There are still not many studies using the discussion of religion and empowerment in a combined way. We fill this gap and contribute to future studies. Further research will include the use of religion and community empowerment in solving environmental problems. Management efforts carried out by the community are associated with the role of religious doctrine and ideology.

The subjects in this paper are religious doctrines and institutions, conservation, and community empowerment, so the specific question posed is how religious doctrines and institutions contribute to shaping conservation based on sustainable community empowerment? So later, this paper will provide insight into the role of religion and the importance of empowerment—and help formulate policymakers. When there are environmental problems in the future, it is possible to solve them with religion and empowerment.

2. Method
Data was collected and carried out with a qualitative approach using policy analysis and literature review of previous studies over the last decade, but mostly from 2018 to 2021, discussing topics related to religious doctrine and institutions, community empowerment, and conservation. The perspective used in this study is inspired by an eco-theological approach that arises from the awareness of environmental damage caused by humans. Eco-theology helps to understand the relationship between God, nature, and humans. God as the creator of the universe and humans who are representatives in the environment, are obliged to protect, and maintain nature, nature as a place for human life and—provide for human needs. In eco-theology, religion is generally seen as inviting its followers to pay more attention to the environment through conservation and efforts to maintain the balance of nature. In the concept of eco-theology, individuals want to get closer to God through an ecological perspective.
3. Results and discussion

Religion provides guidelines for its people to behave, both to humans and the environment. This behavior becomes the capital towards environmental sustainability. Currently, religion is starting to see a connection with biodiversity [10]. Some ideologies represent the diversity of biodiversity in religious stories. Even some religions show the teaching of human relations with animals or natural resources in their books. Individuals in religious communities are influenced by messages of responsibility for the environment from such doctrines and teachings. In addition, the religious community movement became popular when there was awareness of environmental damage. In short, from a study of the existing literature, religion can positively impact community empowerment in the context of conservation for three things: instilling values and ethics, forming habits, and enforcing social control. The explanation can be seen in the following table:

Table 1. The Roles of Religion in Optimalizing Empowerment-Based Conservation

| No. | Aspects                | Mechanisms                                                                 | Impacts on Empowerment                        |
|-----|------------------------|-----------------------------------------------------------------------------|-----------------------------------------------|
| 1   | Values and Ethics      | Through the teaching of pro-environmental doctrines and values by religious leaders and institutions | The formation of a community with pro-environmental values |
| 2   | Behaviors              | Through internalization that is carried out continuously, deeply rooted and intertwined with various factors such as cognitive conditions or political orientation of individuals | The formation of a community with pro-environmental behaviors |
| 3   | Social Control         | Through religious features such as the concept of omniscience God, reward/sin and karma. | Ensuring sustainability and durability through spiritual supervision, with efficient resources. |

Based on Table 1, three points can be highlighted. First, religion can play a role in instilling values and ethics regarding the environment through the teaching of religious doctrine by religious leaders and religious institutions. Some religious leaders began to turn to pro-environmental efforts. Like Pope Francis, who has declared his participation and willingness of the people to help reduce contributions to global warming. Statements or teachings of religious leaders and religious perspectives of this kind shape values and ethics towards the environment. Moreover, religious institutions are starting to instill interdependence towards sustainability, and are starting to avoid the anthropocentric concept, which places humans more important than other creatures. Just as Pope Francis tried to bring positive power and teachings to the people to be more concerned with environmental change, Sufi Hossein Nasr stated that Islam teaches its adherents to respect the environment and not treat the environment arbitrarily. According to him, pro-environmental ethics is a way of maintaining a relationship with God. The community is willing to carry out management because of the cultivation of social values. Recycling is a charitable practice in religion to get a reward. According to Shin & Preston [11], religion presents an optimistic attitude to management, increasing the environmental awareness of its members. Religious institutions give the values of protecting the environment. As mentioned by Chuvieco [12], these values can be manifested through attitudes: domination, stewardship, empathy, humility, mysticism. In short, religion can teach protecting the environment and preventing destruction.

