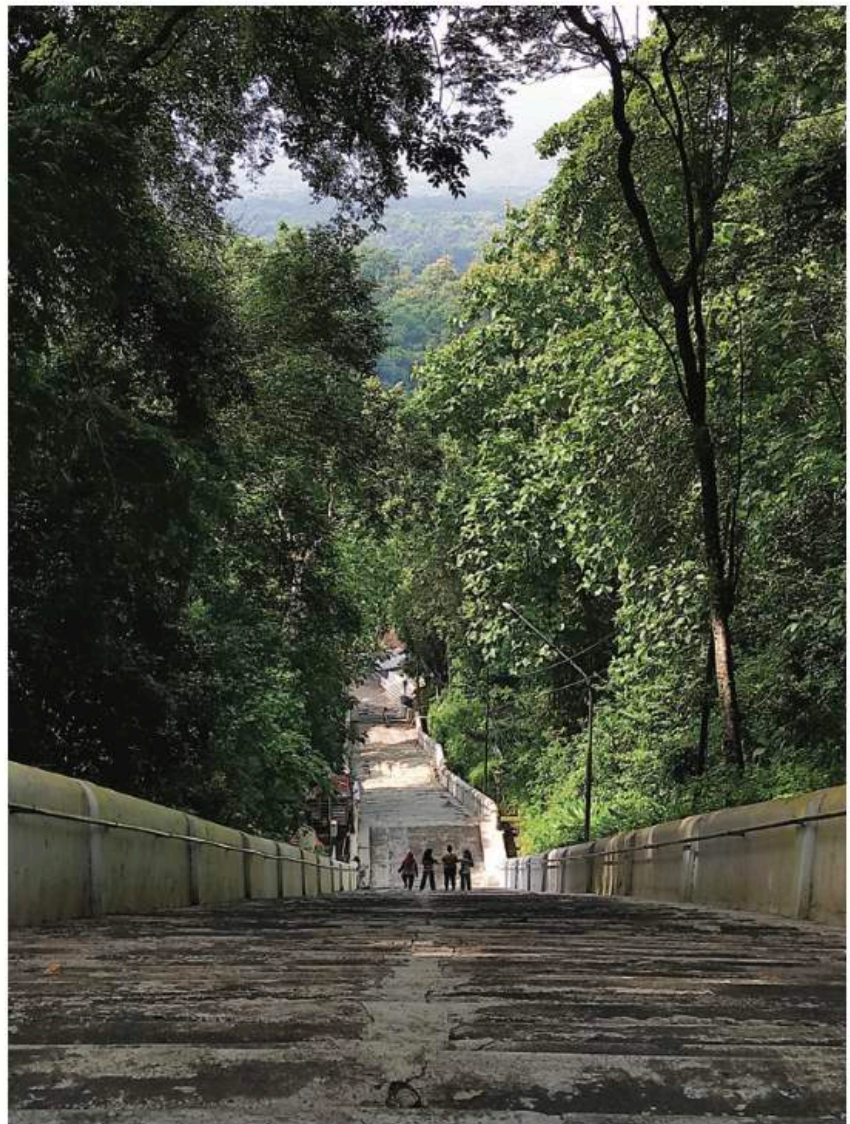Zainal A. Bagir, Michael S. Northcott,
Frans Wijsen (Eds.)

Varieties of Religion and Ecology

Dispatches from Indonesia

Zainal A. Bagir, Michael S. Northcott,
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Varieties of Religion and Ecology

Nijmegen Studies in Development and Cultural Change

edited by

Prof. Dr. Frans Wijsen, Prof. Dr. André van der Ven,
Prof. Dr. Eelke de Jong, Prof. Dr. Toon van Meijl

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LIT

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The picture shows the Imogiri graveyard of the kings and their families that belong to the kingdoms of Mataram Sultanate, Yogyakarta and Solo. Surrounded by nature, it is a popular site of sacred pilgrimage.

This book is printed on acid-free paper.

FOREWORD

The relation of mankind with nature and its position in the universe has been an important topic for philosophers and various other scientists since man started to ask questions. Although our understanding of the geo-physical, ecological and chemical processes has improved enormously over the past centuries and continues to grow, many basic life questions remain un-answered.

In the ancient history of the human race, spiritualism and religion evolved, driven by the need to explain the role and interaction of mankind with nature and the universe. These beliefs became increasingly important as they formed the basis for norms, values, and social behavior. In fact, spiritualism and religion are the cornerstones of our social cohesion and cultural identity. Apart from these generic features there are of course also many differences between the various beliefs. One could state that roughly each (sub)culture or (sub)-population has its own spirituality or religion with its own set of dogmas and assumptions.

Within the context of sustainability there is nothing wrong with that, because there is no religion or spirituality that in its core aims at the destruction of nature of which man is part of. Actually, the diversity of beliefs should be celebrated because we need all of them to regain the balance with nature.

It goes wrong when a few of us use the social power of spirituality and/or religion for its own gain. Unfortunately, the history of mankind is interlaced with this kind of incidents where wars, or "friendly" takeover of someone else's resources (colonialism) are justified "in the name of God". This underlines once more the importance of a better and wider understanding of how spiritualism and religion came to live, what they entail, and how they can help to restore the balance between mankind and nature.

Within this context, the book Varieties of religion and ecology, Dispatches from Indonesia is an important source of information. It helps us realize a better intercultural understanding and mutual respect between The Netherlands and Indonesia. Additionally, it provides guidelines on how to join forces in a concerted action to save our planet and with that the future of the human race.

Toine Smits,
Professor of Sustainable Water Management,
Radboud University, Nijmegen

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INTRODUCTION
THE VARIETIES OF RELIGION AND ECOLOGY

Zainal Abidin Bagir

This book opens with a case examining the construction of the New International Yogyakarta Airport. It was built to accommodate more than 4 million tourists per year who visited the city, known in tourism books as a university town and the Javanese "cultural capital" of Indonesia. The building of the new airport, however, caused controversies over acquisition of the site because of dramatic conflicts with the people, mostly Muslim farmers and fishermen, who live in the area. Chapter 2 studies a similar case of the reclamation of the Benoa Bay in the Hindu majority Bali.

Most other chapters in this book are similar in the sense of being based on empirical research on particular recent problems related to the environment in Indonesia. Not all of them may seem to be natural cases of "religion and ecology", but all chapters show the different ways religions—in their many dimensions—engage with ecological concerns—in a broad sense.

This introduction locates the chapters in an attempted map of the field. It goes without saying that there are many ways of drawing a map of this kind due to the intent of the cartographer. My purpose here is simply to show the varieties that are less developed and emphasize areas which are less known in the literature.

The Field and its Recent Developments

Religion and ecology as a field of study may be said to have begun in the 1960s, not long after the emergence of awareness of a global environmental crisis the decade before. Since the beginning, the study of religion and ecology has never been a purely academic field. Instead, it is tied to engagement with real life problems, and has often been closely associated with environmentalism.

Religion relates to the environmental crisis in several ways. First, as seen in the earliest analysis of the relations between the Muslim and Christian worlds where (some form of) religion, or its rejection, was identified as among the

causes of the environmental crisis. In 1966, the Muslim philosopher Seyyed Hossein Nasr delivered four lectures at the University of Chicago, which were later published as *Man and Nature: the Spiritual Crisis of Modern Man*. He saw that the crisis originated in secularized modern science, which emptied the cosmos of its sacred character: "The world view of modern science, especially as propagated through its vulgarization, itself contributed to this secularization of nature and of natural substances" (Nasr, 1967/1990, p. 21).

A year later, in 1967, the American historian Lynn White, Jr., published an article in *Science*, which specifically blamed Christianity for the crisis: "By destroying pagan animism, Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects" (p. 1205). As such, "Christianity bears a huge burden of guilt" in today's ecological crisis (White, 1967, p. 1206). While this controversial argument may seem simplistic, it stimulated responses which animate the discourse on religion and ecology even to this day. Beyond Christianity, one of White's (1967) widely quoted statements is: "What people do about their ecology depends on what they think about themselves in relation to things around them. Human ecology is deeply conditioned by beliefs about our nature and destiny—that is, by religion" (p. 1204).

Second, partly as a consequence of the first, religion is expected to contribute to the solution of the problem. Religion may contribute in ways that are different from how science, technology and policy engage with the environment. In this regard, as two pioneers of religion and ecology, Mary Evelyn Tucker and John Grim (2018), put it:

> [t]he work in religion and ecology rests in an intersection between the academic field within education and the dynamic force within society. This is why we see our work not so much as activist, but rather as "engaged scholarship" for the flourishing of our shared planetary life. (p. 10)

The maturity of the field today is evidenced not only in the emergence of reference works on the field,[1] a few hefty handbooks,[2] journals (or many

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[1] The Harvard series Religions of the World and Ecology (1997–2004) edited by Mary Evelyn Tucker and John Grim is an obvious example, which is also constitutive of the field. Also see The Yale Forum on Religion and Ecology: https://fore.yale.edu/

[2] The *Routledge Handbook of Religion and Ecology* (2017) edited by Willis Jenkins, Mary Evelyn Tucker, and John Grim, *The Oxford Handbook of Religion and Ecology* (2006) edited by Roger S. Gottlieb, and the *Encyclopedia of Religion and Nature* (2005) edited by Bron Taylor.

special editions on the topic in more general journals)[3], and courses, but also works that self-reflect on this development. In *Inherited Land: The Changing Grounds of Religion and Ecology* (2011), the editors perceive their work as a reflection on the field, the land they inherit. It describes the work of scholars in the field as "[paying] attention to contemporary environmental degradation and [connecting] these challenges to the beliefs and practices of religious communities and traditions" (Bauman et al., 2011, pp. 10–11). It is inter-disciplinary and academic, but also engaged.

Inherited Land proposes a different way of doing religion and ecology, not focusing on particular religions (such as the Harvard series), but reflecting on methodological issues and interrogating the very conception of "religion" and "ecology". As an example, the chapter by Eleanor Finnegan (2011) criticizes the world religion paradigm which has biased the field. The world religion paradigm has also very significantly coloured a certain way of looking at religion, which does not seem to be well informed by critical discussion of the term "religion" in religious studies. She quotes Gottlieb's *Oxford Handbook of Religion and Ecology* which formulates the main questions in religion and ecology in this way: "What have the world's faiths believed about the human relation to nature? And how must beliefs (and actions) change as we face the environment?" (Finnegan, 2011, p. 67)

Such a formulation, which is representative of a large portion of the discourse, is not only biased toward particular (world) religions, but also the major representatives of the tradition, and tends to rely on (theoretical) construction of religious (theological, ethical) responses to the problems. In contrast, Finnegan's study, based on her empirical research on Muslim farms in the US, moves beyond that construction of the field. It does not look at the expression of religious texts but focus on the practice of communities; it does not focus on the mainstream, but on double-minority religious communities (sufi Muslims in the US). With this, she also tried to move beyond what may be perceived as Western (mostly Christian) conceptions of the field, which are based on particular construction of what "religion" is.

To continue another example of a different "Islam and Ecology" conception, one may look at Anna Gade's recent excellent work, *Muslim Environ-mentalisms*, published in 2019. Gade (2019) notes that, "With few exceptions,

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[3] *Worldviews: Global Religions, Culture, and Ecology* and *Journal for the Study of Religion, Nature, and Culture*.

work in this area tends not to discuss living people or detailed particulars" (p. 4). While criticizing the over-emphasis on textual-analytical study of main Islamic texts, she does not abandon that type of study but weaves it with an ethnography of Muslim lives to show the diverse Muslim landscapes of environmentalism, in which text and context are inseparable. Ethnographic work also helps to sift Eurocentric bias in studies of environment and religion. Rather than trying to find comparable terms, such as the central term "stewardship", in the Qur'an, she listens to how Muslims read the scripture and interpret their surroundings. Islamic norms are found, or re-constructed, not only through studies of key terms in the scripture but as expressed in lived traditions. In this way, rather than submitting Islam to the dominant discourse (in her book, her central attention is environmental humanities), she tries to bring Muslim voices forward to contribute to shaping the discourse. Needless to say, this observation applies not only to Islam (in Indonesia or Southeast Asia as her main sites), but also other religions, including Christianity, as chapters on Christianity in this book show to some extent.

