

THREE SUFI COMMUNITIES GUARDING THE EARTH

A Case Study of Mitigation and Adaptation to Climate Change in Indonesia

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Abstract

Prasenjet Duara (2015) accuses divine religions as the cause of the environmental crisis and natural disasters. Duara's thesis was counterattacked by scientists and religionists who stated that religion has the spirit and teachings of careness for the environment. Nevertheless, the arguments they built are still theological, normative and theoretical. This study is an antithesis to the Duara's statement and at the same time presents evidence based on the primary data that occurred in three Sufi communities. The focus of this study analyzes Sufi activism in Indonesia in safeguarding the earth, as a form of substantial religious responses to the environmental crisis due to climate change. Through the principles and mechanism of qualitative research methods, researchers sought to analyze mitigation and adaptation actions to climate change carried out by the Majelis Zikir Kraton Pekalongan, Jamaah Aoulia Panggang and Pesan Trend Ilmu Giri. The data are obtained through interviews, observation and documentation and they are analyzed interactively. The results of the study revealed that climate change is believed by the Sufis as God's authority due to human destructive behavior. For Sufis, overcoming climate change must begin with a change in the perspective of human relations, nature and God. In the case of three Sufi communities, religion is not just a doctrine of the relationship between God and humans, but also operational guidance on how to synergize with nature. Through a substantial religious spirit, the Sufis guard the earth

through the re-actualization of the narratives of takhalli, tahalli and tajalli, as ecological repentance, ecological movements, and ecological campaigns in mitigating and adapting to climate change.

[Prasnjat Duara (2015) menuduh agama-agama samawi sebagai penyebab terjadinya krisis lingkungan dan bencana alam. Tesis Duara mendapat serangan balik dari ilmuan dan agamawan yang menyatakan bahwa agama memiliki spirit dan ajaran kepedulian terhadap lingkungan. Hanya saja argumen yang mereka bangun masih bersifat teologis, normatif dan teoritis. Kajian ini merupakan antitesa terhadap pernyataan Duara, dan sekaligus menyajikan bukti berdasarkan data-data lapangan yang terjadi pada tiga komunitas sufi. Fokus kajian ini menganalisis aktivisme kaum sufi di Indonesia dalam menjaga bumi, sebagai bentuk respons kaum beragama substantial terhadap krisis lingkungan akibat perubahan iklim. Melalui prinsip dan mekanisme metode penelitian kualitatif, peneliti berusaha menganalisis tindakan mitigasi dan adaptasi terhadap perubahan iklim yang dilakukan oleh Majelis Zikir Kraton Pekalongan, Jamaah Aoulia Panggang dan Pesan Trend Ilmu Giri Yogyakarta. Data-data diperoleh melalui wawancara, observasi dan dokumentasi dan dianalisis secara interaktif. Hasil kajian mengungkap bahwa perubahan iklim diyakini oleh kaum sufi sebagai otoritas Tuhan yang disebabkan perilaku destruktif manusia. Bagi kaum sufi, mengatasi perubahan iklim harus dimulai dari perubahan cara pandang relasi manusia, alam dan Tuhan. Dalam kasus di tiga komunitas sufi, agama tidak sekedar menjadi doktrin tentang relasi Tuhan dan manusia, melainkan juga petunjuk operasional bagaimana bersinergi dengan alam. Melalui spirit agama yang substantial, kaum sufi menjaga bumi melalui reaktualisasi narasi takhalli, tahalli dan tajalli, sebagai pertaubatan ekologi, gerakan ekologi, serta kampanye ekologi dalam perilaku mitigasi dan adaptasi terhadap perubahan iklim.]

Keywords: climate change, sufism, mitigation, adaptation, environmental crisis and disaster.

A. Introduction

Prasnjat Duara in his research entitled *The Crisis of Global Modernity* revived the accusation that divine religion was the cause of environmental

damage.¹ White had had a similar view that environmental crisis was caused by worldview of monotheistic religion that taught that nature was created for humans.² This anthropocentric view was followed by Toynbee,³ Gunn,⁴ Shepard and McKinley,⁵ Moncrief,⁶ Miller,⁷ Toynbee and Ikeda,⁸ and Thomas.⁹ They interpreted that on the basis of religious normativity, humans have full authority over nature and the earth. This exploitative religious narrative of nature is an argument that religion is the main cause of climate change which results in an environmental crisis at the global level.

This research-based study argues against the thesis built by Duara. The results of the research as an antithesis to Duara's view, as well as the response to the White's narrative, actually fulfilled the academic space for the study of religious relations and the environment.

¹ Prasenjit Duara, *The Crisis of Global Modernity: Asian Traditions And A Sustainable Future* (Cambridge: Cambridge University Press, 2015); George Lawson, "The Crisis of Global Modernity: Asian Traditions and a Sustainable Future. By Prasenjit Duara", *Journal of Global History*, vol. 13, no. 1 (Cambridge University Press, 2018), pp. 150–1; Micah Muscolino, "The Crisis of Global Modernity: Asian Traditions and a Sustainable Future. By Prasenjit Duara," *Environmental History*, vol. 22, no. 2 (2017), pp. 374–6.

² Lynn White, "The Historical Roots of Our Ecologic Crisis", *Science*, vol. 155, no. 3767 (1967), pp. 1203–7.

³ Arnold Toynbee, *Mankind and Mother Earth: A Narrative History of the World* (Oxford: Oxford University Press, 1976); Arnold Toynbee, "The Religious Background of the Present Environmental Crisis: a Viewpoint," *International Journal of Environmental Studies*, vol. 3, no. 1-4, (1972), pp. 141-146.

⁴ Alastair S. Gunn, "Rethinking Communities: Environmental Ethics in an Urbanized World", *Environmental Ethics*, vol. 20, no. 4, (1998), pp. 341-360.

⁵ Daniel McKinley and Paul Shepard (eds.), *The Subversive Science: Essays Toward an Ecology of Man* (Boston: Houghton Mifflin, 1969).

⁶ Lewis W. Moncrief, "The Cultural Basis for Our Environmental Crisis", *Science*, vol. 170, no. 3957 (1970), pp. 508–12.

⁷ Henry Miller, "Environmental Complexity and Financial Reports", *The Accounting Review*, vol. 47, no. 1 (1972), pp. 31–7.

⁸ Arnold Toynbee and Daisaku Ikeda, *Choose Life: A Dialogue* (Oxford: Oxford University Press, 1989).

⁹ Keith Thomas, *Man and the Natural World: A History of the Modern Sensibility* (New York: Pantheon Books, 1983).

Bratton,¹⁰ Baidhawiy,¹¹ Qodar,¹² Rokib,¹³ Suwito,¹⁴ and Rice,¹⁵ concluded that religion is the spirit and basis of protection against environmental damage. Unfortunately, the arguments built both by Duara and White on the one hand and Bratton on the other hand have theological and theoretical nuances.¹⁶ In contrast to the studies above, this study presents real cases on the ground conducted by three Sufi communities in Indonesia. Environmental conservation activism organized by Sufis in Indonesia reaffirms the substance and spirituality of religion as a force in maintaining environmental sustainability. In these three Sufi communities, paradigmatic, ideological, doctrinal, measurable, systematic and sustainable work programs are revealed.

In this context, the ecological crisis due to climate change has penetrated the Sufic space of the *tarekat*. The world of Sufism which has been synonymous with issues of spirituality and mind¹⁷ in individual worship practices as narrated by Howell, they have now undergone a progressive transformation in responding to contemporary problems.

¹⁰ Susan Power Bratton, "Eco-Dimensionality as a Religious Foundation for Sustainability", *Sustainability*, vol. 10, no. 4 (2018), pp. 1–14.

¹¹ Zakiyuddin Baidhawiy, "The Role of Faith-Based Organization in Coping with Disaster Management and Mitigation: Muhammadiyah's Experience", *Journal of Indonesian Islam*, vol. 9, no. 2 (2015), pp. 167–194.

¹² Lely Qodar, *Manajemen Kepemimpinan Lingkungan: Kajian Eko Sufisme Pesantren* (Yogyakarta: Penerbit Ilmu Giri, 2014).