Second, besides being able to instill values and ethics regarding the environment, religion can also shape behavior. How can religion work in such a case? The role of religion in conservation can be understood psychologically [13] because emotional conditions influence ecological decision-making [14]. The determinants of such emotional conditions are religious doctrines that can promote pro-environmental values, limit individual behavior related to environmental issues, and increase more
significant concern regarding protection through spiritual values. However, it should also be understood that although religion contributes to behavior towards the environment through the internalization of values and emotional conditions, there are other factors, such as science. What needs to be noted is that when science and religion are combined to form pro-environmental behavior, environmental problems may be solved more optimally.

Wilson [15] reinforces this result, stating that religion and science are the two most vital forces in life. Both strengths are the capital to solve environmental problems. When the two forces are combined will provide more efficient results.

Religion does not only teach about how we worship God. Along with the development of science, religion also provides education about our attitude towards the environment. Increased knowledge of religious communities is emphasized to increase the effectiveness of pro-environmental behavior. Improving the quality of education that prioritizes the quality of teachers is needed to increase the willingness to conserve. Setting an example through religious leaders who have taught, setting an example can encourage people to care more about the environment. Teachings that religious leaders exemplify are one of the promotional efforts in increasing environmental awareness [3]

Religious movements in the environment, such as the Greening of Christianity [16], have proven successful in spreading pro-environmental values for the people. These values will later interact with other aspects such as emotional conditions, knowledge, and political orientation so that, in the end, they can shape behavior. The process of forming this behavior will be helpful for empowerment. Pro-environment ethics internalized through the role of religion will continue to grow and become a culture towards sustainability. Sponsel [17] states that religious organizations act as morally persuasive and motivators in acting. Religious organizations can invite their people to carry out teachings that follow the environment. Also, increasing knowledge about conservation efforts, increasing personal knowledge will further affect their willingness to carry out conservation [18]. Religious denominations can generate beliefs and practice commitments in conservation [19]. To form pro-environmental behavior is based on individual personal beliefs about the environment and needs encouragement from religion, through a psychological construction that considers God as the controller of the universe, giving limits to individuals to behave. A more pro-environmental attitude-will bring rewards. The teachings of every religion to seek rewards and leave sins to encourage individuals to have a positive attitude towards the environment.

Religion is believed to be an agent in changing attitudes, one of which is a pro-environmental attitude. Religious teachings can increase people's awareness about the environment, teach conservation efforts. Awareness of changing pro-environmental attitudes is not obtained instantly. The change in attitude is a periodic result that takes no short time. The formation of a pro-environmental attitude is obtained from experience [20]. The pro-environmental attitude is also formed from the conditions felt by the community. There is a shift in attitude change based on impact. Constant religious teachings can shape individual attitudes to be more consistent. Permanent religious goals are better able to increase conservation willingness because things that have been embedded in people's perceptions encourage more strongly to carry out conservation.

Now the question is, how can religion guarantee that this behavior will be formed continuously? This is the explanation of the third point in table 1. Religion is a source of external control [21], control that comes from God. Religion guarantees sustainable behavior through the concept of an omniscient divinity, the concept of karma or reward and sin. Religion has a role in monitoring behavior and sanctioning violations [22]. Incorporating religion in behavior towards the environment, reducing the use of supervisory agents. Religion teaches that every activity carried out by humans is fully known by God. Through religion, humans will directly be careful of their behavior towards nature. They will protect nature because God knows everything and will reward his actions. Supernatural monitoring is more efficient than more expensive government monitoring. The all-knowing nature of God is used as a regulator of behavior. When forest management is only done traditionally, the forestry department needs additional costs to monitor [23].
Through the teachings of karma, humans will be more careful in their behavior towards the environment. In the context of empowerment, there is no need for parties in charge of continuously monitoring and supervising. Religious institutions have carried controlling behavior by cultivating values and conceptions of God, karma, and sin/reward. The role of religion as a transitional agent for such sustainability can be seen in many ways, for example, in the energy consumption behavior studied by Katz-Gerro et al. [24] or to protect animals such as the leopard studied by Quammen et al. [10]. Thus, the belief in responsibility through these concepts forms attitudes towards the environment [11].