The Book: Varieties of Religion and Ecology

The chapters in this book are not guided by a common theoretical framework, but intend to portray varieties of "religion and ecology" which follow some of the new trends depicted above. They are based on ethnographic or other empirical research and cast a wide net of what is understood as religion and ecology. The meanings and many dimensions of each of these terms are also contested. The varieties of religion and ecology stem from the many dimensions of each term, "religion", "ecology" and, not the least, the "and", which depicts the relation between the two—some cases do prompt questions about whether we can truly separate what is religious and what is ecological.

First, the chapters here represent diverse religious traditions/communities, which include Islam, Hinduism, Christianity and indigenous religions. But there are also deeper pluralities at play. Ilham's chapter looks at a group of progressive Muslims, who identified themselves as Marxist, but at the same time are deeply grounded in Islamic tradition—more specifically the Nahdlatul Ulama (NU) tradition. NU is a variant of Indonesian Islam and the group is a variant within it, which is not always accepted by the main, official representative of NU.

The Islam of the Muslims in the area of Citarum river, discussed in Frans Wijsen and Haryani Saptaningtyas' chapter, is of a different variant. There are local Muslims, but also a Muslim painter, grounded partly in their Sundanese tradition, all responding to the polluted river which affects their daily lives. The community which does rain harvesting in Yogya, discussed in Rani Hapsari's chapter, represents yet a different religious community. While the activists/member of the Banyu Bening community are mostly Muslim, they are not specifically identified by their religion; yet some use religious, especially Islamic, language to describe their ecological awareness. Interestingly they learned rain harvesting from a Catholic priest well-known for his ecological works.

The chapter by Singgih and his colleagues looks at a Christian village in Malang, East Java, while the Christian communities discussed by Tarigan and Simbolon show tensions with indigenous religions in two different districts of North Sumatra. They all are different representations of Christianity. Some observers group the communities in North Sumatra into the same ethnic group (Batak), but actually they are different: one is Karo Batak (Tarigan's chapter), the other is Toba Batak (Simbolon's). In general, they may be identified as Christians (especially when a different identification was not possible under Indonesian law), but they also represent two different indigenous traditions in the area that are in tension with Christian churches which regard them as practicing un-Christian traditions. It is interesting to compare it with Ribka's case, in which the Christian church in Central Maluku adopts the *adat* (customary tradition) of *sasi* (abstaining from taking natural products, such as fruits and fish, for a certain period of time).

Ribka contends that while studies of *sasi* abound, many are colored by Christian/world religion/colonial biases. She uses an indigenous religion paradigm to try to dig deeper into the practice and its ecological significance. The entanglement of *adat,* religion and environmentalism also appears in the chapter by Sihombing, which looks at an environmental movement in Bali. The movement started as a secular environmentalist movement, but was later supported by official Hindu arguments, put forth by the national Hindu religious council, as well as international discourse on "sacred sites". All these chapters show how rich and deep the plurality of "religion" is on the ground and always reminds us to avoid generalizing or essentializing it.

The *second* origin of the varieties is the term "ecology" (or environment). Chapters in this book depict quite diverse and broad meanings attached to the

term. It concerns land (Ilham), river (Wijsen & Saptaningtyas), sea (Ribka), bay (Sihombing), rain water (Hapsari), mountain (Tarigan), forest and lake (Simbolon), mangrove forest (Singgih et al.) and health (Northcott). They refer to kinds or qualities of beings and places which are part of nature, not only "spaces" but places which are always tied to the people living there. Despite the differences, they all show how the issues taken up are linked in different, complex ways with the broader social, political and economic contexts. These are clearly not just about religious views on nature /environment, but how the religious is entangled with the ecological.

Third, as the field of religion and ecology is activist or engaged, one may also ask how the entanglement impacts the people, the religion, and the environment. Sihombing's chapter, on resistance to a business developer's reclamation of the Benoa Bay, shows how a completely secular understanding of issues such as this does not work in Hindu majority Bali (and one may surmise, in Indonesia in general, with different religious majorities in different areas). The secular environmental movement readily uses the argument of "sacred site" (which is religious, but at the same time may also be "publicized" by reference to international UN norms on sacred sites, and officiated by the national Hindu religious council) to help their cause. Wijsen & Saptaningtyas' chapter shows that, not only in advocacy, but in environmental policy making, a good understanding of the religious dimensions (and their pluralities) of the community is important. In this regard, Ilham's case is fascinating in a different sense, as it shows how an environmental movement is combined with an agrarian movement in resisting the building of the new airport in Yogyakarta. The hybrid movement represents a creative interpretation of Islamic traditions, informed by a Marxian understanding, and puts emphasis on the values of social justice and standing with the victims of development.

Ilham's and Sihombing's chapters represent the "hard" case of environmentalisms, which are not only about promoting "green religion", but challenge the mighty state and corporations frontally, and sometimes responded to violently—in Bali they won, in Yogya they lost. But the main issue here is surely not about whether a case is hard or soft, but how they help us dig ever deeper into understanding both religion and ecology. Studies of this kind also show how the environmentalist practice of individuals and communities investigated here disrupts the strict sectoral segregation of a secularized paradigm and opens possibilities to see interactions between

religion and ecology, to the point of, in some cases, blurring their differentiation.

The last stage of the preparation of this book took place during the Covid-19 pandemic, which is not only an issue of public health but has ecological significance. As such it is fitting to end this book with a chapter on religion and ecology after Covid-19. Michael Northcott's article opens with a recap of the history of Indonesian environmentalism since the Dutch colonial time to the present day. He investigates the relationships between public health, environmental justice and the non-recognition of indigenous people—all of which are connected by way of aspiration for development and modernisation. He argues that the Covid-19 experience should help refocus environmental action, awareness, policy making and regulation on human health, and that "religion remains a huge source of 'social capital' in Indonesia" in this direction.

The editors hope that these studies will contribute to the growing religion and ecology discourse and, based on Indonesian experiences, enrich the global conversation. This publication has taken more time than we envisioned in the beginning and gone through different stages, but we are very happy that it is now published. We hope this will be followed by more publications on religion and ecology in Indonesia, as there are surely many more avenues to be explored.

Acknowledgment

ecofeminism in Indonesia, and Samsul Maarif, the director of CRCS, who participated productively in both workshops. Since late 2019 Michael Northcott, who is doctoral faculty at the Indonesian Consortium for Religious Studies, joined as part of the editorial team and generously contributed a chapter in a short time.

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CHAPTER 1
PROGRESSIVE MUSLIM ENVIRONMENTALISM: THE ECO-THEOLOGY AND ETHICS OF THE NAHDLIYYIN FRONT FOR SOVEREIGNTY OVER NATURAL RESOURCES (FNKSDA)

Ali Ilham Almujaddidy

Abstract

The discourse of Islam and Ecology in Indonesia pays much attention to theological and ethical-normative aspects of how Muslims should deal with environmental problems. Studies on environmental movements, on the other hand, have focused mostly on community bases such as eco-*pesantren*. The fact that is often overlooked in those studies is the interaction of actors operating within the context of unequal power relations where political, epistemological, and ontological aspects of the environment are contested. Drawing on the empirical case and comparative literature of Islam and ecology, this article discusses the role of the Nahdliyyin Front for Popular Sovereignty over Natural Resources (*Front Nahdliyyin untuk Kedaulatan Sumber Daya Alam* or FNKSDA) as a progressive Muslim environmental movement that not only reforms understanding of the environment at the theological-ethical level but also engages with direct advocacy for people affected by agrarian and environmental conflicts. The conflicts, at the same time, are reflections of the current ecological crisis. FNKSDA integrates traditional *fiqh* (Islamic legal jurisprudence) with Marxist epistemology to analyze the conflicts, from which it produces eco-justice ethics. These ethics do not distinguish between ideas and practices, instead, they focus on the social and ideological analysis of the problem. The hermeneutical privilege of the oppressed (*mustadh'afin*) is also central, by which they contribute to bringing new voices, that of the oppressed, to the discourse of Islam and ecology.

Keywords: Islam and Ecology, Environmentalism, FNKSDA, Eco-Justice Ethics, Marxist epistemology

Introduction

When writing this article,[1] I stayed with many activists on the southern coast of Yogyakarta, participating and observing their advocacy for the local farmers and fishermen who struggled to protect their land from the construction of the New Yogyakarta International Airport (NYIA) in Kulonprogo. While my objective was to meet the activists of Front Nahdliyyin for Sovereignty over Natural Resources (*Front Nahdliyyin untuk Kedaulatan Sumber Daya Alam*, or FNKSDA), I found that there were also many activists from diverse backgrounds and community organizations who willingly participated in building solidarity with the local people, including support from abroad.[2] They occupied a mosque that survived the process of the eviction by the state-owned airport operator as a basecamp of movement and solidarity to fight against the development project. The mosque is located in the middle between the northern and southern boundaries, and on the mid-west part of the entire airport project.

Opposition to this airport construction had been ongoing since 2011. There were at least six villages with around 11.501 residents and 2.875 families who were affected.[3] Pros and cons regarding the project had ironically managed to split the community. While some residents were willing to sell their land for some financial compensation, others chose to resist to protect their farmland. Those who accepted the buyouts perceived that their decision was "progress," while those who refused the land acquisition formed a solidarity organization called the Association of Citizens Against the Kulonprogo Eviction (*Paguyuban Warga Penolak Penggusuran Kulonprogo* or PWPP-KP), allied with local and national organizations such as the prominent Indonesian Forum for Environment (WALHI), *Jogja Darurat Agraria* (Jogja Agrarian

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[1] This article is based on my master's thesis, titled *Progressive Muslim Environmentalism: A Study of the Nahdliyyin Front for the Sovereignty of Natural Resources*, written at the Center for Religious and Cross-Cultural Studies, Universitas Gadjah Mada, Yogyakarta, Indonesia (Almujaddidy, 2019).

[2] The locally initiated solidarity has worked with activists, NGO's, and non-profit legal aid. They have also been supported by some international fellow activists, including Global Anti Aetropolis Movement (GAAM). Also see https://antiaero.org/tag/nyia/

[3] When I arrived at the site of resistance, including the mosque and a resident's house, we conducted an open and unstructured discussion involving many activist and solidarity fellows. Yet for more detailed data, I relied on the documented report officially made by the activists' alliance.

Emergency), Yogyakarta Legal Aid Foundation, FNKSDA, and others.[4] They use many channels and methods for their activism, including social media campaigns, solidarity posters and banners, websites, and online articles, as well as religious acts such as prayers.

The reason for the resistance was not simply because most of the locals had inherited the land through ancestral lines for many generations. There were also many administrative and legal problems in the development of the airport which invited conflicts involving government officials, police and military apparatus, activist alliances, and the local communities. The legal process of the eviction, for one, did not have consent from some landowners. The license to build the airport, the activists contend, was acquired without a proper Environmental Impact Assessment. Environmental concerns such as food security and the potential of natural disaster, particularly tsunami, has been neglected. The economy and livelihood of the local residents who relied on the income of agricultural activities were also threatened. Moreover, the project not only proposed to build a new airport infrastructure to replace the overcrowded older airport, but also to establish an aerotropolis which makes the threat more generational and potentially results in more displaced communities.[5]

The intimidation, repression, and criminalization used by state apparatus to repel the residents and solidarity activists during the process, injured them physically and mentally and worsened the situation. They demolished the houses and damaged farmland and plants with excavators and bulldozers. They also arrested some of the locals and activists who fought in the front line of resistance, including some of the FNKSDA activists.