¹³ Mohammad Rokib, "The Significant Role of Religious Group's Response to Natural Disaster in Indonesia: the Case of Santri Tanggap Bencana (Santana)", *Indonesian Journal of Islam and Muslim Societies*, vol. 2, no. 1 (2012), pp. 53–77.

¹⁴ Suwito, "Eko-Sufisme Studi tentang Usaha Pelestarian Lingkungan pada Jama'ah Mujahadah Ilmu Giri dan Jama'ah Aoliya'Jogjakarta", PhD. Dissertation (Jakarta: Syarif Hidayatullah State Islamic University, 2010).

¹⁵ Gillian Rice, "Pro-environmental Behavior in Egypt: Is there a Role for Islamic Environmental Ethics?", *Journal of Business Ethics*, vol. 65, no. 4 (2006), pp. 373–90.

¹⁶ Conrad L. Kanagy and Fern K. Willits, "A 'Greening' of Religion? Some evidence from a Pennsylvania sample", *Social Science Quarterly*, vol. 74, no. 3 (1993), p. 674; S. Nomanul Haq, "Islam and Ecology: Toward Retrieval and Reconstruction", *Daedalus*, vol. 130, no. 4 (2001), p. 145.

¹⁷ Julia Day Howell, "Sufism and the Indonesian Islamic Revival", *The Journal of Asian Studies*, vol. 60, no. 3 (2001), p. 701.

As citizens of the world, Sufis cannot escape the effects of climate change. Climate change becomes a collective, complex, dilemmatic and multidimensional challenge. Addressing climate change requires multi-stakeholder, multidisciplinary and multiperspective cooperation.¹⁸ Sufis are one of the important forces to overcome this global problem because their religious beliefs and ecological behavior are in harmony with the harmony of nature.¹⁹ This study shows that Sufism is a framework for everyday activism in solving contemporary people's problems.²⁰ The path taken by the Sufis in the context of economic, social, political, state and national behavior can be an inspiration to overcome climate change.²¹

Sufi behavior that relies on the spirit of the doctrine of *zuhud, wara', fakir, fana* and *insan kamil*, has now found its momentum as a movement to resist explorative behavior on natural resources. Sufis who were once imagined have isolated themselves from the roar of the world,²² now act ecologically based on religious values and local culture and become alternative ways to organize the planet earth.²³ Habib Muhammad through a program of organic cultivation and agriculture by the Majelis Zikir Kraton; forest of Pesan Trend Ilmu Giri; as well as the management of *tandon* (reservoir) by the Jamaah Aolia Panggang of Yogyakarta. Sufi

¹⁸ Masnellyarti Hilman (ed.), *Indonesia Second National Communication Under The United Nations Framework Convention on Climate Change: Climate Change Protection for Present and Future Generation* (Jakarta: Ministry of Environment, Republic of Indonesia, 2010).

¹⁹ Edward P. Echlin, "Climate Change Theology", *New Blackfriars*, vol. 89, no. 1024 (2008), pp. 715–29.

²⁰ Julia Howell, "Sufism on the Silver Screen: Indonesian Innovations in Islamic Televangelism", *Journal of Indonesian Islam*, vol. 2, no. 2 (2008), p. 237.

²¹ See "Deklarasi Multaqos Shufi", *Majalah Nabdlatul Ulama: Aula*, vol. 8 (2011), p. 15.

²² The study of the development of Sufism thought since the 9th century until the 19th century can be traced in the work of Abdul Kadir Riyadi, *Arkeologi tasawuf; Melacak Jejak Pemikiran Tasawuf dari Al Mubasibi hingga Tasawuf Nusantara*, ed. by Ahmad Baiquni (Bandung: Mizan, 2016).

²³ Amat Zuhri, "Mbah Munawar, Tasawuf dan Kelestarian Lingkungan", *Jurnal Penelitian*, vol. 7, no. 2 (2010), pp. 1–10; Lisa Wersal, "Islam and Environmental Ethics: Tradition Responds to Contemporary Challenges", *Zygon®*, vol. 30, no. 3 (1995), pp. 451–9.

behavior that integrates intellectual, spiritual and emotional aspects,²⁴ not only surpassed the construction of modern sufism which was rolled out by Hamka (1908-1981),²⁵ it also becomes an antithetical movement towards ‘capitalistic’ behavior and lifestyle which can be a trigger for damage and natural disasters.

This study aims to analyze Sufi activism in safeguarding the earth through mitigation and adaptation actions to climate change organized by Sufis in *Majlis Zikir Kraton*, *Jamaah Aolia Panggang* and *Pesan Trend Ilmu Giri Yogyakarta*. Methodologically, this study is included in the tradition of a case study that relies on qualitative data, whether in the form of speech, words or writing related to mitigation and adaptation to climate change carried out by Sufis at the research site. The data were obtained through interviews, observation and documentation, which were analyzed using the interactive analysis model of Miles and Huberman.²⁶ In the case of *Majlis Zikir Kraton*, researchers were involved in partnership with the environmental conservation program in Pekalongan city. Through this analysis model, the response, understanding and behavior of the Sufis in facing global climate change can be revealed especially related to mitigation and adaptation actions.

B. Three Sufi Communities

Majlis Zikir Kraton. *Majlis Zikir Kraton* Pekalongan was founded in 1992. This assembly has its own uniqueness from various aspects. The Assembly is not only engaged in understanding and religious behavior, but also has social teachings, environmental conservation, multicultural arts and music. Based in *Kraton Village*, North Pekalongan, the assembly has an open membership. Habib Muhammad Dardanylla Shahab, the figure behind the birth of the dhikr assembly. Habib Muhammad Dardanylla Shahab bin Abdurrahman bin Gasim bin Husaein bin Shahab was born on October 13, 1966. Through a combination of religious and public

²⁴ Hadi S. Alikodra, *Konservasi Sumberdaya Alam dan Lingkungan: Pendekatan Ecosophy Bagi Penyelamatan Bumi* (Yogyakarta: UGM Press, 2012).

²⁵ Khairudin Aljunied, “Reorienting Sufism: Hamka and Islamic Mysticism in the Malay World”, *Indonesia*, vol. 101 (2016), pp. 67–84.

²⁶ Matthew B. Miles and A. Michael Huberman, *Qualitative Data Analysis: An Expanded Sourcebook* (Thousand Oaks, CA: Sage, 1994).

education, the figure of religion and scholars was born. This sufistic world, traditional healing, and economy characterizes Habib Muh's style of thinking and behaving in acting in society. The Sufi community in the assembly emphasizes the four aspects.²⁷ In the words of Habib Muh, the four aspects he pursued were intense *dhiker*, moral guidance, multicultural Sufi arts and environmental conservation.²⁸ The results of the study of Laila strengthen the foundation of the *dhiker* assembly as the center of remembrance, which relies on the sentence of *tauhid* (oneness of Allah) and ends in prosperity and mercy for the universe. For Habib Muh, the universe is a manifestation of the existence of Allah. Human relations, nature and God must be built in the framework of strengthening the existence of God. Only through Sufism, humans will be able to understand the meaning of life and its function in the context of dialogue with the environment.²⁹ This understanding is translated into daily practices, in the form of remembrance, prayer and social activities, agriculture and environmental conservation.

Pesan Trend Ilmu Giri or also called Ilmu Giri. Sufi Community of *Ilmu Giri* are students in the *Pesan Trend Ilmu Giri*. The congregation of *Ilmu Giri* was founded by KHM. Nashruddin Anshory Ch, on Wednesday the 17th of Ramadan 1424 H/November 12, 2003. This pesantren occupies a land area of 7 hectares. Ilmu Giri students are Selopamioro community especially Nogosari village. Kiai Nas's intellectualism was obtained from educational process in Pesantren Al-Muayyad Solo, Pesantren Al-Munawir Krapyak in Yogyakarta, Pesantren Tebuireng, DDI Pinrang South Sulawesi, Apru Cihadu Pandeglang.³⁰ Kiai Nas wrote since he was 17 years old. His works contained social criticism towards the New Order government. The Ilmu Giri as a vehicle for getting closer to God and is managed by cultural approaches and environmental conservation. Ilmu Giri is the anchor for fulfilling the needs of the students' lives and also the planting of Sufism values. Through Sufism, Kiai Nas brings together

²⁷ HMD Shahab, interview (24 May 2017).