Risk perception of individual attitudes is a mediator between Religion and pro-environmental behavior [25]. The risks borne by individuals due to their behavior have opened awareness of the importance of protecting the environment by-increased knowledge both about environmental conditions, environmental impacts, and environmental management practices have increased pro-environmental behavior. Religious teachings have morals that are believed to teach commendable behavior. Indoctrinating each of his followers, through increasing belief, to follow religious teachings also stay away from things considered destructive. Religion has a social network which is an additional factor in shaping pro-environmental behavior. Broader and stronger social network. Hassan [26] stated that exemplary encouragement and education influence individuals to adopt pro-environmental behavior.

This study shows that community can get the right encouragement and education from religious teachings and religious capacities. The example of religious leaders encourages people to follow them because they are a guide. However, there is still a limitation: how can empowerment-based conservation that includes the role of religion work in a secular, or even agnostic and atheist individuals and community? This is indeed a big challenge, but actually, there is a chance to succeed. This opportunity has been proven by Zagonari [27] through a single data set and a single analytical framework that finds religious and secular environmental ethics can be complementary to the realization of sustainability at the global and local levels. In addition, the influence of religion is also not limited to religious communities because religious institutions function in environmental management, namely in carrying out public campaigns, materialization, and dissemination of values [28]. They are providing knowledge related to environmental conditions, increasing public knowledge, and awareness. This increase encourages them to expand their environmental protection efforts. So that it is not uncommon for religious institutions to be believed to have the ability to diversify conservation efforts into various aspects, conservation efforts that spread to various fields provide more benefits. Religion as a transitional agent in conservative behavior is unquestionable. Moreover, with the support of science, it will provide a higher success rate in conservation. Religion has the external ability to regulate individual behavior and keep their behavior consistent without the need for supervision. They are prioritizing responsibility in protecting the environment for the benefit of all people.

4. Conclusion
Individuals in religious communities are influenced by messages of environmental responsibility that arise from doctrine and are internalized by institutions. In addition, the role of religion in environmental management becomes stronger when individuals are faced with various environmental problems and pressures. The increasing environmental pressure requires belief in God's moralization. This belief becomes a strength to face environmental pressures. This pressure also encourages figures in religious institutions such as Pope Francis to promote environmental values in their teachings.

The message of responsibility for the environment in religion institutions then interacts with individuals’ emotional condition, cognition and political orientation in shaping pro-environmental attitudes and behaviors. Attitudes and behaviors formed through the role of religion are more durable because of the concepts of divinity, karma, and sin/reward in religion. This is what allows religion to be integrated into community empowerment for conservation. Through the roles mentioned above, religious doctrines and institutions can make pro-environmental attitudes and behaviors continuous.

In addition, the success of conservation is primarily determined by human resources, both in quality and quantity. More participants who are willing to carry out conservation have a positive effect on conservation outcomes. Lack of human resources can lead to sub-optimal conservation results. Religion,
through its community and people, can provide these human resource needs. Thus, it can be concluded that the attraction of environmental change through solid religious values can be a capital for empowerment, with potentially satisfying results. In closing, we provide several recommendations from the results of this study: (1) It is necessary to dig deeper into values, ethics, and doctrines in various pro-environmental religions; (2) it is necessary to collect and organize data on potential religious doctrines related to the environment for conservation; (3) stakeholders need to start attracting religious leaders and institutions as partners in empowerment-based conservation projects.

Acknowledgements
This research was funded by Kementerian Riset dan Teknologi/Badan Riset dan inovasi nasional, grant number 8/E1/KP.PTNBH/2021 and grant number NKB 224/UN2.RST/HKP.05.00/2021 Research and Development (Risbang), Universitas Indonesia.