When I drove an FNKSDA activist Muhammad Al-Fayyadl to the site of resistance, we were informed that the police had closed the main road access, blocking the coming of outsiders and left the families who refused relocation within the blockade. Yet, we still found a way through a small poorly shaped road that leads us to the mosque, thanks to the helping hand of the local people. The situation was made worse because the company and the security

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[4] A map about this event can also be seen through the report of the Environmental Justice Atlas (2018).
[5] The source of the data regarding this has been documented by an activist alliance (PWPP-KP, 2017).

apparatus had also cut the electricity, forcing the local people to use the genset to light their nights, and paralyzing their electricity-dependent activities.

In this article, I examined the role of FNKSDA as an Islamic faith-based organization which initially emerged out of concern over specific land conflicts in Sidoarjo (East Java) and Urut Sewu (Central Java), but has been involved in many other advocacies over the years.[6] It is a movement organized around scholar-activists most of whom are *santri* (alumni of traditional Islamic boarding schools, or *pesantren*) grounding their movement at the grassroots level. Until this research was conducted, they already have 16 branches across the archipelago that serves in their respective local issues.

FNKSDA brings a new discourse in Islam and ecology or environment that involves social, political, and ideological analysis of problems related to particular, mostly local environmental issues. It distinguishes them from the "Islam and ecology" analysis that focus mostly on the roles of Islamic teachings in general environmental problems. In another way, FNKSDA contributes to narrowing the gap in progressive Muslim thought, that scholar criticizes for not taking ecological concerns seriously (Bagir & Martiam, 2016, p. 79).

This research was conducted from 2017 to 2018 in three regions in Java: Bandung (West Java), Malang (East Java), and mainly in Kulonprogo (Yogyakarta). I choose Bandung to participate in *Pesantren Agraria*, hosted by the local FNKSDA chapter. I went to Malang to interview some FNKSDA members and collected the organization's primary documents, such as its bylaws, advocacy reports, as well as other related documents. In Kulonprogo, I participated in some advocacies and programs. Since the FNKSDA members also utilize social media as a medium of activism, I too engage with their thoughts through its official blog, websites, online articles, and widely shared social media posts, particularly Facebook and Instagram.

In analyzing the data, I used general conceptualization procedures by describing the objective of FNKSDA and analyzing it within the discursive framework of Islam and ecology and Islamic environmentalism. Also, I reviewed the research data related to the main problems, transcribe the

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[6] I explore the chronological emergence of FNKSDA in more detail in my graduate thesis, *Progressive Muslim Environmentalism: A Study of the Nahdliyyin Front for Sovereignty of Natural Resources* (Almujaddidy, 2019).

interviews, and described specifically the selected research theme using the theoretical framework to measure the appropriateness of the data and then structure it.

During my observations, one of my main sources was the leading intellectual of the movement, Muhammad Al-Fayyadl. Al-Fayyadl served as the national committee coordinator from 2016 to 2018. That is why I explore more of his writings compared to others.[7] He is also the leading intellectual of the Islamic Left in Indonesia who tries to integrate Marxism and traditional *fiqh*.[8]

Before discussing FNKSDA, I shall provide a little more background on the agrarian-environmental issues as the context of its emergence and continuing advocacies.

Agrarian Conflicts and Muslim Environmentalism

Agrarian or land conflict is a clear reflection of the dark side of the Indonesian developmentalist project. The so-called modern development has created frequent and serious conflicts, many of which were violent, between the government and the local people, particularly farmers. In 2017, when this study was conducted, there were as many as 659 agrarian conflicts in a year, or two conflicts a day (Apinino, 2017), affecting 520,491.87 hectares of land, and 652,783 households (Setyawan, 2018). Yet there was no clear government commitment to solve the problem. Ardiansyah (2014) suggested that during the electoral campaign, almost none of the legislative candidates addressed environmental issues, and only seven percent had a degree of knowledge about environmental problems. Despite the national spatial plan for Indonesia's land area designated as protected and allocated for cultivation areas, such productive land for food was converted into an integrated infrastructure and industrial area, manufacturing production space, and extractive industrial interest (Setyawan, 2018).

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[7] It is noteworthy that most of the FNKSDA members I interviewed directed me to Al-Fayyadl when I asked about the theological bases of the movement. As a sign of his breadth of knowledge, he connected the case of NYIA with the case of Notre Dame des Landes in France, which eventually won the battle over the eviction for the airport project in 2018, after 50 years of struggle.

[8] For more recent discussion regarding Al-Fayyadl's thought and influences, see French (2020).

Agrarian conflicts also contributed to 1030 alleged human rights violations as reported to the National Human Rights Commission (Chotimah, 2017), with Java contributing the most in the region (Apinino, 2017). In 2015 an activist named Salim Kancil was murdered by a group of people for protesting against invasive sand mining in his village in Lumajang (Boediwardhana, 2015). In 2017 Yu Patmi, a member of "Kartini Kendeng" who fought against the installment of a cement factory in Rembang for ten years, also died after spending days protesting by cementing her foot in concrete blocks in front of the Presidential Palace in Jakarta (The Jakarta Post, 2017). In the same year, an activist from Banyuwangi, Heri Budiawan, popularly known as Budi Pego, was sentenced to 10 months in prison for allegedly propagating communist ideology during a protest against the gold mining project in Tumpang Pitu (Ompusunggu & Boediwardhana, 2018).

The most recent report shows that, even in the time of the pandemic outbreak, the escalation of land conflicts continued to cause the deaths of local protesters while in friction with the police apparatus (Jong, 2020a). These cases illustrate that environmental problems are closely related to social justice and human rights issues. In terms of response to the problems, there is an observation of the convergence and mutual influences of agrarian and environmental movements in Indonesia (Peluso et al., 2008).

Departing from these empirical cases, the larger question is: what is the role of Islam in Indonesia, as a majority Muslim country, in addressing environmental issues? To what extent has Islam been effective in tackling environmental problems? Have the issues been a priority for the Muslims? In Indonesia, religion played an important role in shaping the public moral order (Bagir, 2015), since it is not a secular state and more like an imagined community bound by a shared "godly nationalism" (Menchik, 2014). Yet, most of the dominant Islamic discourse in public and everyday politics are related to identity politics and minority rights instead of environmental concern (Dewayanti & Saat, 2020). This is not only in Indonesia, but also in contemporary Islamic thought where ecology "does not occupy an important place" compared to issues such as radicalism, terrorism, human rights, and gender equality (Bagir & Martiam, 2016, p. 79). This is not, however, to deny that much work has been done by the community and religious organizations, locally initiated movement, and academic research related to ecological issues.

As I discussed elsewhere (Almujaddidy, 2019, pp. 24–40), however, most scholarly works and academic concern on Islam and the environment in Indonesia have focused on the issue of eco-*pesantren* and environmental education as well as government initiatives, with an emphasis on normative values of how Islam should deal with environmental problems. Questions concerning concrete social problems, relations of power, and political contestation of situated contexts are rarely addressed. Meanwhile, studies on practices which focused on specific groups and organizations mostly suggested technical solutions with the conservation-based approach. Yet, agrarian and land conflicts and socially engaged activism are less studied.

It has been noted that state development projects often contradict the environmental protection agenda (Pratisti & Wibawa, 2017, p. 174). Scholars found that government development projects which depend on the exploitation of natural resources become the major cause of environmental destruction (Ardiansyah, 2014; Sunaryo, 1992). Though governments engage religious organizations in their environmental agenda, religious leaders have rarely shown a critical attitude toward the government's harmful activities to the environment in the name of development. The approach based on Islamic principles has also been ineffective and more like "a toothless tiger" when it comes to challenging the state development agenda based on natural resources extraction (Grossmann, 2019). Most recent studies also show that the use of religion through issuance of *fatwas* and theological arguments have many limitations related to environmentalism that do not enable concrete changes. A top-down and theological approach, as it suggests, does not resonate on the ground and has no effect on the day to day lives of the people, it ends up as merely theologizing rather than addressing the issue (Dewayanti & Saat, 2020). At this point, there might be a gap between what should be (norms) and what happens (facts) regarding environmental problems.

This gap has led to the emergence of some organic religious environmental movements at the grassroots level, including FNKSDA, the subject of this chapter. FNKSDA initially emerged a response to its main institutional body, Nahdlatul Ulama (henceforth, NU). FNKSDA felt that NU was not taking environmental issues seriously, especially those related to agrarian conflicts, even though many of the victims of such conflicts were marginalized *nahdliyin* (member of NU).[9] They even found that some of the NU elites were

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[9] FNKSDA puts *Nahdliyin* after its organization name to represents the grassroots or civil society by which they distinguished themselves from the elites in the central board of NU.

involved in supporting the oligarchs in several agrarian conflicts (Almujaddidy, 2019).

NU, alongside Muhammadiyah, is one of the largest Islamic civil organizations in Indonesia. Claiming its membership to be more than 50 million, it is perhaps the largest in the world. The roles of NU and Muhammadiyah are very important in directing certain political narratives. They are also part of the MUI, which has the power to issue religious *fatwas*, including ones about the environment. Yet their narratives have been considered disconnected from local communities. Moreover, Ma'ruf, the former chairman of the MUI, ulama of NU, and now Jokowi's vice president, has developed policies related to environmental issues and the development agenda that are in diametrical opposition with many environmental movements in Indonesia. It was during the Jokowi's administration where environmental damage and agrarian conflicts were increasing. Ma'ruf's agenda on agrarian reforms are considered by many to only facilitate the land grabbers and oligarch. Most recently, his policies on Omnibus Law, which incited mass demonstrations across the archipelago during the pandemic lockdown, also have the potential to damage the environment and perpetuate the oligarchs (Bisset et al., 2020; Hariandja, 2020; Jong, 2020b).

FNKSDA is not an official/structural part of NU, but acknowledges its cultural affiliation with NU, while at the same time remains independent and critical of NU. While mainstream organizations focus on issuing fatwas and establishing institutions, FNKSDA put their concerns on power relations between the state, corporations, and local farmers. They also focus on the impact of capitalism and have declared "Jihad Against Capitalism" as their main agenda, connecting it with the NU fatwas against colonialism and NU national hero, Hasyim Asy'ari, with extractive capitalism interpreted as a new form of colonialism (Almujaddidy, 2019, p. 146). They utilized the network of *pesantren* by establishing *Pesantren Agraria* (a course practiced at every local branch) to engage local people in critical eco-theology discourse. Social media is also used to expand their discourse or to campaign social justice issues and environmental rights, and mobilize the masses to get involved in certain advocacy and solidarity.

Whether FNKSDA was able to facilitate concrete and systemic changes remains to be tested. My focus in this article is to examine how FNKSDA constructs their eco-theology and ethics in line with the demands of the current ecological crisis. FNKSDA has a distinctive characteristic compared

to the mainstream environmental movement, particularly their attention to social justice and inequality, as well as extractive capitalism that makes them integrate Islamic legal thought with Marxist epistemology. It is in this sense that I suggest identifying FNSKDA as a progressive environmental justice movement.

Theoretical Grounds: Progressive Muslim Environmentalism

In the discursive framework of Islam and ecology, contemporary Muslim concern about the Islamic understanding of nature has been dominated by theological discourse through legal analysis such as *fiqh* (Islamic Jurisprudence, or legal thought on sharia) and *sharia* (Islamic law). Questions on how humans perceived, relate, and interact with nature and the environment becomes the central issue. Concepts such as *khalifah* (vicegerency), *tawhid* (divine unity), *mizan* (balance) (Abdullah & Mubarak, 2010; Al-Damkhi, 2008; Foltz, 2003; Izzi Dien, 2000; Khalid, 2002; Mohamed, 2012; Nasr, 2003), *fitra* (primordial nature) (Chishti, 2003), *ihsan* (good deeds) (Said & Funk, 2003), *insan al-kamil* (perfect man with divine presence) (Afrasiabi, 2003), and *taqwa* (piety) (Llewellyn, 2003) are examined with reference to canonical source of Qur'an and Hadith. Such theological grounds imply the legacy of the classical approach that can be traced back to earlier scholars such as Seyyed Hossein Nasr, where questions about the domination of humans against nature are raised.