²⁸ Maghfur Ahmad and et al, *Laporan Kinerja Pemberdayaan Masyarakat, 2010-2015* (Pekalongan: P3M IAIN Pekalongan, 2015).

²⁹ Nur Laila, "Ekosufisme Majelis Zikir Kraton Habib Muhammad Dardanylla Shahab Pekalongan", *Religia*, vol. 21, no. 1 (2018), pp. 67-77.

³⁰ Qodar, *Manajemen Kepemimpinan Lingkungan*, p. 68.

godly, religious, artsy teachings and an integrative environment.

Jamaah Aolia Panggang, Sufi Community of Aolia Panggang Congregation, or also called Majelis Dzikir Manaqib Masjid Aolia Panggang was founded in 1982. The founder of this assembly is KHR. Ibn Hajar Sholeh Prenolo, or famously called as Mbah Benu. Kiai born in Pekalongan, December 28, 1948 has a commitment to the quality of the environment. Mbah Benu realized that Panggang village was a barren area. Located in Giriharjo Village, the Sufi Community of Aolia Panggang is at an altitude of 1,400 m above sea level. Since long ago this area was prone to drought. The availability of water is a serious problem, especially in the dry season. The assembly of Aolia Panggang has a routine practice in the form of *manaqib dhiker*. In that the command of Mbah Benu, worshipers and Sufis have a tradition of reading *manaqib* of Syaikh Abdul Qadir al-Jailani. This congregation reads is the book of *Al-Nur al-Burbani fi Tarjamati al-Lujjaini al-Dani* written by KH. Muslih ibn Abd al-Rahman ibn Qasid al-Haq Mranggan (al-Maraqi), Demak, Central Java. In this ritual, six short letters are read which are al-Fatihah, an-Nas, al-Falaq, al-Ikhlās, al-Qadr and al-Insyirah. Each letter is read seven times. According to Mbah Benu, religion is not enough to mahdah worship. Maintaining environmental sustainability becomes an important part of religious doctrines.³¹ On that basis, the issue of religion does not always dwell on spiritual matters. The application of faith in God must also be manifested in concrete actions, such as loving nature, caring for and protecting the earth.

C. Sufism, Mitigation and Adaptation

Sufis have a concern for the sustainability of the earth and its inhabitants. Sufi's responses to the problems of disasters and environmental crises are part of the dynamics of sufism in answering the problems of the people. Sufism is no longer interpreted as a behavior of individual spirituality but as a reflection of current problems.³² Sufis have

³¹ *Ibid.*, p. 75.

³² Cheikh Anta Babou, "Globalizing African Islam from Below: West African Sufi Masters in the United States", in *Global Africa: Into the Twenty-First Century*, ed. by Dorothy L. Hodgson and Judith A. Byfield (California: University of California Press, 2017), pp. 356–365; Alexander Wain, "Hamka and Islam: Cosmopolitan Reform in

a responsibility to respond to environmental problems such as climate change, water crisis, food scarcity and other ecological problems.³³ In the context of the environmental crisis and climate change, Sufis declare their commitment to prevent environmental destruction.

“To overcome the environmental crisis and extreme climate change, Sufis have reiterated the need for a *zuhud* attitude, given that the carrying capacity of nature is almost no longer able to meet the consumption needs of modern society which is increasingly greedy, resulting in increasingly environmental degradation and humanitarian crises.”³⁴

Sufi declarations related to climate change signal the Islamic scholars' commitments to sustainable development and at the same time as a form of saving the earth. Sufi steps related to climate change have become a “new era” amidst the notion that esoterics often isolate themselves as humanitarian issues. This positive response from the Sufis surpassed the *Indonesian Climate Change Trust Fund (ICCTF)* Team, which four years later (2015) only formulated three faculties in response to climate change, including mitigation, energy and adaptation.³⁵

The climate change discourse itself is a debated issue among

the Malay World by Khairudin Aljunied (review)”, *Journal of the Malaysian Branch of the Royal Asiatic Society*, vol. 92, no. 1 (2019), pp. 129–32; Khairudin Aljunied, “Restoring Sufism in the Modern Age”, in *Hamka and Islam: Cosmopolitan Reform in the Malay World* (Ithaca: Cornell University Press, 2018); Umar Faruq Thohir, “Tasawuf Sebagai Solusi Bagi Problematika Kemodernan: Studi Pemikiran Tasawuf M. Amin Syukur”, *Jurnal Theologia*, vol. 24, no. 2 (2013), pp. 43–68; Hülya Küçük, “A Brief History of Western Sufism”, *Asian Journal of Social Science*, vol. 36, no. 2 (2008), pp. 292–320; Asfa Widiyanto, “Spirituality Amidst the Uproar of Modernity: the Ritual of Dhikr and its Meanings among Members of Naqshbandi Sufi Order in Western Europe”, *Al-Jami'ah: Journal of Islamic Studies*, vol. 44, no. 2 (2006), pp. 251–74.

³³ Aminul Islam Akanda, “Rethinking Crop Diversification Under Changing Climate, Hydrology and Food Habit in Bangladesh”, *Journal of Agriculture and Environment for International Development (JAEID)*, vol. 104, no. 1/2 (2010), pp. 3–23.

³⁴ “Deklarasi Multaqos Shufi”.

³⁵ *Laporan Akhir Tahun 2015 – ICCTF* (Jakarta: Indonesia Climate Change Trust Fund, 2015).

scientists,³⁶ such as the study controversy of *Climate Change Reconsidered*.³⁷ There are two camps opposite. The *Intergovernmental Panel on Climate Change* (IPCC) group recognizes that the global climate has undergone continuous shifts, changes and dynamics. The IPCC believes that climate change is triggered by a variety of exploitative activities of the inhabitants of the blue planet, humans.³⁸ On the other hand, the *Nongovernmental International Panel on Climate Change* (NIPCC) scientists concluded that climate change caused by human behavior is only a myth, not due to human activities and does not need to be controlled because it is only a natural phenomenon.³⁹ The NIPCC believes that climate change is solely a sun and earth phenomenon. Despite the debate, the world is currently experiencing an environmental crisis is a fact. Global warming and climate change are not just myths.

The theoretical argument about the Sufi response to climate change can be traced to sufism thought and movement or the Sufi order in the west, a branch of the Sufism institution, initiated by Hazrat Inayat Khan.⁴⁰ They believe that there is interconnection in the ecosystem. Everything is interrelated and interdependent. Like the law of causality, every organism, population, community will live and survive depending on the organism, population and other merits. This principle also applies in cosmology, both at the macro and micro levels. Climate change is inseparable from this ecosystem system.

In a sociological perspective, Sufism is interpreted as an ethical

³⁶ Laurence I. Gould, "Systematic and Logical Problems in Global Warming Science", *Energy & Environment*, vol. 25, nos. 6–7 (2014), pp. 1205–18.

³⁷ Craig Idso and S. Fred Singer, *Climate Change Reconsidered: 2009 Report of the Nongovernmental Panel on Climate Change (NIPCC)* (Chicago: The Heartland Institute, 2009); Craig D. Idso, "S. Fred Singer and the Nongovernmental International Panel on Climate Change", *Energy & Environment*, vol. 25, nos. 6–7 (2014), pp. 1137–48.

³⁸ Rani Moediarta and Peter Stalker, *Sisi Lain Perubahan Iklim: Mengapa Indonesia Harus Beradaptasi Untuk Melindungi Rakyat Miskinnnya* (Jakarta: UNDP Indonesia, 2007), p. 3.

³⁹ Hira Jhamtani, "Perubahan Iklim dan Industrialisasi Ilmu", *Wacana: Jurnal Ilmu Sosial Transformatif*, vol. 27, no. 1 (2012), pp. 109–15; Martin Hertzberg, "Climate Change Reconsidered II—Physical Science", *Energy & Environment*, vol. 26, no. 3 (2015), pp. 547–53.

⁴⁰ Küçük, "A Brief History of Western Sufism".

system; art/aesthetic system; and attributes. Sufism emphasizes the esoteric, ethical, and aesthetic aspects between humans and God and between humans and their ecosystems.⁴¹ In the Sufism view, every creature is blessed. Stones, trees, mountains, plants, animals, even rice and dishes are also glorified. The spirit of sufism, which promotes humility, simplicity, emphasizes harmonious relations with nature, can reduce the rate of climate change, and ensure sustainable development.