References
[1] Gottlieb R S 2019 Morality and the Environmental Crisis (New York: Cambridge University Press)
[2] Wali A, D Alvira, P S Tallman, A. Ravikumar and M O Macedo 2017 A new approach to conservation: using community empowerment for sustainable well-being. Ecology and Society 22(4):6
[3] Abdullah M S and Keshminder J S 2020 Religion and pro-environmental behaviour: A comparative analysis towards environmental protection. International Journal of Environment and Sustainable Development, 19(2) 174–194
[4] Jenkins W and Chapple C K 2011 Annual Review of Environment and Resources 2011 36:1 441-463
[5] Mcleod E and Palmer M 2015 Why Conservation Needs Religion, Coastal Management 43:3, 238-252
[6] Agudelo An C.A.R and Cortes-Gómez, 2021 Sustainable behaviors, prosocial behaviors, and religiosity in Colombia. A first empirical assessment. Environmental Challenges (4)
[7] Aboul-Enein B H 2018 “The earth is your mosque”: narrative perspectives of environmental health and education in the Holy Quran Journal of Environmental Studies and Sciences 8(1), 22–31. https://doi.org/10.1007/s13412-017-0444-7
[8] Bahri S (2018) Pesantren And The Development Of Living Environment: The Study Concept Of Eco-Pesantren In Pondok Pesantren An-Nur Ha Rambigundam Jember. Int. Rev. Adm. Sci. 5(10), 43–54
[9] Mohamad Z F, Idris N and Mamat Z 2012 Role of religious communities in enhancing transition experiments: A localised strategy for sustainable solid waste management in Malaysia. Sustainability Science, 7(2), 237–251
[10] Quammen B G, Li J, Yin H, Lu Z, Colorado A, Ryskulova N, Loginova I 2016 Religion and Cultural Impacts on Snow Leopard Conservation. Snow Leopards: Biodiversity of the World: Conservation from Genes to Landscapes 197–217
[11] Shin F, and Preston J L 2019 Green as the Gospel: The Power of Stewardship Messages to Improve Climate Change Attitudes. Psychology of Religion and Spirituality
[12] Chuvieco E 2012 Introduction Water Policy, 14(SUPPL. 1), 9–20.
[13] Preston J L, and Baimel A 2021 Towards a psychology of religion and the environment. Current Opinion in Psychology 40 145–149
[14] Purzycki B G and McNamara R A 2016 An Ecological Theory of Gods’ Minds BT - Advances in Religion, Cognitive Science, and Experimental Philosophy. In Advances in Religion, Cognitive Science, and Experimental Philosophy
[15] Wilson E O 2019 The Creation: An Appeal to Save Life on Earth - Edward O. Wilson - Google Books. Retrieved August 29, 2021, from
[16] Konisky D M 2018 The greening of Christianity? A study of environmental attitudes over time. Environmental Politics 27(2) 267–291
[17] Sponsel L E 2020 Introduction to “Religious environmentalism activism in asia: Case studies in spiritual ecology Religions 11(2)
[18] Morrison M, Duncan R, and Parton K 2015 Religion Does Matter for Climate Change Attitudes and Behavior PLOS ONE 10(8) e0134868
[19] Veldman, R. G. (2019). The gospel of climate skepticism: Why evangelical Christians oppose action on climate change. Univ of California Press.
[20] Carlisle J E and Clark A K 2018 Green for god: Religion and environmentalism by cohort and time. Environment and Behavior 50(2) 213–241
[21] Eom K, Saad C S, and Kim H S 2021 Religiosity Moderates the Link Between Environmental Beliefs and Pro-Environmental Support: The Role of Belief in a Controlling God. Personality and Social Psychology Bulletin 47(6) 891–905
[22] Hartberg Y, Cox M, and Villamayor-Tomas S 2016 Supernatural monitoring and sanctioning in community-based resource management. Religion, Brain and Behavior 6(2) 95–111
[23] Gupta N, Kanagavel A, Dandekar P, Dahanukar N, Sivakumar K, Mathur V B and Raghavan R 2016 God’s fishes: Religion, culture and freshwater fish conservation in India. Oryx 50(2), 244–249
[24] Katz-Gerro T, Greenspan I, Handy F, and Vered Y 2020 Environmental behavior in three countries: The role of intergenerational transmission and domains of socialization. Journal of Environmental Psychology 71 101343
[25] Zeng S, Wu L, and Liu T 2020 Religious Identity and Public Pro-Environmental Behavior in China: The Mediating Role of Environmental Risk Perception. Religions 2020, 11(4), 165
[26] Hassan A 2016 Humanomics Article information: Humanomics, 32(1), 80–94.
[27] Zagonari, F 2021 Religious and secular ethics offer complementary strategies to achieve environmental sustainability. Humanit Soc Sci Commun 8 124
[28] Koehrsen, J. (2018). Religious agency in sustainability transitions: Between experimentation, upscaling, and regime support. Environmental innovation and societal transitions, 27, 4-15.