In the Indonesian context, theological discourse on ecology also dominates the narratives of environmental concern. Studies on eco-*pesantren* and the roles of Islamic leaders (*ulama* or *kiais)* in raising awareness through Islamic teachings play a major role (Laarse, 2016; Mangunjaya, 2011, 2014; Mangunjaya & McKay, 2012; Schwencke, 2012). Specific issues regarding the roles of Muhammadiyah and NU were also recognized by some scholars (Alkatiri, 2015; Amri, 2013; Aoki, 2015). Both internal organizations of NU (Muhammad et al., 2006) and Muhammadiyah (Majelis Lingkungan Hidup Muhammadiyah, 2011) conducted studies that become references for their follower regarding the institutions' attitudes on environmental problems. There is also interest in linking Islamic understanding of nature with modern science and attention to living traditions such as indigenous practices (Johnstone, 2010; Maarif, 2012, 2015).

However, there is little appraisal of the local manifestations that engaged with power relations and political dimensions in these discourses. It is hoped that this study of FNKSDA both contributes to studies on certain practices and begins to close the theoretical gap. As scholars suggested, studies on practice are important in order to see the way of being a Muslim without being trapped in an essentialist view of what is Islamic (Bagir & Martiam, 2016, p. 85). Also, when examining the practices of the environmental movement, a study should consider the process of retrieval, reevaluation, and reconstruction of religious teachings (Jenkins et al., 2016). It is important then to define in the beginning what is meant by religion and ecology to clarify the logical contexts since the experiences of religion and ecology or environment are grounded in and perhaps shaped by specific contexts (Bauman et al., 2011). Thus, when I consider the notion of Islam or Muslim and ecology or environment, I realize that the terms are dynamic, relational, and a matter of perspective and social situatedness.

Here, I define FNKSDA as progressive Muslim environmentalism. My theoretical grounds to label it as such lay on three important points. *First*, their affiliation with cultural NU, as a traditionalist Muslim organization. *Second*, the integration of Marxist analysis within traditional theology and Islamic jurisprudence. *Third*, their focus on agrarian issues, peasant advocacy, and social justice.[10] Here, progressive can mean the way they are being a Muslim (defining their religiosity). That is, Islamically motivated environmental activism considers Islamic knowledge not as a finished product, but an ongoing debate that is bound to be a work in progress. The ethical-morality of Islamic environmental understanding becomes the discursive practice that transcends rational reasoning. The gap that existed between Islam as an inherited tradition and the present manifestation of ecological problems is addressed through the exercise of *fiqh* based on the higher objective of Islamic law (*maqāṣid al-sharī'a*), without overlooking the fact that the exercise is partly defined by political interests. Considering this, I use ecology as "an ethical worldview about appropriate human relations to their environment" and "a political movement for adaptive social change" (Jenkins, 2017, p. 28).

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[10] My more extensive argument for calling FNKSDA progressive can be found in my graduate thesis, *Progressive Muslim Environmentalism: A Study of the Nahdliyyin Front for Sovereignty of Natural Resources* (Almujaddidy, 2019).

Eco-Justice Ethics: Engaging Marxism to Traditional Islamic Teachings

The major point of departure of Islamic eco-theology is the examination of the relationships between humans, God, and nature. Scholars mostly begin their analysis by reexamining the ontological positions of humans and the implications of current environmental problems. The concepts of *khalifah* (stewardship/vicegerency), *tawheed* (divine unity, God-centered), and *mizan* (principle of balanced) are the most discussed (Almujaddidy, 2019, p. 185). Since many Muslim scholars agree that Islam, like other monotheistic religions, is anthropocentric (Foltz, 2003, p. 257), the interpretation of *khalifah*, whether by anthropocentric means or not, is crucial (Mohamed, 2012, p. 69). In other words, the key point in constructing Muslim eco-theology is to redefine the roles of humans in the world.

In establishing FNKSDA's eco-theological grounds, Muhammad Al-Fayyadl, its national coordinator, draws on the traditional theological-legal doctrine of Nahdlatul Ulama, that is *ahlussunnah wal jama'ah* (adherents to the prophet and community, henceforth *aswaja*). However, since there is a recognition of capitalist relations and their effects on social inequality, exploitations, and environmental destruction, followed by the incapability of structural NU in overcoming these issues, Fayyadl makes a critical move by integrating Marxist social and political-economic analysis into the traditional theological mode of reasoning. While acknowledging the ontological incompatibility of Marxism and Islam, Fayyadl contends that it is necessary to use Marxism as an epistemological tool to understand the nature of capitalism. Fayyadl also emphasizes the contextual interpretation of Islamic law to understand the logic of the capitalist system and changes in the mode of production. Because what is at stake for Muslims today, for him, is to address the socio-ecological crisis.

Fayyadl begins by examining the problems of social welfare (*maṣlaḥa*), between its worldly orientation (*maṣlaḥa fi al-dunya*) and heavenly orientation (*maṣlaḥa fi al-akhirat*), that both must be balanced (*mizan*) by the Islamic principles of basic rights (*al-huquq al-adamy*). He argues that individual piety and rights are not separate from social piety and rights. If the former is for individual achievement of worship (*ibadatullah*), the latter is for preserving the earth (*'imaratul ardhi*) (Almujaddidy, 2019, pp. 200–205). The point is that religious life cannot be separated from social life, since both are the prerequisite for socio-ecological justice and cosmic balance. Social ecology means that conservation of nature is inseparable from human beings'

well-being. If one destroys nature, whether directly or indirectly, they are automatically destroying human beings. This is what happens in most cases of land conflict.

Fayyadl also identifies the inability of structural NU to address environmental concern and social justice as the result of its tolerance of injustice. There are three important teachings on how Muslims should behave following *aswaja*. First, moderation against the right-left political spectrum (*tawasuth*). Second, balance in rational and textual inference as a measure for justice (*tawazun*). And third, consistency in practice (*i'tidal*) (Almujaddidy, 2019, p. 206). *Aswaja*, according to Fayyadl, should not be used as a shield by NU to avoid fighting corporations and industries that damage the environment and the people. He sees that "many people are misguided by the assumptions that NU should not be too extreme and critical of the government because they are tolerant. If it is, they will allege NU as leftist, communist, and so on" (Almujaddidy, 2019, p. 208).

Fayyadl argues that the teachings of *aswaja* are insufficient without praxis. Here, he constructs basic axiological principles to these traditional Islamic teachings. First, *tawasuth* as anti-fanatism, critical, and democratic. Second, *tawazun* as counter-power and co-existence in a struggle, and *i'tidal* as consistency and militancy in holding the principle of justice. This will reflect the new understanding of the concept of *khalifah* characterized by progressive faith (*al-iman at-taqaddumi*) (Almujaddidy, 2019, pp. 206–207). Progressive faith does not distinguish between religious understanding and ethics of religious militancy as manifested in political involvement in efforts to change an unequal and unjust society. Only through this understanding will the concept of rights for human and fellow beings be achieved (*al-huquq al-adamy*). While giving an example, he said:

> if there is a capitalist who says that they also have the rights to invest, then what rights do you see first? If it is destructive, then it is not a right, but a mode. There are no rights that are destructive. (Almujaddidy, 2019, p. 208)

After building the basis of FNKSDA eco-theology, how do Fayyadl and other members articulate those teachings to address concrete social-environmental problems in particular cases? While leading the mobilization and advocacy in certain land conflict cases, Fayyadl frequently employs Marxist political-economic analysis to address the problem based on the context they faced. His main methodology in formulating Islamic legal responses (*istinbatul ahkam*)

to all those issues always involves references to the Qur'an and simultaneously integrates traditional *fiqh* and Marxism This methodology aims to achieve higher objectives of sharia (*maqāṣid al-sharīʿa*), namely the protection of life, intellect, faith, progeny, and property. This will result in the ideal management of natural resources that align with popular sovereignty.

Below I analyze the implementation of that methodology in five thematic issues: (i) mining, (ii) collective access and common ownership, (iii) farmer and means of production, (iv) planting as obligatory in the current ecological crisis, and (v) climate change.

The first issue is mining (*ma'adin*). Fayyadl acknowledges that in *Shāfiʿī* legal school (which is dominant in Indonesia) the issue of mining is discussed. He argues, however, that old-fashioned mining is different from modern techniques. Old-fashioned mining is very time consuming, labor intensive, and did not cause as much destructive implications towards nature. If scholars interpret the *Shāfiʿī fiqh* on mining literally today, it means that they allow the destructive exploitation of nature. In his advocacy against cement mining in the Kendeng mountains in Central Java, Fayyadl contends three important points. First, the utilization of mining is not fully owned by the state (*al-dawlah*), but is half-shared with corporations. Second, this type of operation contradicts the Islamic principle of mining. It has destructive implications because the mining location is in protected areas (*hima'*). Third, it violates all types of contracts/agreements between government and corporations as understood in Islamic jurisprudence, since the land in question is not unused/dead (*al-mawat*), and the ownership of the land by the corporations are not for public good.[11]

Should Muslims resist that kind of mining practice? Fayyadl argues, when violence and forced dispossession is operating, it is already contrary to the rules of *fiqh*. Further, since mining is not based on social welfare, particularly for the local people who are the most affected, then it is obligatory to oppose the mining. By referring to the traditional *fiqh*, Fayyadl contends, "if there is something permitted (*halal*) and the forbidden (*haram*) gathered, then what should be taken out is the forbidden (*haram*)". This also applies to the case of a gold mining project in Banyuwangi. While delivering public sermons, he invites the audience to resist any destructive practice of mining in order to

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[11] A fuller discussion of Fayyadl's argument requires delving into very technical *fiqh* argumentations. This is discussed in the author's master's thesis (Almujaddidy, 2019).

preserve the environment as the responsibility of *khalifah*. When some utilize nature beyond limits (*ifsad*) and waste the natural wealth (*israf*), then activists should stand opposed by defending the environment (*islah*) as a form of repairing damage from the threat of destruction by national and multinational corporations (Almujaddidy, 2019, pp. 257–258).

The second issue is the commons, which, like its original English meaning, indicates "common lands" used by the villagers to access the use and rights of natural resources (García López et al., 2015, p. 84). Scholars have conceptualized the Islamic perspective of the commons as interpreted through Islamic tradition (Johnston, 2014, p. 97). The principles of Islamic commons are believed to be the "third way" resting somewhere between laissez-faire capitalism and Marxist socialism (Ammar, 2004, p. 289), emphasizing justice-oriented Islamic economic and social doctrine that opposes "greedy, self-interested, opportunistic and exploitative behaviors" (Vincenti, 2017, p. 189).

In the modern context, the commons are gradually being privatized (enclosed) with the development of the so-called individual property rights (García López et al., 2015, p. 85). This includes the practice of making natural resources a commodity that leads to the moral justification for private ownership, where "natural right possessed by any potential owner who can attach the value to natural elements to satisfy individual human needs and desires" (Vincenti, 2017, p. 160). Consequently, when the natural resources are defined as a mere commodity, human will neglect the ecological value of resources and the interconnectedness of the ecosystem (Berkes & Farvar, 1989, p. 20).

Here, Fayyadl examines three hadith regarding primary natural resources (Almujaddidy, 2019, p. 231). According to him, this hadith textually prohibits private ownership that is important for human basic biological needs, namely the water (including sea waters and rivers), the grassland (including jungle forest), and the fire (a fossil energy source that can produce electrical energy). These three are primary sources of life energy, both for direct consumption and another prerequisite for life. Hence, the prohibition of private ownership is based on two principles. First, one should not take price and profit out of these primary natural resources, but have equal rights to take what is needed without owning it. Second, these primary resources are open access for collective needs (*syuraka*) and, hence, should not be privatized.