The spirit of the teachings and behavior of Sufis can reduce the rate of climate change. Climate change causes a variety of extreme impacts, such as drought, fire, food insecurity, flooding, and uncertain weather.⁴² Weather anomalies are no longer a myth. Rainfall in certain areas and at the same time drought in other places is easy to find. Thus, climate change has a broad impact on the environment and people's lives. Reduced sources of water, drought, agricultural failure, food security, infectious diseases,⁴³ biodiversity and regional sustainability are assets that are directly or indirectly affected. In these situations, Sufis respond to the environmental crisis through mitigation and adaptation activities.

D. Contributions of Sufis to the Prevention of Climate Change

Sufism teaches doctrine and practices certain rituals. This esoteric and substantial religious group puts forward the spirituality side. Sufi rituals are intertwined with the mechanism of the concept of *takballi* (emptying), *taballi* (content) and *tajalli* (manifestation).⁴⁴ These three

⁴¹ Akhmad Luthfi Aziz, "Kiai Shaleh Darat's Moderate Sufism: Dialectic of Submission, Sincerity and World Affairs in Haḏa Al-Kitab Matnu Al-Ḥikam", *Jurnal Penelitian*, vol. 16, no. 1 (2019), pp. 91–104; Luthfi Maulana, "Theology of Humanity in the Sufism Community of the Sabbaqal Mufarridiyah Group in Pekalongan Indonesia", *Jurnal Penelitian*, vol. 16, no. 1 (2019), pp. 25–36.

⁴² Hari Kusnanto, *Adaptasi terhadap Perubahan Iklim* (Yogyakarta: BPFU UGM, 2011), p. 6; Arie S. Issar and Eilon Adar, "Progressive development of water resources in the Middle East for sustainable water supply in a period of climate change", *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, vol. 368, no. 1931 (2010), pp. 5339–50.

⁴³ Richard S.J. Tol, Kristie L. Ebi, and Gary W. Yohe, "Infectious Disease, Development, and Climate Change: A Scenario Analysis", *Environment and Development Economics*, vol. 12, no. 5 (2007), pp. 687–706.

⁴⁴ Muhammad Abū Hamid Al-Ghazālī, *Ihya' Ulum al-Din* (Cairo: Mawwqī wa Zarah al-awqaf.), p. 296.

aspects were also developed and practiced by Sufis at the Majelis Zikir Kraton, Jamaah Aoulia Panggang and Pesan Trend Ilmu Giri.

Climate change results in disasters and environmental crises. In responding to this ecological crisis, the Sufis guard the earth by mitigating and adapting to climate change. The mitigation carried out by the Sufis begins with the construction of concepts of human, God and natural relations. From natural exploitation to harmonious relations, preventive efforts to reduce the climate change start from understanding the human perspective, from *abdullah* (servant) to *khalifatullah* (managing) nature. Humans are a symbol of the cosmology universe. Understanding humans well can lead one to comprehend nature completely and vice versa.

According to Kiai Nasruddin, climate change and environmental damage are caused by human activities. Therefore, there is a correlation between humans and the universe. The caregivers of Ilmu Giri provide illustrations of humans in the structure of the universe, as follows:

“Humans are a small part of the universe. Anatomy of nature is similar to human anatomy. Like the human body, nature has organs such as rivers, valleys, trees, plants, mountains, oceans, land, weather, garbage and metaphysical organs, such as the natural world. Humans are miniature small universes.”⁴⁵

Referring to the statement of the caregivers of Ilmu Giri above, humans are miniatures of the universe. Each element and component supports and strengthens each other. In human beings there are also elements of divinity namely spirit, encouragement of goodness (*malakut*), and encouragement of *syaitani* (*nafs*). Understanding yourself well and reducing the rate of lust are the basic capital in reducing the occurrence of climate change and natural disasters.

In addition to the foundation of the concept and paradigm of the relationship between God, man and nature, Sufi mitigation actions are managed through various programs that are concerned with the environment. In the context of fulfilling food needs, the Majelis Zikir Kraton facilitates and encourages farmers to plant rice with organic systems.⁴⁶ The Habib students also made seedlings of plants and

⁴⁵ KH. Nas, interview (21 Jul 2017).

⁴⁶ Field observations on the assistance of Kampung Paklim in Pesona Panjang and Degayu Villages.

vegetables to meet the needs of the surrounding community. In fulfilling food needs independently, Sufi groups not only use friendly products, but also break the chain of transportation that can trigger the release of emissions into the air, as a cause of global warming. Congregation people that are connected with *Jatman*, campaign for food sovereignty. *Mudir Am Jatman*, Habib Luthfi, a prominent Sufi figure from Pekalongan, has fueled the importance of national food security, food self-help and food sovereignty. Food sovereignty is not only related to nationalism, but also can reduce emissions caused by “production technology”, is environmentally friendly⁴⁷ and can reduce transportation distance.

Climate change studies show that energy use is made from fossils globally. The power generation sector contributes GHG 26%, industry 19%, transportation 13%, buildings 8%, and the rest emissions from forest conversion, agriculture, livestock and garbage waste.⁴⁸

The Majelis Zikir Kraton also supports microorganisms as waste decomposers containing chemicals. Habib Muh illustrates:

“We are obliged to revive biota in sewers or waterways. Batik waste has killed biota found in water because it contains chemicals. Entrepreneurs need to be invited together, so as not to dispose of any waste. We create microorganism projects in strategic places to provide space for all living things.”⁴⁹

Promotion of food sovereignty requires Sufis to fulfill their own needs and not depend on other nations.⁵⁰ Through this method, Sufis encourage the use of land and empty land to be planted with various types of plants and trees, which are known as natural producers of oxygen. Sufis are consistent between mind, heart and ecological actions.⁵¹ Thus, besides being able to fulfill their own needs, planting trees can also be used as a way to reduce greenhouse gas emissions.

In the Pesona area, Habib Muhammad and his residents planted

⁴⁷ Bosman Batubara, “Kejayaan Kapital”, *Wacana: Jurnal Ilmu Sosial Transformatif*, vol. 29, no. 1 (2013), p. 141.

⁴⁸ Ismid Hadad, “Perubahan Iklim dan Pembangunan Berkelanjutan Sebuah Pengantar”, *Prisma*, vol. 29, no. 2 (2010), p. 8.

⁴⁹ HMD Shahab, interview (15 Apr 2018).

⁵⁰ Agus Darman, interview (14 Apr 2018).

⁵¹ Arifin, interview (26 Jul 2018).

mangroves, a multi-functional tree. In addition to being able to withstand coastal erosion, this plant can also be a place to grow so that water biota and its fruits can be the raw material for cakes. Mangrove plants can control the heat of the earth. Habib Muh mobilized the community to plant mangroves on the basis of building religious awareness and getting closer to the creator. This program has been rolling out since 2010 and involves the Environment Agency, Bapermas, NU Cares for the Environment, the Majelis Zikir Kraton and lecturers and students of State Islamic Institute of Pekalongan (IAIN Pekalongan). This region, experiencing annual erosion of the coast caused by the waves and the seawater rate of the north coast can be smooth to the mainland. The average coastal area is eroded by about one meter. Agus Darman described this program as follows:

“We learn and provide information on the importance of environmental management. We plant mangrove on land that has been affected by the rob into fish farming and organic vegetable plants,. We are campaigning for planting mangrove trees, managing coastal forests (mangrove trees), planting coral, making water sanitation to cope with residents’ waste and rob and finally maximizing the management of fishponds.”⁵²

For Agus, to respond the environmental crisis caused by climate change, a proper understanding of nature is needed. The Majelis Zikir Kraton also has a program to park the main streets of the city as part of the reforestation program.⁵³ Sufi behavior in the Majelis Zikir Kraton is the antithesis of the worldview. Islam has an eco-philosophical spirit and the doctrine of protecting the environment and is practiced in religious communities.⁵⁴ Bratton revealed that there is an ecological dimension in religion. Eco-dimensionality can develop to overcome the problem of the ecological crisis⁵⁵

Since 2010, the Majelis Zikir Kraton has a program to plant

⁵² *Ibid.*

⁵³ *Ibid.*

⁵⁴ Baidhawy, “The Role of Faith-Based Organization in Coping with Disaster Management and Mitigation”, p. 187; Bratton, “Eco-Dimensionality as a Religious Foundation for Sustainability”, pp. 1–14; Rokib, “The Significant Role of Religious Group’s Response to Natural Disaster in Indonesia”, pp. 53–77.