The third issue centers on farmers and means of production. Fayyadl employs Marx's theory on expropriations, which is the separation of producer (farmer) from the means of production (agricultural equipment). This argument depicts conditions of land conflict in Java, where most of the affected communities were farmers and fisherman, and creates the legitimacy to protect them. When farmers faced poverty and destitution, it is obligatory to defend them (Almujaddidy, 2019, p. 236). On another occasion, Fayyadl also examined the Qur'an through a historical materialist approach and makes a special position of farmer and fisherman as the actual representation of *khalifah*. There are eighteen verses about agricultural activities and twelve verses about sea activities. These verses are examples of cases in the Qur'an on expropriations and capitalistic relations that involves changes in mode and instrument of productions (Almujaddidy, 2019, pp. 209–211).

The fourth issue is the role of mandatory planting of trees in sustaining the earth and ecosystems. Al-Fayyadl examined the hadith from companion Anas bin Malik that explains the importance of planting, or what we know today as "greening". According to Malik, the hadith encouraged Muslims to plant trees or any plants to prosper the earth and the surrounding environment or ecosystem (*'imaratul ardhi*). Islam acknowledges open ecosystems where humans and other living things help each other meet their needs. Humans, animals, and plants are not distinguished because each carries an equal role in ecosystem sustainability. The text of the hadith put humans among birds and livestock, between "air animals" and "land animals" that is, humans are "in the middle" of the ecosystem, not superior or inferior. Damaging the environment equals destroying human life itself (Almujaddidy, 2019, pp. 248–250).

Fayyadl argues that the Islamic model of ecosystem certainly forbids privatization or, at the very least, does not fit into the private ecosystem in the style of capitalism which counts the living space as property and commodity, thus separating humans from animals, plants, and fellow humans. In Islam, humans can have plants. However, the crops that they have are not fully owned but can be alms (*sadaqah jariyah*) for anyone who needs to enjoy them. Birds, livestock, or humans who accidentally eat from the "private" plants are not criminals. They are fellow-creatures whose needs must be appreciated. Here Islam advocates the spirit of sharing rather than the spirit of mastering and possessing (Almujaddidy, 2019, p. 249).

The fifth and final issue is climate change and extreme drought. Scholars found that most effects of climate change are caused by the expansion of global industrial production (Giddens, 2009, p. 21). In Indonesia, the change of land use and the clearing for agricultural purposes, including deforestation, forest fires, legal and illegal logging, are the most challenging issues faced by the government (Mangunjaya et al., 2010, p. 117). The impacts of climate change thus have transcended the boundaries of social, political, economic, and cultural aspects of life. Such conditions have a large capacity to produce economic loss, create conflicts, and change the demographic composition of the population in the affected regions (Amri, 2013, p. 75). In Southeast Asia, the most vulnerable groups to be threatened by such conditions are the poor who depend on agricultural sectors for their lives (Groff, 2017, p. 10).

Here, Fayyadl examines the hadith from Abu Huraira to respond to the climate change issue. The hadith is about a drought that will hit humans because the earth is unable to give growth to plant even when the rain falls many times. The narrator of the hadith, Imam Muslim, put this hadith in a chapter on "signs of doomsday and defamation". Fayyadl argues that instead of a natural disaster, there are social factors that cause such a crisis. First, the lack of trees affects water absorptions because of exploitation. Second, the excessive use of water for industrial interests or privatizations depletes groundwater reserves. Third, the lack of water sources due to the circulation of disturbed water (Almujaddidy, 2019, pp. 245–246).

These crises, Fayyadl contends, are mostly caused by the practice of exploitations such as fracking in the geothermal industry, destruction of karst[12] in mining, the use of chemical fertilizers in agriculture, and the clearing of mountains through deforestations. Islam teaches Muslims to pray for the rain (*istisqa'*) when drought occurs in order to receive a blessing (*rahmah*) from God in the form of rain. Yet, in the current ecological crisis, those blessings will turn to disasters (*bala'*) such as floods because there is no balance between the rainwater and the trees. This is another sign, for Fayyadl and FNKSDA, to defend the earth from exploitation (Almujaddidy, 2019, pp. 246–247).

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[12] An irregular limestone region with sinkholes, underground streams, and caverns (Merriam-Webster, n.d.). According to Ministry of Environment and Forestry, the potential area of Indonesia's karst landscape is 154,000 km2, which is equivalent to 0.08% of Indonesia's land area. Also see Shagir and Ismail (n.d.).

Ultimately, how should Muslims manage their natural resources? Here Fayyadl, along with other FNKSDA activists, proposed natural resources management for the principle of popular sovereignty. The meaning of sovereignty, according to them, should refer to article 1 Paragraph 2 of the 1945 Indonesian constitution which states that "sovereignty is in the hands of the people and carried out according to the constitution" and the last pillar of the ideological basis of Pancasila, "social justice for the people of Indonesia" (Al-Fayyadl, 2016).[13] Hence, the scope of sovereignty here is not limited to only territorial sovereignty, but also includes political, economic, law, natural environment, and others which cannot be dictated by foreign powers, corporations, or private companies. Instead, the management of natural resources, as FNKSDA contends, should be governed fully by the state according to the Constitution and Pancasila (Almujaddidy, 2019, pp. 262–264).

While engaging constitutions, the 1960 Basic Agrarian Law, and the result of NU's forum of legal deliberation (*bahtsul masa'il*), FNKSDA conceptualizes the sovereignty of natural resources with three basic principles. First, collective ownership (*jama'iy*) applies to natural resources such as to water sources (*al-maa'*), mining (*ma'dan*), forest (*al-kila'*), and energy (*an-nar*). The second is management values based on the concept of cooperation (*syirkah*). That is the managing of natural resources without any competition and privileges for certain people or parties. Third, values based on social welfare (*maṣaliḥ al-ammah*) (Almujaddidy, 2019, pp. 265–269).

Concluding Remarks

FNKSDA opens up a new discursive space in Islam and ecology, and the model of Islamic environmentalism by engaging Marxist analysis in Islamic traditional theological-legal deliberation. While Marxism remains a sensitive ideology for Indonesian public, the decision to remain grounded in traditional Islamic theology and legal thought is crucial to sustaining the movement. FNKSDA now has 16 branches across the archipelago, all of which organizes *Pesantren Agraria* to engage local people and young cadres in eco-theology discourse and Western critical theories. This is not new in the tradition of NU since their young intellectual cadre is considered progressive in NU scholarship. Yet, their voices on environmental concerns are original and

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[13] Thanks to In'amul Mushoffa who made this document available.

crucial to address current social-environmental problems, which are faced by not only Indonesians but people around the world.

The ability of FNKSDA to engage political and systemic analysis of the problem, allying with other movements, as well as mobilizing the masses to be involved in direct advocacy is what makes them distinct from other environmental movements. They are not only spreading awareness to the public, but engage people in direct activism. However, their ability to bring real systemic changes remains wanting. Since the movement is relatively new, FNSDKA should consider involving more of scientific analysis and technical solutions to leave more impact in addressing the problem. While, indeed, religion plays a key role in directing the public discourse in Indonesia, the possibility of "theologizing the problems" should be avoided.

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CHAPTER 2

RECLAIMING THE SACRED:
THE THEOLOGICAL AND ENVIRONMENTAL ARGUMENTS IN THE DEBATES OVER THE BENOA BAY RECLAMATION PROJECT

Daud Sihombing

Abstract

Tirta Wahana Bali International, a private company, initiated the reclamation of the area of Benoa Bay, Bali to be developed for tourism and educational, economic, and religious activities. In 2014 the former president of Indonesia, Susilo Bambang Yudhoyono, issued a policy which stated that the region had the potential to create up to 700 hectares of reclaimed land. This project has been challenged by the general population and non-governmental, including religious, groups in Bali. The debates over this project used economic, political, environmental, and theological arguments. This paper focuses on how theological argumentation, in this case, the discourse of sacred sites, is constructed by the Hindu groups, the government, and environmentalist groups, making use of reference to international norms on sacred sites. This chapter shows the significance and effectiveness of theological arguments in addressing "secular" environmental issues of reclamation in Indonesia.

Keywords: Balinese Hinduism, sacred sites, theological argumentation, religion and environmentalism, reclamation

Introduction

In 2014, the former president Susilo Bambang Yudhoyono issued a policy to change the status of Benoa Bay as conservational area and stated the region of Benoa Bay had the potential to be developed, creating up to 700 hectares of reclaimed land. That decision was triggered by the initiative of an investor, Tirta Wahana Bali International, which argued that the reclaimed area of Benoa Bay will benefit the people when it is developed for tourism and as a site of educational, economic, and religious activities.

The project has been challenged by local people as well as non-governmental groups in Bali. In the beginning, the debates over this proposed reclamation focused on the issues of economy, politics, and environment. In the middle of 2015, the debate started to make use of additional theological argumentation, referring to the discourse of Balinese Hindu sacred sites.

Research conducted by the civil society organisation named ForBALI lists at least 70 sacred sites in the area of Benoa Bay that are recognized by the local people. In 2016, Parisada Hindu Dharma Indonesia, the Hindu supreme council in Indonesia, issued a religious edict stating that the area of Benoa Bay is sacred based on Balinese Hindu doctrine, so it must be protected. It then disseminated that edict to the government and stakeholders asking them to review the reclamation project. On October 4, 2019, the Ministry of Maritime Affairs and Fisheries issued a regulation stating that the area of Benoa Bay is categorized as a conservation area. This decision was based on ecological and social aspects, referring to the Balinese people's recognition of Benoa Bay as a sacred place.

This case shows how the theological values of Balinese Hinduism are manifested in official and public regulations. The term *sacred site* is constructed in the context of Balinese Hinduism both theologically, through an edict, and administratively, through legal regulations. This case also shows how theological argumentation, in this context the idea of sacred sites, is implemented to support an environmental movement to reject the proposed reclamation.

How can one understand the religious argumentation for a supposedly "secular" issue such as the environment? The Indonesian state is secular, in the sense that it is not based on a particular religion. Yet, religion plays roles in the public sphere. In the recent literature on secularism, religious reason is not necessarily regarded as having no place in public issues, but there are debates about how it may figure in the civic discourse. The political philosopher John Rawls (1999) acknowledges the place of religion but argues that, in a heterogenous community, comprehensive doctrines (which includes religion) should not be used as a ground for public reasoning due to the fact that exclusive discourse is accepted by particular groups, not all citizens. Comprehensive doctrine should be, in a sense, translated into public reason to make it acceptable and understandable by fellow citizens who may not share the doctrine. According to Habermas (2011), again, without denying the place for religious aspiration in the public, secular and religious citizens should

have a common form of reasoning in the public affairs. For both Rawls and Habermas, there is still a strict separation of religious and public reasons in the public debates or law-making. Abdullahi An-Na'im's (2008) concept of civic reason gives a broader space for religious values to appear in the public debates insofar as they are constrained by constitutionalism, citizenship and human rights. Further, Bagir and Dwipayana (2011), speaking in the Indonesian context, sees that, in a pluralist polity, public policy could provide a space for citizens to express their beliefs and values.

In this chapter I will show that the issue is not simply about the admissibility of religious reason, but involves more dimensions and more complex reasoning. First of all, the religious reason involves the construction of the notion of sacredness in arguing against a public policy. Furthermore, it does not stand on its own but interacts with other reasons, especially the environmentalist argumentation. In the case of Benoa Bay reclamation, the Balinese people use many arguments, theological argumentation being one of them, in rejecting the project, and the Hindu supreme council in Indonesia issued an edict requesting the recognition of the sacredness of Benoa Bay, as the ground for rejecting the reclamation project.

In the end, it is difficult to deny that the religious reason for the sacredness of Benoa Bay, in combination with many non-religious reasons, contribute to the decision to stop the reclamation. This case goes further than simply showing that religious values are implemented when delivering opinion in public debates. The theological aspects of Balinese Hinduism are actually also manifested in official regulations as the term "sacred sites" is recognized and regulated by the government.

In the remaining portion of this chapter I will first discuss the case of the Benoa Blay reclamation project, followed by an explanation about the many arguments used by its opponents. The section that follows shows the significance of the religious reason and its interaction with the local as well as international environmentalist arguments.

I undertook field research in Bali over several months in the years 2015-2016, observing how the controversy around the Benoa Bay project played out in public and interviewing members of different groups involved in it. I also examine legal documents produced by the local and national governments, research results and advocacy by the NGOs involved, and the edicts issued by the religious council Parisada. The main output of this research was submitted

for a Master's thesis at Universitas Gadjah Mada's M.A. Program in Religious and Cross-cultural studies in 2016. For this chapter I have added updates from recent developments through 2019.

Reclamation of Benoa Bay

The area of Banoa Bay to be reclaimed is located in the City of Denpasar and the District of Badung, Bali, surrounded by 27 villages, 15 of which are customary villages.[1] Economically speaking, the location of Benoa Bay is strategic because it is surrounded by economic development based on tourism, trade, and service in tourist-packed places such as Sanur, Kuta, and Nusa Dua. It is also supported by good infrastructure, as it is on the way from the main Ngurah Rai International Airport and Benoa International Harbor (Sudiarta et al., 2013, p. 5). The total area of Benoa Bay is 1,988.1 hectares that can be classified into three zones: (1) the zone between the outer part of the bay from the quay of the harbor and Tanjung Benoa, 1,688.3 hectares, (2) the zone between the harbor and Serangan Island, 231.3 hectares, and (3) the zone between Suwung Kangin and Serangan Island, 88.5 hectares (ForBALI, n.d.-a).

Tirta Wahana Bali International (TWBI) started to propose the reclamation between September and December 2012. On December 26, 2012, the governor of Bali issued a regulation (No. 2138/02-C/HK/2012) giving permission for TWBI to reclaim 838 hectares of the area of Benoa Bay. On August 16, 2013, the governor issued another regulation (No. 1727/01-B/HK/2013), similar to the previous regulation (ForBALI, n.d.-a). These regulations were actually in opposition to the 2011 Presidential Regulation number 45, which categorized the area of Benoa Bay as the conservation area. In 2014, by issuing the President Regulation number 51 of 2014, the former President Susilo Bambang Yudhoyono changed the status of Benoa Bay from conservation area to potential development area to be developed or reclaimed up to 700 hectares as stated in the Article 101A (d.6). That is a bit narrower

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[1] Following the democratization that started in 1998, there was a policy of decentralization that gives more authority to local governments (at the level of provinces and districts/cities). The local government of Bali divides the villages in Bali into official villages and customary villages. Official village refers to a village that is formed by the central government, meanwhile a customary village refers to the village that was already established before the independence of Indonesia and relates to the Balinese history. Each customary village has a customary law or regulation and *pura* (temple).

than the permission issued by the governor of Bali. The final process for permission is to get the environmental impact analysis that will be issued by the Ministry of Environment and Forestry (Tempo, 2016).

TWBI stated that the additional area of Benoa Bay will be used for tourism development and the center of trade, educational and religious activities. But opponents of TWBI claimed that the reclamation will cause floods (Sudiarta et al., 2013, p. 2) and serious environmental destruction, particularly the destruction of mangroves, coral reefs, and abrasion (ForBALI, n.d.-a). In addition to political, economic and environmental issues, another argument was later raised, centering on the Hindu theological conception of sacred sites. Local people recognize that Benoa Bay is sacred, so it must be protected. This was supported by the influential civil society organization named ForBALI, as well as the Indonesian Hindu religious council called Parisada Hindu Dharma.

The Construction of Sacred Sites

Generally sacred sites refer to an area that is recognized as having sacred value due to its significant religious role and its relationship with a particular community in the area. Cohen (1987), in his research on sacred sites of Native American denotes the term of sacred sites to a specific area that is important for life, government, culture, and religion as well. Yablon (2004) uses the term for an area that has spiritual value for the Native American. Fielder (1994) also emphasizes the significance of sacred sites in his study on people of Nyungah in Australia.

In the context of Balinese Hinduism, the closeness between Balinese Hindu with the area where they live oftentimes make some places sacred. The sacred nature is constructed by the existence of that place as a house of worship, a place to conduct a ritual, religious doctrine, oral story, and so forth. Thus, commonly, Balinese Hindu recognizes a mountain, hill, lake, spring, and so on as sacred sites. The construction of sacred sites is not constrained to the everyday life, but also relates to governmental regulations, theological values, environmentalism, and international consensus, each of which will be discussed below.

Governmental Regulation
The definition of sacred sites is used for the first time in an edict issued by the Parisada in 1994. In general, that edict states that a mountain, lake, *campuhan*

(the area where two or more rivers meet), beach, and sea are recognized to have sacred values (Parisada Hindu Dharma Indonesia, 1994). This edict also emphasizes the radius of the sacredness of the *pura* (temple) based on the categorization of the *pura*. The edict was adapted into at least three governmental regulations that relate to the issue of Benoa Bay reclamation.

These regulations include, first, the Regional Regulation of District of Badung (No. 26/2013) Art. 1 (31) which mentions that sacred sites are the area that is recognized as sacred by Hindu, including a mountain, lake, spring, *campuhan*, *loloan* (the area where river and sea meet), river, beach, and sea. This regulation also mentions the preservation of sacred sites as stated in Article 25. Points 3 to 5 of Article 26 state that *campuhan*, *loloan*, and beach in the area of District of Badung are categorized as sacred sites.

The second regulation is the Regional Regulation of Bali Province (No. 16/2009). According to this regulation, sacred sites are the area that are classified as sacred by Hindu, for example a mountain, hill, lake, spring, *campuhan*, sea, and beach. This regulation not only mentions the definition, preservation, and the criteria of sacred sites but also categorized sacred sites as vital area.

Lastly, Presidential Regulation (No. 45/2011) mentions that sacred sites are the areas that are recognized as having a sacred value by the Balinese Hindus, for example a mountain, lake, *campuhan*, beach, sea, and spring as stated in Article 1 (18). In 2014 the former President Susilo Bambang Yudhoyono revoked this regulation by issuing another Presidential Regulation (No. 51/2014), which did not change the definition of sacred sites, but changed the status of Benoa Bay from conservation to reclaimable.

The Parisada edict and the three governmental regulations are similar in stating that a beach, sea, and *campuhan* are categorized as sacred sites. As such, Benoa Bay should actually be automatically classified as a collection of sacred sites and must be protected or preserved because there are beachs, sea, and *campuhan* there. The permission to reclaim Benoa Bay shows that the regulations are not harmonized.

In the broader context, the adaptation by the government of an edict issued by a religious organization, may be seen, from the perspective of the non-governmental organization, as an attempt to "scale up". This process refers to the condition that dialogues that happen in the society are institutionalized

into public policy (Hefner, 2003). This institutionalization means that civil society has a space to participate in policy-making, as an element of democracy, and collaborate with the state to get their views recognized and institutionalized (Bagir & Dwipayana, 2011, p. 41) In the case of the Balinese Hindu sacred sites, the recognition is not only in the context of belief, but also manifested and implemented in governmental regulations. This recognition may be seen as a form of pluralist democracy, insofar as it does not discriminate against other groups of citizens who do not belong to the religious community.

Theological Values

The main, but not the only, actor here is the Parisada Hindu Dharma Indonesia, the Hindu religious council recognized by the government as representing Indonesian Hindus—at least a majority of them. In its history, the Parisada has worked with the government in reconstructing Balinese Hinduism in order to assemble a standardized notion of religion in Indonesia (Picard, 2011), and formulate the Balinese Hindu daily ritual (Lanus, 2014). As such, edicts issued by the Parisada are considered seriously by the government and may have the potential to influence governmental regulations.

But the specific examination on the sacredness of the Benoa Bay was pioneered by a civil organization named ForBALI. This organization made use of many types of arguments, coming from fields as varied as environmentalism, politics, economy, law, and also religion, in rejecting the proposed reclamation. Around October 2015, ForBALI claimed that Benoa Bay hosts at least 70 sacred sites consisting of 31 *pura*, 17 *loloan*, 2 *sawangan* (the deep *loloan*), 19 *muntig* (the area that surfaces when the water subsides), and one *lamun* (the group of sea plants). The research was conducted by examining papyrus from the 16th century and interviewing local religious leaders and people. Generally, the study emphasized the religious significance of the sites as places to perform Balinese Hindu rituals.

Local people also believe in the existence of Pura Karang Tengah, a mystical *pura* located within the Benoa Bay. They recognize Ida Sang Hyang Baruna as the manifestation of God who resides on that *pura*. Mystical experience also contributes to constructing the sacred spaces in Benoa Bay. For example, local people believe that a long time ago there was a fisherman who was lost in the middle of the sea. Then he took an oath stating that if he could find way

to shore, he would build a *pura*. In the end, he found a way out and then built a *pura* named Pura Tengah Laut (which may be understood as "*Pura* in the ocean").

The sacredness of Benoa Bay also has a historical aspect, as referred to the history of Danghyang Nirartha, a religious figure who had a role in preserving the tradition of Hinduism and Buddhism in Bali. According to Niratha's writing entitled *Kakawin Añang Nirartha*, he mentions that while journeying in Bali he stayed in Benoa Bay and wrote of his amazement of Benoa Bay, Pudut Island, and Sakenan Island. This writing can be interpreted as a command to protect and preserve the beautifulness and sacredness of Benoa Bay.[2]

Meanwhile, the Parisada as the Hindu supreme council in Indonesia also has the same view. It claims that the Benoa Bay is a sacred site that can be classified into four categories: (1) sacred beach sites as the location of practicing a ritual, in this case *melasti* (a purification ceremony before *Nyepi*), (2.) *campuhan*, (3.) sacred sea sites as the location of practicing ritual, in this case *mulang pekelem* (ritual of offering, commonly in the sea or lake), and (4.) house of worship or *pura*.[3]

This claim is based on the examination by a team of nine Hindu religious experts created by the Parisada (called Tim 9 Pandita) after a congress on October 23-25, 2015. The team's objective was to investigate the proposed reclamation of Benoa Bay from the perspective of its status as a site of religious significance for Balinese Hindu practitioners. The result of the investigation was reported to the Sabha Pandita. Actually, the initiator of the discussion of the sacredness of Benoa Bay was Sabha Walaka, which has released its own report stating that Benoa Bay had sacred value. The report was based on research conducted by ForBALI. At that congress, the participants could not make a decision, so the Tim 9 Pandita was created.

An object, site, or place may be said to be sacred if it is thought to possess "particular power demanding respect, reverence, and ritual" (Askew, 2003, p. 64). This is shown by the research on Benoa Bay conducted by ForBALI and

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[2] https://budaya.wordpress.com/2016/02/01/benarkah-teluk-benoa-sebuah-kawasan-suci-edisi-revisi-dengan-peta-kawasan/ date of access April 19, 2016

[3] http://posbali.com/kawasan-teluk-benoa-ditata-sesuai-bhisama-keputusan-sabha-pandita-phdi-pusat/ date of access April 18, 2016

the edict issued by Parisada. Local people respect the sacredness of the spaces and conducting rituals in those places and this contributes to the labelling of a particular site as sacred.

This theological argumentation is used by both ForBALI and Parisada in rejecting the proposed reclamation. The difference is ForBALI uses this as an additional argument to its environmentalist, political, economic arguments, while the Parisada uses it as its single argumentation.