⁵⁵ Bratton, “Eco-Dimensionality as a Religious Foundation for Sustainability”.

mangrove trees in the northern coastal area of Pekalongan. This program reinforces human character as a caliph who must protect nature based on the unity of God and humans, for the sake of justice and natural balance. Thus, this movement contributes positively to the prevention of climate change. Habib Muh, the nickname of the caretaker of Majelis Zikir Kraton, has environmental conservation work in the partnership program of Research and Community Service Institution (LPPM) IAIN Pekalongan and NU Cares for the Environment.⁵⁶

According to Hermawan, as the program officer, the community affected by rob is now being used by the community. People's land planted with a variety of organic vegetables was initiated by the Sufi program that joined the assembly. The edge of the pond, planted with mangroves. Mangrove trees, functioning to resist erosion and flooding, can also produce oxygen, and become a place for fish seeding and other aquatic biota. "Land around *Pesona Housing* that used to be arid and hot, now becomes cool,"⁵⁷ said Wawan. According to Wawan, the area of *Pesona* and *Gamer* is now a pilot project of the Central Java Provincial Environmental Service as the National Climate Village.⁵⁸

Unlike the Sufis in Pekalongan, the *Jamaah Ilmu Giri* of Yogyakarta uses several strategies to protect the earth. The first is through *mujahadah* and participatory education. *Mujahadah* is conducted by the *Ilmu Giri* community with the aim of: a) cleansing the soul of despicable traits, b) exploring the deepest inner consciousness, c) exploring the awareness of faith, and d) mediating a forum for inter-community dialogue. *Mujahadah* is done regularly and incidentally. The regular one is done every Saturday night, and *selapanan* (every Tuesday night pound). Meanwhile, incidental *mujahadah* was carried out when facing a major event, such as remembering the Jogja earthquake, *mujahadah* 40 days of peaceful elections, *mujahadah tapa brata* for the sake of the balance of the cosmos.

Second, *Ilmu Giri* Community utilizes the *mujahadah* assembly and established a school of nature. The school aims that learners can

⁵⁶ Hermawan, *Membangun Kampung Iklim: Pemanfaatan Laban Dampak Rob untuk Pertanian dan Perikanan Organik di Pesona Panjang Wetan Pekalongan Barat* (Pekalongan: P3M & NU Peduli Lingkungan, 2012).

⁵⁷ Hermawan, interview (25 Jul 2018).

⁵⁸ *Ibid.*

understand, realize and become defenders of the sustainability of natural resources, as life energy. Third, Ilmu Giri safeguard the nature through cultural values. For them, culture is an educational media of the boarding school. There are sublime messages of environmental preservation that are contained in local traditions and culture. Therefore, these worshipers try to care for culture. Caring for culture is the same as caring for the environment. This Sufi community builds networks in utilizing the 'green project'. Through this network and access, the views and values promoted by spritual-based environmental management can be maintained in the future. Ilmu Giri also requires that the pilgrims who will carry out the wedding to provide 40 tree seedlings (male 20, female 20). These tree seedlings are planted one by one after completing intercourse with husband and wife. Through the Sufism ritual above, climate change mitigation is passed through the Pesan Trend Ilmu Giri which emphasizes the awareness of the people on the importance of preserving nature in harmony.

The mitigation actions of the people of Ilmu Giri above are part of realizing the vision of environmental leadership for sustainable development based on God's love. In the context of climate change, the ecological vision of Sufism is translated into three main missions: (1) transforming the God's servant becomes the Caliph of Allah; (2), building mutual relations and nature; and (3) preserving and maintain natural balance.⁵⁹ With the mission above, the mitigation actions taken are through natural schools, reforestation movements, students forests, tourist forests, and local traditions.⁶⁰ Moreover, it also fosters a pioneering and innovative culture related to the issue of climate change.

For Aolia congregation, the climate change mitigation strategy is conducted with the principle of action "Dhikr for Ecological Conservation." Maintaining a sufism-based environment in the Aolia congregation is carried out through the activities of the *Sewelasan Dhikr* Assembly. The main activities performend are ecological prayers and

⁵⁹ Qodar, *Manajemen Kepemimpinan Lingkungan*, pp. 144–5.

⁶⁰ Like the practice of Himā (protected forest in the pre-Islamic era), tradition, culture and local potential are important assets in protecting the environment. Lutfallah Gari, "A History of the Himā Conservation System", *Environment and History*, vol. 12, no. 2 (2006), pp. 213–28.

dhikr (remembrance). Integration of remembrance and environmental awareness are key in dealing with climate change.

In the context of the Majelis Dzikir Aolia Panggang, prayer and *dhikr* are harmonized with natural life. According to Suwito, caregivers and worshipers believe that as an interconnected ecosystem, the dimension of birth cannot be separated from the inner dimension. This understanding is not shared by Westerners.⁶¹ In contrast to the beliefs of Western scientists, who are more concerned with rationality, competition, economic growth without regard to spiritual values,⁶² Sufis in the Aolia congregation believe there is spirituality in every element of physics. Religion provides the foundation for protecting the earth.⁶³ The power of prayer is very powerful. According to Ibn Hajar's spiritual vision, the prayer offered by the servant will make the particles in human beings in harmony and direction, which is easy to be invited to do obedience. Obedience will stimulate the heart to be sensitive to inspiration. A sensitive heart will be soft and purified".⁶⁴ A soft heart can illuminate environmental actions.

This assembly also carried out *mujahadab bi al-Awwrad* (hard work through wurd). For Aolia congregation, "performing *dhikr* is the process of cleansing oneself or draining dirt that is inherent in the congregation. They must be consistent in performing *dhikr* as given by the scholar (*kiai*). In this context, perseverance, patience, and sincerity to always be on the path of God became the path of the Sufis. Because the essence of *dhikr* is remembering God. Remembering the orders to be done immediately and remembering the prohibitions in order to avoid." That is, they understand the commands and prohibitions of God not only to stop at private worship, but also to mean natural and social vocation. In *Striving for Divine Union: Spiritual Exercises for Subrawardi Sufis*, Qomar

⁶¹ Anne Maricke Schwencke, "Seyyed Hossein Nasr: Islamic Esotericism, Traditionalism and Environmental Ethics", BA Thesis (Leiden: Leiden University, 2009), p. 20.

⁶² Olga V. Balaban et al., "Value Regulators of Co-Evolution Paradigm: Context of Environmental Ethics Rethinking", *Ekoloji*, vol. 28, no. 107 (2019), pp. 365–72.

⁶³ Gar Smith, "Islam and the Environment", *Earth Island Journal*, vol. 17, no. 2 (2002), p. 26.

⁶⁴ Suwito, "Eko-Sufisme", p. 201.

al-Huda voiced Sufi social consciousness.⁶⁵ To deny His command is the same as the attitude of persecution that brings natural disasters, as a warning to mankind.⁶⁶

For Aolia congregation, social work to reduce the impact of climate change is part of carrying out the decree of the Creator. Religious spiritual values become inspirations of self and social transformation.⁶⁷ In the context of environmental awareness, the Sufism approach taken by Aoulia Congregation can be effective. The change in mindset of the Aolia congregation related to environmental ethics has been appreciated and has always been a national champion in terms of environmental management.”⁶⁸

Environmental care activities in Sufism are carried out through acts of *takballi*, *taballi* and *tajalli*, the implementation of which is behavior that does not damage the environment, conduct conservation and campaigns about caring for the environment. For the Sufis, *dhiker* is the opening door to consciousness, which in religious nomenclature is called *hidayah* (guidance). *Hidayah* is fuel on the engine of social change. *Dhiker* and *hidayah* can be positive energy for environmental conservation or also signed as mitigation. Sufi actions facing climate change remind the social and political jihad movements of the *tarekat*.⁶⁹ Sufi order murshid like Mbah Munawir, Habib Muh, Habib Lutfi, Kiai Nasruddin and Mbah Ibnu responded to the issue of the threat of natural resource crisis, the environmental crisis and global climate hazards by building awareness

⁶⁵ Qamar-ul Huda, *Striving for Divine Union* (London ; New York: Routledge, 2002); Arthur F. Buehler, “Review: Striving for Divine Union: Spiritual Exercises for Suhrawardi Sufis Qamar-ul Huda: Striving for Divine Union: Spiritual Exercises for Suhrawardi Sufis”, *Journal of Islamic Studies*, vol. 15, no. 3 (2004), pp. 348–50; Thierry Zarcone, “Qamar-ul Huda, Striving for Divine Union: Spiritual Exercises for Suhrawardi Sūfī”, *International Journal of Middle East Studies*, vol. 37, no. 1 (Cambridge University Press, 2005), pp. 117–8.