Environmentalism

The idea of sacred sites can be interpreted in various ways; one of them is from an environmental perspective. Gede Robi Supriyanto, a ForBALI activist, argues:

> I believe that what is meant by sacred sites is natural places that have to remain natural, and can't be changed, because those places have their own roles. Benoa Bay is a patch of four rivers. In the past the ancestors saw that you should not do anything to this place, which means it is sacred. Why are mountains sacred? Because they host forests which capture water and create springs, so forests must be protected. *Pura* is established on mountains to mark the sacred so that lay people understand this idea. The same with ocean. If Benoa Bay is reclaimed the water from the river will overflow and causes flood. (G. R. Supriyanto, personal communication, February 28, 2016).

Based on my field research, local people advance similar arguments. Most of them are young people who prefer to interpret the sites logically or using environmental rather than religious approach. But, as in the above quote, in general no specific differentiation is made; the religious and the environmental is combined and understood as interrelated. The main concern is the awareness in preserving environment.

In the Indonesian context, a similar situation can be found in the case of people of Mollo (East Nusa Tenggara) who recognize *fatukanaf* (granite) as sacred and preserve it. Based on the scientific approach, granite has an important role as a water absorber and a place where the spring is located (Maemunah, 2015, p. 28). Another case can be seen among diverse traditions such as in Maluku, Papua, or Bajo in the tradition of the absence in fishing (*sasi*) at certain periods that actually contributes in preserving environment (Baskara, 2016, p. 168).

There is an additional argument by the environmentalists related to Benoa Bay's significant roles in nature conservation. According to research conducted by the World Wide Fund for Nature and International Union for Conservation of Nature, the Bay has a role as a resting area and feeding ground for migratory birds from Australia to Siberia (Sudarmoko, personal communication, June 11, 2016). It is also a nursery ground, spawning ground, and feeding ground for fish (ForBALI, n.d.-b).

International Consensus

In the international context, the term "sacred site" is also recognized. At least there are two international consensuses about sacred sites, including its protection and the right for access, i.e. the United Nations Declaration on the Rights of Indigenous Peoples (2007) and Universal Code of Conduct on Holy Sites (One World in Dialogue et al., 2011). According to those two consensuses, in the context of reclamation of Benoa Bay, the sacredness of the Bay, including religious practices conducted there, should be preserved and the right of indigenous people to access it should also be protected. Points in the United Nations on the Rights of Indigenous Peoples have been used in rejecting the proposed reclamation through an online campaign.

The UN declaration document protects sacred sites as stated in Article 11, 12, and 25.[4] Article 11 (1) mentions that indigenous people have a right to practice and revitalize their cultural traditions and customs. Article 11 (2) mentions the redress that should be provided by the state through effective mechanisms to fulfil the rights of indigenous people. Article 12 (1) explicitly states that indigenous people have the right to practice and develop customs, and religious traditions and have access to the religious and cultural sites. Article 25 states that indigenous people have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources. Further, the government has a role to protect that right.

Although the Universal Code of Conduct on Holy Sites has potential to support the argument against the reclamation of Benoa Bay, it has not used in the campaign. Its first article, however, mentions that holy sites are understood as places of religious significance to particular religious communities. The term used in this consensus is "holy sites" but it has a similar meaning to

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[4] http://balebengong.net/lingkungan/2016/03/01/a-letter-from-bali-to-the-world.html date of access April 23, 2016

sacred sites. Article 9 states that the right to establish and maintain the sites shall be recognized as an integral part of the freedom of religion and belief.

The Significance of Theological Argumentation

The debates over the proposed reclamation deal with environmental, political, and economic argumentations are not only used by people who reject the proposed reclamation but also those who support it. This means that those argumentations are debatable and not final. It is here that the theological argumentation plays its role.

The theological argumentation refers to the discourse of *sacred sites*. This argument is significant because it is supported by a number of norms and institutions, and deployed by a variety of actors. The term carries theological weight because of the support issued by the Parisada, the Hindu religious council acknowledged by the state. The argumentation is deployed by the environmental activists in their campaign. What gives it an added significance is that the terms "sacred site" also appears in the two international documents endorsed by the UN. Lastly, as a matter of fact, the term has appeared in the three governmental regulations—at the level of district, province and national level (Presidential Regulation).

In a more recent development, on October 4, 2019, Susi Pudjiastuti, Minister of Maritime Affairs and Fisheries, issued a regulation (No. 46/KEPMEN-KP/2019) stating that the area of Benoa Bay is categorized as conservation area (Akbar, 2019). This official decision potentially ends the debates over the reclamation project. It can be interpreted as the rejection of the proposed project. The Director General of Sea Management of the Ministry of Maritime Affairs and Fisheries states that this regulation is based on the recognition of Benoa Bay as a sacred site (Akbar, 2019). This regulation is also a response to the official letter sent by the Governor of Bali regarding the proposal to establish Benoa Bay Maritime Conservation Area. I Wayan Koster, the Governor of Bali, states that the proposal is based on the public consultation on September 6, 2019 attended by experts, NGOs, stakeholders, Balinese Hindu leaders, and *bendesa* (the leaders of customary villages) (Aziz, 2019). Koster also argues that the designation of the area of Benoa Bay as sacred means that it shall not be used for economical purposes (KumparanBisnis, 2019a). It shows that theological argumentation have played a significant role in shaping public opinion.

In the bureaucratic context, the last thing to accomplish according to I Wayan Gendo Suardana, a member of ForBALI, is to revise the President Regulation number 51 of 2014. He thinks that the regulation issued by the Ministry of Maritime Affairs and Fisheries is an important asset needed to revise the presidential regulation (KumparanBisnis, 2019b). By revoking the presidential regulation, the status of Benoa Bay as conservation area will be recognized at the higher, presidential level.

Conclusion

Based on these statements, the sacredness of Benoa Bay as recognized by the Balinese people plays an important role in shaping public opinion and influencing the state in responding the reclamation debate. Local people of Bali, at the level of both elite and mass, use the discourse of sacred site to reject the reclamation project. Meanwhile, the state responds to this debate and uses theological argumentation as one of the considerations. It shows that theological argumentation has weight and may be used effectively for environmentalist objectives in the public debate in Indonesia and in Bali in particular.

The value of Balinese Hinduism in understanding sacred sites has been institutionalized in the edict issued by the Parisada. After that, the edict was manifested and implemented in official regulations of Balinese government. At this point, theological value has been scaled up to public law.

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CHAPTER 3

FROM DESTROYING TO REHABILITATING THE FOREST: UNDERSTANDING A CHANGE OF ATTITUDE TOWARD NATURE

Emanuel Gerrit Singgih, Rena Sesaria Yudhita, Gideon Hendro Buono, Sung Sabda Gumelar, Bil Clinton Sudirman

Abstract

In the discourse on Ecology and Religion it is important not to ignore the way people connect their belief in God with ecology and how they perceive the relationship among God, Nature and Human Beings. As for the theoretical framework, it is best to use Richard Evanoff's (2011) idea of Transactional Approach in Achieving Ecological Sustainability, Social Justice and Human Well-Being, where the one is not sacrificed for the interest of the other. Related to this framework is how to define the above relationship in a better way, to enable people to deal with problems of ecological destruction in Indonesia. Following Evanoff's insight, it is here proposed to reframe the relationship among God, Nature and Human Beings in a less hierarchical sequence, and more in a dialectical way, to overcome the antithesis between anthropocentric approaches ("shallow ecology") and cosmocentric/ecocentric approaches ("deep ecology") to ecology.

One way of reframing is to emphasize God's immanence in nature and human beings – panentheism rather than pantheism – but at the same time, giving room for the autonomy of each. A concrete example of this is offered from the context of Indonesia: how the people of Sendangbiru at South Malang, who previously were destroying the mangrove forest to produce, among other things, charcoal as their main source of income, are motivated by some of their own, who believe in the immanence of God, and have rehabilitated most of the former mangrove forest. They keep and take care of the forest, but at the same time, benefit from their participation in the local government's program of eco-tourism.

Introduction

The project of ecology-theology is one of the concerns of the Theological Faculty of UKDW (Universitas Kristen Duta Wacana, Eng: "Duta Wacana Christian University"), Yogyakarta, that is to heed the relatively new perspective on ecology in theological studies, and at the same time, looking at this perspective from the context of Indonesia, so that theology in Indonesia (at least in the churches which support UKDW) could retain its contextual character. The area of Sendangbiru, where the mangrove forest is being rehabilitated, is chosen for fieldwork for this ecological-theological project. Rehabilitation of nature is part of ecological concerns, and the term used for it is "restoration ecology" (van Wieren, 2013, pp. 3–6). The authors as a team, are grateful to Mr. Saptoyo, Miss Lia, Mr. Iswicahyo and the whole family of CMC (Clungup Mangrove Conservation) staff, for welcoming the team to CMC on three different occasions, and have spent many hours in conversation with the team. The team also benefitted from the hospitality of the two GKJW (Grejo Kristen Jawi Wetan, Eng: Christian Church of East Java) congregations close to the area, GKJW Tambakrejo and GKJW Sendangbiru, and their ministers, rev. Arivia and rev. Widi. Many thanks to the Dean of the Theological Faculty, UKDW, for supporting the authors during the period of study on Sendangbiru from the first semester 2017-2018 to the second semester 2018-2019.

Research Methodology

The authors opted for a Qualitative Research Approach, which hoped to bring to the surface, meanings and understandings of the people of Sendangbiru. The authors have made three field-trips and observations: on October 16-17, 2018, April 18-19, 2019 and May 30-June 1, 2019. Both individuals and groups were interviewed indirectly, by using the mode of conversation, which seems to be the best way of approaching the people in the country side of Java. It does not mean that quantity is not important. But the authors' interest is, first to look at how Christians of Sendangbiru could have a change of attitude, from regarding nature as having an instrumental value for human beings, to appreciate the intrinsic value of nature. The research-problem is: why do Christians, who inherited the concept of subduing nature from their forefathers, have this change of attitude? Second, how Christians, who form the minority, could inspire the majority in changing the old tradition regarding nature, in this case, the forest and the sea?

As there are several Qualitative Research Approaches, the team used "The Practical-Theological Spiral" by Frans Wijsen (2005), Professor of Missiology and Religious Studies at Radboud University, Nijmegen, The Netherlands. This approach is a variant of the Hermeneutical Circle, which consists of Description (what is happening?), Analysis (why is it happening?), Interpretation (what is the [theological] meaning?) and Action or Planning for Action (what can be done? what is the ideal situation?), following the experts of epistemology on how we come to understand the phenomenon outside ourselves. The phenomenon could be a written text, but also "texts", which is everything related to human beings, including natural surroundings. From prejudice (preliminary understanding), people move to understanding by breaking their prejudices, but after that they come back to the text or "texts", in an unending process, following the hermeneutical circle which could never be totally closed, and where there is a fusion of horizons. In Catholic theological institutions, this hermeneutical circle is often referred to as the "Pastoral Circle", which means that people do not rely on normative precepts only, but seriously consider their life experiences. The term "Pastoral Circle" (Holland & Henriot, 1983) is used in doing Social Analysis and Theological Reflection.

In his article mentioned above, Wijsen (2005) used the term "Practical-Theological Spiral". The term "spiral" replaced the term "circle" which gave the impression that eventually the circle would be closed. But because the term "spiral" in Indonesia means something else (i.e. contraception), here the term "Practical-Theological Circle" is maintained, and also on the on-going process, but the content is developed to become a discursive analysis, which pays attention to the inter-action between the symbols of power. In itself power is not negative, but needs to be negotiated and managed so that it can bring benefit for all. Wijsen himself later on tends to move from social analysis to discursive analysis, under the influence of Fairclough. It is better not to ask for the meaning of words, but ask how the words are used (Wijsen, 2019).