⁶⁶ Rokib, “The Significant Role of Religious Group’s Response to Natural Disaster in Indonesia”, p. 61.

⁶⁷ Yazlina M. Yazid, “Faith-Based Environmentalism: A Case Study of Islamic-Based Environmental Organisations in the United Kingdom”, Master Thesis (The Hague: Institute of Social Studies, 2008), pp. 11–2.

⁶⁸ Suwito, “Eko-Sufisme”, p. 208.

⁶⁹ Martin van. Bruinessen, *Kitab Kuning, Pesantren dan Tarekat* (Yogyakarta: Gading Publishing, 2015), p. 459.

and ecological actions for the welfare of the people.

Sufi responses to climate change show there is a shift in understanding of the basic concepts and behavior of Sufis in interpreting *takballi*, *taballi* and *tajalli*. This Sufism narrative trilogy is not merely understood as a private worship narrative, but crucially needs to be connected with ecological problems. The real act of the Sufis to reduce the occurrence of climate change is by entering the door of *takballi*, namely ecological repentance. Reducing and avoiding thoughts and destructive actions can be the causes of climate change. At the same time, Sufis understand the concept of a productive-ecological nature. They take actions that can reduce greenhouse gas emissions protect forests and conservation areas. Exactly in the pre-Islamic tradition, the concept of Hima, a protected forest area controlled by a handful of rulers was introduced. During the Islamic period, Hima experienced a change of meaning as a public property for mutual welfare.⁷⁰ In this context, Sufis carry out environmental conservation movements based on Sufism.

Mitigation behavior piloted by the Sufis above shows that a person's ecological behavior is determined by their basic beliefs and understanding of each issue. Through their understanding that climate change is caused by destructive actions, efforts to overcome the environmental crisis must be carried out by the opposite action, namely being friendly and peaceful in harmony with nature.

E. Sufism and Adaptation to the Environmental Crisis

In 2009, along the coastal area, there were tidal or tidal floods. Through community empowerment programs, the Majlis Zikir Kraton invites worshipers to reconcile and adapt to the conditions of natural disasters. Majlis Zikir Kraton utilizes tidal inundation land for fisheries and organic farming. This method is effective to reduce the impact of climate change more severely. Sufis lead campaigns and concrete actions related to climate change adaptation. Even though the actions taken are small and very local, they still have global leverage.⁷¹

Habib Muhammad Shibab, the Caregiver of the Majlis Zikir Kraton

⁷⁰ Gari, "A History of the Himā Conservation System", pp. 213–28.

⁷¹ MA Mohamed Salih (ed.), *Climate Change and Sustainable Development: New Challenges for Poverty Reduction* (Cheltenham & Massachusetts: Edward Elgar, 2009).

of Pekalongan initiated and accompanied the people affected by the tide. Rising sea levels are believed to be an impact on climate change. Land which is flooded by rob water is used by the assembly members for fish cultivation. Habib Muhammad mobilized farmers in the *Pesona Kandang Panjang* and *Degayu* areas, to grow crops and raise fish organically. Adaptation to climate change can be done through practical matters, related to food sovereignty and also climate-friendly housing needs.⁷² Darman, one of the members and also as Chairman of *RT Pesona*, said:

“Since the rob cannot be overcome, the people of the village are enlightened by Habib Muh. He invited residents to take advantage of the flood conditions positively. Make a pool of stagnant lands. This pond is planted with fish. The food is from environmentally friendly ingredients. The land is also planted with vegetables and mangrove trees. He and NU Care for the Environment, LPPM IAIN Pekalongan help us manage rob land.”⁷³

Based on Darman’s statement, adaptation efforts to the effects of climate change are not merely the origin of managing land, but by anticipating further environmental impacts, caused by the use of inorganic materials. Because of this, Habib Muh introduced organic and farming technology. All types of vegetables and trees are managed with organic fertilizer. Organic fertilizers are also produced from waste management carried out by the community, which utilizes ‘organic’ goods originating from the Kutoharjo region of Pekalongan. Environmentally friendly activities pioneered by Habib Muh further reinforce the theory of Rajendra Pachauri⁷⁴ (2008) related to the correlation of good environmental conditions with quality social life. The transformation of dirty industries into clean water will greatly help to slow down, or even reduce the rate of climate change.⁷⁵ Reconciliation with nature is the

⁷² Luc Reyhler and Arnim Langer, “Peace-Building Software: The Creation of an Integrative Climate”, *Peace Research*, vol. 35, no. 2 (Canadian Mennonite University, 2003), pp. 53–73.

⁷³ Agus Darman, interview (10 Jun 2016).

⁷⁴ Rajendra K. Pachauri, “Global Warning: The Impact of Meat Production and Consumption on Climate Change”, presented at the *Peter Roberts Memorial Lecture* (London, 8 Sep 2008).

⁷⁵ Adrian Parr, *The Wrath of Capital: Neoliberalism and Climate Change Politics* (New York: Columbia University Press, 2012), p. 11.

solution to the environmental crisis.

1. *Forest as a Source of Livelihood*

Majlis Zikir Kraton stressed the importance of resilience to natural conditions, while Sufis who join Jamaah Ilmu Giri and Aolia Panggang make an impact response to climate change in the form of activities that contribute to economic improvement for *murshids* (teachers), students and the surrounding community. Environmental adaptation that has an economic impact can be seen in the social-geographical context of the local community. Land conditions in the Ilmu Giri congregation located in Nogosari village has 95% of rain-fed land. 5% of land can be irrigated from spring. 70% of the land is in the hills. 75% of the land is limestone, and 25% reddish brown soil. During the dry season, this rainfed land appears dry and cannot be planted because there is no water”.⁷⁶

The condition of the land around the Jamaah Ilmu Giri is very dry and rain-fed. In this region, the category of highland areas with minimal trees with contour of rocky land is categorized. Through tree planting that is able to absorb and store water, there is new hope for improving the quality of life. Sufi response the Ilmu Giri congregation against this ecological crisis argue the judgment of some people that Sufis only glorify spirituality. The Ilmu Giri congregation proves that there is a commitment to social and ecological issues, as defined by the Sufistic ideology of Seyyed Hossein Nasr.⁷⁷ Jamaah Ilmu Giri faces a water crisis. Therefore, with the spirit of sufism, Ilmu Giri innovates to create refining technology and water management. For Ilmu Giri, water is life. Without water, all creature will die. Water management is important so that water problems do not become a social problem.”⁷⁸

Ilmu Giri confirmed religious alliances and nature conservation.⁷⁹ Both of them can work together to overcome water shortages. Humans

⁷⁶ Observation (10 Agustus 2018).

⁷⁷ Schwencke, “Seyyed Hossein Nasr: Islamic Esotericism, Traditionalism and Environmental Ethics”.

⁷⁸ Suwito, “Eko-Sufisme”, p. 222.

⁷⁹ A.M. Schwencke, *Globalized Eco-Islam – A Survey of Global Islamic Environmentalism* (Leiden: Leiden Institute for Religious Studies (LIRS), Leiden University, 2012), p. 4.

cannot escape from water. In fact, the main human element (75-85%) is water. In the Javanese cosmology, especially the people of Nogosari that water is *penguripan* (life). The role of water cannot be replaced with another. Therefore, in the context of Islam, water is one of the public assets that must not be privatized. Remembering water is a vital means of life,⁸⁰ then the Ilmu Giri congregation tried to find and keep the source of the spring intact. Maintaining water sources on a scientific basis and local traditions is the key to the Sufi response to climate change.⁸¹ In Sufism, God determines everything through the intermediary of human action. Climate change is the fruit of Adam's grandchildren's behavior. The real impact of climate change is drought, the clean water crisis, on the one hand and flash floods on the other. Both resulted in a clean water crisis. The law of causality applies in understanding climate change.

Water supply, both for consumption and the needs of agriculture and plantations are needed by the members. Many members rely on *sendang* (small lake). There are two small lake that are very important for the people of Nogosari, namely Sendang Sarimulya and Sendang Ngisor Goa. The congregation is also trying to find alternative water sources to meet the needs of students. Kiai Nas drew their efforts to find the source of the spring as follows:

“Yes, water is a major problem for residents. To answer this problem, Pesan Trand Ilmu Giri tried to explore water sources in Nogosari. A water source was found at the boarding school location, which was then excavated and made a well. This well is now located just below the imitation of the school's mosque made of bamboo stage.”⁸²

At present, water as a source of life is often monopolized by investors. They carried out ‘privatization’ of water which was actually owned by the public. The form of the monopoly can be in the form of a drinking water company, control of the flow of rice fields, and control

⁸⁰ Madeline Baer, “Privatizing Water: Globalization, States, and Human Rights”, PhD. Dissertation (California: University of California, 2011).

⁸¹ Susan Stone, Mario Chacón León, and Patricia Fredericks, *Perubahan Iklim & Peran Hutan: Manual Komunitas* (Arlington: Conservation International, 2010), p. 29; Supian, “Eco-Philosophy sebagai Cetak Biru Filsafat Ramah Lingkungan”, *Teosofi: Jurnal Tasawuf dan Pemikiran Islam*, vol. 4, no. 2 (2014), pp. 508–32.

⁸² KH. Nas, interview (21 Jul 2017).

by the government as a 'source' of regional water supply companies (PDAMs). As an illustration, in 2003, Aqua-Danone, a multinational bottled water company opened a new factory in the Ponggok and Cokro area. As a result of its derivation, farmers began to complain about the shrinking of water flowing into villages and rice fields.⁸³ Clearly, farmers are victims of the monopoly of water resources by large investors. What happened in Ponggok and Cokro was also experienced by the Sufi community who joined the Pesan Trend Ilmu Giri.

For Jamaah Ilmu Giri, water is the source of life. Climate change that has an impact on the crisis of clean water will disrupt living organisms. They realize as in the Qur'an's postulate, "We (Allah) obey water from the sky so that living species grow on this earth." According to these Sufis, in order to be divine, the function of water needs to be preserved, as response to the effects of climate change.⁸⁴

The majority of Ilmu Giri members rely on the agricultural sector. For farmers, water is the most basic requirement. Water can guarantee plants to grow and develop properly. Without sufficient water supply, it can threaten the economic resources of the farmers. In this context, the Sufi response to the effects of climate change is parallel and leads to the availability of the farmer's economy, as well as spiritual enhancement. According to Suwito⁸⁵ the ability of adaptation carried out by the Pesan Trend Ilmu Giri can answer the economic needs of the people. The answer is not only the fulfillment of the needs of the members through environmental conservation activities, but also supported by religious values. Caregivers of the Pesan Trend Ilmu Giri, Kiai Nasruddin explained:

"Planting trees is like charity. There are many benefits of planting trees. Trees provide benefits for humans. Trees can grow, give shade; give

⁸³ Abdullah Faishol, "Petani, Pesantren Perusahaan, Negara: Perebutan Sumberdaya Air dan Proses-proses Pendidikan Rakyat di Sumberejo", in *Gamang: Lembaga Pendidikan Islam Menghadapi Perubahan Sosial*, ed. by Ahmad Mahmudi, Toto Rahardjo, and Roem Topatimasang (Yogyakarta: Dikti Islam Depag RI Jakarta, Lembaga Pengembangan Teknologi Pedesaan (LPTP), & INSIST Press, 2007), p. 41.

⁸⁴ Sri Yuliana, "Perempuan Merawat Air, Tanah dan Keluarga: Kajian Kedaulatan Pangan di Air Sugihan, Ogan Komering Ilir, Sumatera Selatan", *Jurnal Perempuan*, vol. 20, no. 3 (2015), pp. 61–71.

⁸⁵ Suwito, "Eko-Sufisme".

fertility; produce oxygen and make the air clean; can hold and exert wind; banish the pace or hold water; can be fruitful and eaten; and can provide economic value for future generations.”⁸⁶

Based on the views of Kiai Nasrudin above, adaptation efforts to climate change, not merely building interpretations behind the ‘catastrophe’ of climate change. There is a hidden wisdom. Sufis become more creative and innovative in dealing with and managing natural phenomena. The centers of the creative economy of the *ummah* appear as the climate impacts are uncertain. Appropriate technology for utilizing rainwater, processing organic and inorganic waste of economic value, and student forests is evidence of the positive response of the Sufis in responding to every crisis and natural disaster. The above efforts do not only have an impact on economic improvement or increase birth welfare, but also have implications for improving spiritual quality.

The emergence of the student Forest in a socio-cultural manner has changed the new identity of Nogosari farmers, from being passive to being active in managing the environment. Ecological studies held regularly and systematically proved to be able to encourage the Sufi community to be more enthusiastic in caring for the forest. Ecological studies change the way of thinking and behavior of the Sufi congregation. In the case of Sufism of Ilmu Giri, recitation is a vehicle for transformation of perspective. Changing perspective, according to Keraf is the key to changes in ecological behavior.⁸⁷

In 2010, the Jamaah Ilmu Giri had 55 hectares of forest. This forest was originally owned by islamic boarding school which initially had only 25 ha. Now, the student forest is growing rapidly and massively. The forests are guarded and developed more broadly because they function to protect the ecosystem. Maintaining the ecosystem well can guarantee the survival of other creatures. So far there is a false understanding that the forest is considered an ‘outside environment’, which is not related to the socio-cultural context. This assumption is clearly wrong. Nasruddin Anshory and Sudarsono express clearly that human, nature and God are interrelated in the context of Javanese culture. In his book “*Kearifan*

⁸⁶ KH. Nas, interview (21 Jul 2017).

⁸⁷ A. Sonny Keraf, *Krisis & Bencana Lingkungan Hidup Global* (Yogyakarta: Kanisius, 2010), p. 115.

Lingkungan dalam Perspektif Budaya Jawa”, scholars of environmental activists who are also humanists teach that humans are obliged to ‘Hamangku Bumi.’ This means that the earth as a natural environment has provided a source of livelihood for humans and their offspring, so that humans must take care and develop the sustainability of the earth. In the broader context, Nasruddin, as the *murshid* also taught his students to have the attitude of ‘Hamengku Buwana,’ the obligation of humans to recognize, maintain and preserve the entire contents of the universe.⁸⁸ Human relations and the environment built through mutual respect are proven to be mutually beneficial relationships. Student forest is a proof of Sufi beliefs and perspectives on nature. The environment or the forest can give birth to environmentally friendly social behavior.

For Ilmu Giri Congregation in the Nogosari village, forests are not only ecological functions, such as absorbing water, resisting landslides, energy sources, economic resources or building materials, but also guarding the cultural identity of local communities. Caring for the student forest means caring for culture and caring for life. Sufis who join the Ilmu Giri believe that one’s perspective and understanding can influence their behavior. Their endurance and resilience abilities are built on an awareness that climate change originates from human thoughts and attitudes that tend to be exploitative. Therefore, to control the rate of environmental damage and climate change, Sufis strengthen the awareness of the importance of thoughts and actions that can build harmonization of ecosystems. Sufis of Pesan Trend Ilmu Giri believes, through this awareness of climate change-according to the results of the *Intergovernmental Panel on Climate Change* research due to human greed⁸⁹ slowly can be controlled systematically.

2. *Managing Water for Sustainable Development*

Meanwhile, adaptation to climate change among Jamaah Aolia Panggang appeared in various forms. The congregation carries out

⁸⁸ M Nasruddin Anshoriy Ch and Sudarsono, *Kearifan Lingkungan dalam Perspektif Budaya Jawa* (Jakarta: Yayasan Pustaka Obor Indonesia, 2008).

⁸⁹ Ahmad Maryudi, “Lahan Gambut dan Perubahan Iklim: Distorsi Sains, Politik, dan Kebijakan”, *Wacana: Jurnal Ilmu Sosial Transformatif*, vol. 27, no. 1 (2012), pp. 2–10.

activities related to the availability of water, greening the land, and also environmentally friendly businesses that have an impact on improving the economy of the community.

As in Nogosari, the Panggang area is a limestone mountain, whose land is unproductive. The water crisis is a key feature of the local community. The following illustration given by Suwito:

“Panggang is the name of a village and also the name of a sub-district in Gunung Kidul district, Yogyakarta. In this area, a congregation led by KH. Ibn Hajar carried out *mujahadah* activities (*Sewelasan*) while at the same time having an environment. This area is also the center of activities, which have now spread to various regions.”⁹⁰

In the teaching of Javanese cosmology, the first thing to find is a spring. Spilled water is believed to be a source of prosperity for its inhabitants. Water control was also used as a military strategy by the great Prophet Muhammad in fighting his enemies. Who controls the water he will be able to overthrow every enemy. Apparently, the *Murshid* (teacher) was inspired by the way the Prophet built the governance of a civilization. Before establishing the mosque, Kiai Ibnu Hajar began his struggle by exploring water sources. KH. Ibn Hajar made water reservoirs first. This tank is made to meet the needs of people for water. The following are traces of making a reservoir.

“Before establishing the mosque, KH. Ibn Hajar who at that time had done recitation at his house (1975-1983) then together with his congregation made a tub of water under the ground. Before there was a water reservoir made in 1984, people had to queue for hours to get water in a shower where the discharge was very small in the dry season. This shower is located at the base of the Dengkeng River which is about 600-1500 meters from the residents’ house.”⁹¹

Conditions of water shortages make the Jamaah Aolia think of managing rainwater through the construction of a *tandon* (reservoir). One of the targets of the *Millennium Development Goals* (MDGs) agreement is to reduce a proportion of the population without access to clean water and sanitation. The crisis of clean water, as an effect of climate change, affects the majority of Jamaah Aolia Panggang. *Tandon* is one of the strategies

⁹⁰ Suwito, “Eko-Sufisme”, p. 244.

⁹¹ Hasan, interview (4 Mar 2018).

of the *santri* (student) in guaranteeing water sources. In the context of sustainable development, the making of reservoirs carried out by Sufis on Jamaah Aolia Panggang becomes an urgent part of fulfilling community-based clean water needs.⁹² So far, clean water services have been fulfilled through two approaches, namely through institutions (agencies, regional or private companies) and based on community participation.⁹³ The reservoir made by the students is an effort to breed, store, manage and care for rainwater to be used as a supply of shared needs. Through the management of *Tandon*, dense rain water is utilized as optimally as possible, so that it does not leave natural assets in vain. Rain as a gift of God is addressed with gratitude, which is managed based on knowledge and science that is owned by the community. Generally, rain water just thrown away is considered to be of no use. Through the appropriate technology created by Jamaah Aolia Panggang, rain water is the solution to the clean water crisis that has hit the Sufis in the mountainous region.

The process and reason for making *Tandon* can be illustrated in the following way:

“catching rainwater is done together with congregation so that it is not wasted. The congregation and the clerics make concrete tubs on each side. Rainwater that falls on the tiles or the building is flowed to the gutters which are then transferred to the tub that has been prepared.”⁹⁴

The water reservoir technique is then replicated in various places. Water management done by the Jamaah Aolia Panggang as an adaptation to climate change needs to be understood in the context of broader development, which is planned and sustainable. Sufis in the highlands are trying to build community resilience capacity in the face of every disaster. They realize that increasing the resilience of the people to the effects of climate change requires institutions, infrastructure and even a strong ecosystem.⁹⁵ This strength will help reduce climate shocks, economic

⁹² Mbah Benu, interview (5 Mar 2018).

⁹³ Pande Made Kutaneegara (ed.), *Membangun Masyarakat Indonesia Peduli Lingkungan* (Yogyakarta: UGM Press, 2014), p. 125.

⁹⁴ HSN, interview (4 Mar 2018).

⁹⁵ Kusnanto, *Adaptasi terhadap Perubahan Iklim*, p. 29.

pressures and food security of local people caused by climate change.⁹⁶

In addition to water reservoir management, the Jamaah Aolia Panggang also makes water absorption in the lake *pengilon* are. This recharge is similar to the biopori technique which is used to capture the overflow of rainwater that flows into the gutters. Lake *pengilon* serves to absorb, store and become a source of water to meet the needs of farmers and households.

Besides having an impact on the availability of abundant water, Sufi behavior in the context of climate change, is also a forum for murshid students in establishing 'networking' in response to a variety of disasters caused by climate change. The strength of Sufi networks is like a modern religious organization when responding to the issue of natural disasters. Not only synergize with local communities, but also the global community.⁹⁷ To reduce greenhouse gas emissions, Sufis in the Jamaah Aolia Panggang strengthen their adaptive capacity through internal and external networks through religious narratives as instruments in managing the environment.⁹⁸

The existence of the santri and murshid forums has important implications for various parties to be able to share knowledge, information, access, opportunities and other needs. Important impacts such as greening the land, food availability, sources of clean water and decreasing greenhouse gas emissions are also involved. Sufi ecological behavior can certainly be the answer to the global phenomenon of climate change in the midst of the world population that tends to be anti-environmental.

F. Concluding Remarks

Sufis have a big contribution in preserving and protecting the earth. Through analysis of mitigation and adaptation actions to climate

⁹⁶ Shaikh Mohammad Kais and Md Saidul Islam, "Community Capitals as Community Resilience to Climate Change: Conceptual Connections", *International Journal of Environmental Research and Public Health*, vol. 13, no. 12 (2016), pp. 1–16.

⁹⁷ Baidhaw, "The Role of Faith-Based Organization in Coping with Disaster Management and Mitigation", p. 187.

⁹⁸ Zainal Abidin Bagir, "The Importance of Religion and Ecology in Indonesia", *Worldviews*, vol. 19, no. 2 (Brill, 2015), pp. 99–102.

change in three Sufi community groups in Indonesia, it can be concluded that the spirit of Islam has a normative and ideological foundation for environmental movements. This finding is contrary to Prasenjit Duara's thesis which states that celestial religion like Islam is the cause of environmental crisis. However, the three Sufi communities have a meeting point and a separate point of thought and Sufism in responding to the environmental crisis caused by climate change. In terms of paradigm, the three have the view that natural crises, disasters and climate change are the authority of God, whose main cause is human behavior. For them, climate change is not merely a natural phenomenon. The dynamics of science, technology, industrialization and science that are based on a positivistic perspective are believed to be the trigger for climate change and ecological disasters. For the sake of realizing environmental sustainability, the three Sufi communities campaigned for the ideology of power relations that are evenly distributed. They arranged human and natural relations harmoniously under the teachings of *tawhid* (Oneness of God).

However, from the context of the contextualization of safeguarding the earth, Sufi congregation such as Majelis Zikir Kraton, Pesan Trend Ilmu Giri and Jamaah Aoulia Panggang have different sufistic mechanisms. Actual action in the field depends on the environmental crisis situation faced. The Majelis Zikir Kraton experienced a different environmental crisis from the Ilmu Giri and Jamaah Aoulia Panggang. They contextualize the meaning of the basic concepts of *takballi*, *taballi* and *tajalli* on the basis of religious values. In situations of ecological crises and disasters, Sufis can find a way out of the complexity of the global climate, with a basis of potential and values of locality and the doctrine of the religion they hold. Promoting simple life, ecological repentance and establishing harmonious relations with nature, as well as filling in activities with environmental conservation are believed to be able to withstand the pace of climate change. The simplicity of the Sufis does not merely practice the substantial Islamic teachings of environmentally friendly but also as a protest movement against the lifestyle model of capitalism. Esoteric energy of Sufism has proven to be an inspiration (*tajalli*) for the public in managing sustainable ecology. The shift in articulation of the concepts of *takballi*, *taballi* and *tajalli* in the context of repentance, ecological movements and campaigns through mitigation and adaptation to climate

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change, reaffirms religion as the basis for responding to the environmental crisis. Observing the three Sufi communities in responding to climate change, gave birth to new hopes about the beautiful future of the earth.

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