The workings of the Method of Practical-Theological Circle can be recognized in the Description of the location in the Introduction above. Description cannot be totally objective, as it depends also on the intention and purpose of the authors. Not the whole area of Tamban-Sendangbiru is described, but only the rehabilitated mangrove area and its surroundings. After the general description, the authors will continue the history of the ecological damage and the effort to rehabilitate the mangrove forest. Since the

authors relied on the information by the CMC staff, this description of past history is not just Description, but also mixed with Analysis, with emphasis on the negotiations of power. Next, Evanoff's (2011) theory of Bioregionalism shall be explained in Analysis, to understand the relationship between God, Nature and Human Beings in the motive and work of CMC people. Third comes Interpretation, which is a theological interpretation which corrected certain assumption that all the indigenous Christians are obedient to Dutch colonial power and highlights the local wisdom of Sendangbiru, i.e. spiritual teachings which pay respect to nature. The rehabilitated mangrove forest is regarded by the authors as an Ideal Situation. The last part is the Plan for Action to achieve the Ideal Situation. A Plan for Action is concerned with relating the practical work of CMC in restoration ecology with the ecological programs of GKJW. The authors propose reconciliation between CMC and GKJW as an ecclesiastical institute. Concretely, the authors propose to integrate the work of CMC-KTH with the ecological programs of GKJW as part of the interest of the authors. Except for one, all of the authors are congregants of GKJW. But the authors also propose to create a new, contextual theology for GKJW which does not place God, Human Beings and Nature in a hierarchical order, but in harmony with each other. This contextual theology will replace the old theology, which is anti-nature, and such will hamper the effort of the people to rehabilitate nature. A new practice could inspire a new theology (Wijsen, 2005, pp. 112–115).

General Description of Sendangbiru coast

In 1925, some of the people of Sitiarjo, a Christian village in the coastal area of South Malang, cleared the forest along the coastal area of Sendangbiru to create a new settlement. Sitiarjo and other Christian villages in South Malang, formerly a forested area, were the result of a movement to clear the wooded southern area by Christian converts in the second half of the 19th century. As can be seen in Claude Guillot's (1985) research on the process of Christianization in Java, which will be described below, there is a relationship between the opening of the forests, the establishment of new Christian villages and colonial politics of that period. The new settlement was considered as a Christian village, and whoever wanted to stay there had to convert into Christianity (Saptoyo and the staff of CMC, personal communication, April 18, 2019). This situation where Christians formed the majority lasted into the second half of the 20th century, when the government built a harbour on the coast of Tamban-Sendangbiru. Because of the economic

dynamics of the coastal area, many non-Christians from outside came to Sendangbiru, and reversely, many Christians left the village. The old condition for non-Christians to convert could not be held any longer. Nowadays the Christians of Sendangbiru consist of just 25% of the whole population of Tamban-Sendangbiru. Total population of the area at present is 8200, where 2100 of them are Christians (Saptoyo and the staff of CMC, personal communication, April 18, 2019).
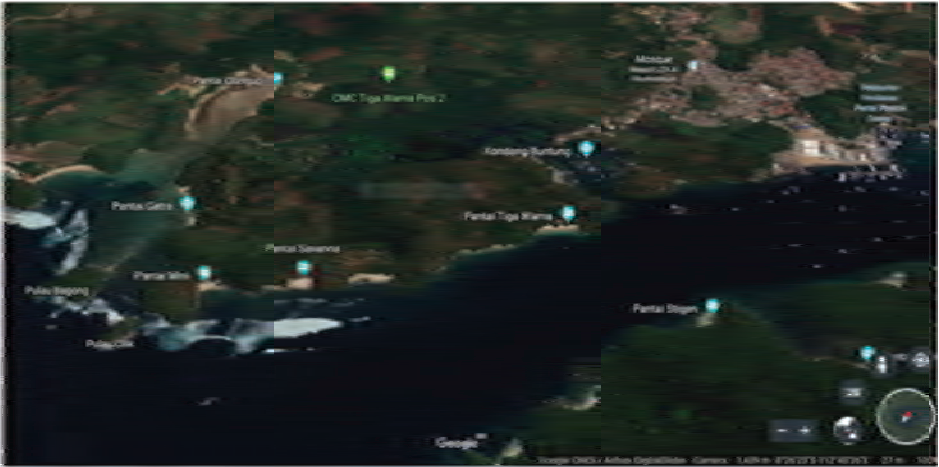
Picture 1. Aerial view of the coast of Sendangbiru

After the demise of Soeharto's regime in 1998 the vacuum of power was seen as an opportunity by many, both inside and outside Sendangbiru, to ravage the forest along the coast, which was officially under the supervision of the government (Perhutani). The trees were felled to clear the ground, the woods were sold and the clearance was planted with banana, coffee and cloves. Loosing coastal forest was a dire threat to ecological balance, as it was part of the coastal ecological vegetation layers which consisted of coastal forest, mangrove forest, sea weeds and the corral-reefs. Eventually, in 2004, the other layers also disappeared: the mangrove forest was gone because the wood was used for domestic fuel and fuel for limestone-industry, and to produce charcoal of high quality. The sea-weed fields were gone, and the corrals were destroyed by people using explosives and potassium, in order to catch fish. There was no longer any fish, and shortage of water. Part of the former mangrove area was then occupied by some people who tried to establish a fishermen's village, but as there was no fish, the village was soon

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abandoned (Saptoyo and the staff of CMC, personal communication, April 18, 2019).

There is also another source of information concerning the disappearance of fish, according to a study on coastal vulnerability, based on CVI (Coastal Vulnerability Index), by the research-team from the University of Diponegoro (Undip) Semarang (Handartoputra et al., 2015). Socio-economical activities on the coast of Sendangbiru, including the building of modern fishermen's harbour and fish auction/fish market by initiators from outside the area, could be the cause of high vulnerability. The Undip research-team noted that "these activities could be the cause of environmental damage because of human activities" (Handartoputra et al., 2015, p. 95). The authors' observation at the location of the harbour and the fish auction confirms this concern. The activities were done too close to the island of Sempu off the coast, which has been declared by the regional government as protected area. The fish auction handled fish caught in the deep sea far away from the coast.[1]

Picture 2. The triangle as symbol of spirituality of CMC Tiga Warna

These socio-economic activities were the cause of conflict between the initiators and the local people in 2005 (Saptoyo and the staff of CMC,

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[1] This observation was made on the morning of Friday, April 19, 2019.

personal communication, April 19, 2019). At first it was agreed that the activities only involved the deepening of the sea-pool, where the fish-boats usually harboured. But in reality, what the initiators (with the support of the local government) did was reclamation activities, which caused damage to the coast and also to the corral-reefs. This information is important as it points to the awareness of the local people concerning their ecological tradition, despite the loss of the natural richness of Sendangbiru. It also illustrates the problem behind the equilibrium of ecological sustainability, social justice and human welfare as described by Evanoff below. The development of a modern harbour and fish industry could enhance human welfare, but what is the effect of this activity to the life of the fishermen (social justice) and ecological sustainability?

History of the rehabilitation of Sendangbiru's mangrove forest

In 2005, Mr. Saptoyo, a member of GKJW, graduate of a Christian Teachers' college at Suwaru and a self-made entrepreneur, initiated the move to save the coastal area of Sendangbiru by planting mangrove seeds in the former area (81 hectares) of destroyed mangrove forest. His motivation was childhood memories, when the mangrove forest still existed and was a children's playground. But there was also a stronger motive that was the legacy of traditional Javanese spiritual teaching, which was kept alive by Mr. Saptoyo and his five comrades, in which the relationship between God, Nature and Human Beings are described as a triangle. It means that the three corners are co-related with each other. The triangle as a symbol of co-relatedness of the three entities can be seen engraved at the doors of CMC secretariat.

Accordingly, God is placed at the top, the highest position. Nature and Human Beings originated from God, and are manifestations of God in the world. Nature and Human beings are in equal position. Nature is dependent on human beings, but in turn Human Beings are dependent on Nature. The teaching of this spirituality is directly taken from life experience. In Sendangbiru there is a spring (Javanese: *sendang*, hence the name Sendangbiru, "Blue Spring"). The spring gives life to the people, but in turn the people have to take care of the spring. In 2008 Mr. Saptoyo motivated the people of Sendangbiru and the congregation of GKJW Sendangbiru church, to plant mangrove together. In the beginning they did voluntary work of planting mangrove every Sunday after church service. But, because of several factors which shall be referred to below, gradually volunteers withdrew from this

planting activity. There remained just six persons, who now could be regarded as the founding fathers of the new movement. They consist of three Christians and three Muslims: Mr. Saptoyo, Mr. Iswicahyo, Mr Sutris, Mr. Pii, Mr. Sidik and Mr. Eko.

Because he was already deeply involved in this enterprise, Mr. Saptoyo and his friends decided to do this kind of work more seriously. In 2012 he closed his business activities as an entrepreneur and began the mangrove planting effort in a professional manner. On September 21, 2012, The Group of Supervisors (Ind: Kelompok Masyarakat Pengawas, abrr. POKMASWAS) *Gatra Olah Lestari* was formed. This date is commemorated every year as the birthday of Clungup Mangrove Conservation. The formation of this group was based on the Law No. 27/2007 which was revised to become the Law No 1/2014 concerning the management of coastal areas and small islands. The regional government of East Java developed these laws further to become Regional Rule (Perda) No. 1/2018.

In 2014 the Foundation *Bhakti Alam* was established with the vision of "Living Together with Nature" and its mission is: 1. Creating a society which loves the natural environment. 2. Creating a conservation village which could supervise the natural environment (the formation of POKMASWAS above). 3. Utilising the natural resources in a responsible way through programs of empowering people. 4. Participating in the government programs of developing tourist-attracting villages in the province of East Java[2]. In the same year, *Bhakti Alam* Foundation formed the NGO, now known as Clungup Mangrove Conservation Tiga Warna, popularly known by its abbreviation, "CMC Tiga Warna" ("Tiga Warna" means "three colours" and is the name of one of the many beaches of Sendangbiru coastal area).

Nowadays, the area of conservation has become an eco-tourism destination, which offers education of coastal and oceanic eco-system in many attractions, such as hiking along the mangrove forests with guides, planting mangrove, canoeing, surfing, and provides camping grounds, dive spot, crab observation sites, cleaning of washed-ashore garbage and providing overnight-stay huts. The roads within the conservation areas are tracks which can only traversed by motor-cycles. The job of guides and motor-cycle drivers are given to the local people, in order to increase their welfare. The parents and grandparents

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[2] The mission of Bhakti Alam Foundation is stated in a notarial act which is registered at the notarial office of Siti Noer Endah SH, Act Number 09, dated October 14, 2019.

of these local people were destroying the mangrove forest in order to earn a living, but now their descendants are earning their living by indirectly participating in the work of nature conservation.

Picture 3. Map of the Location of CMC Tiga Warna

This conservation area is open every day except Thursday. To enter the area one must buy a ticket. Since 2015, 10% from the sales of tickets is given to Perhutani and 30% is allocated for nature conservation. In 2015, CMC Tiga Warna was involved in a conflict with Perhutani, which disagreed with the ticket charge, and reported CMC Tiga Warna to the police on accusations of fraudulence. The reason of this conflict is that in 2015 there was an overlapping of zones of authority between the Department of Forestry and the Department of the Sea. Mr. Saptoyo, his daughter Lia and three staff members were detained by the police for three days, but because of the support of the other staff members of CMC Tiga Warna and the local people, they were freed. In the the end they have an agreement that from 2015-2018, 45% of the profit goes to Perhutani, 20% to the local government, 3% to the Muspika and 2% to the village of Sendangbiru. The remaining 30% goes to CMC Tiga Warna, and is allocated for conservation, and also covers the insurance cost, tax, and ticket printing. In 2018, the provincial government issued the Regional Rule No. 1/2018, under the framework of "Social Forest", in which 10% of the profit goes to Perhutani, 20% to regional government as corporation tax, and the rest goes to the management of CMC Tiga Warna. In turn 10% from the profit of management is submitted monthly to the village

as the indirect beneficiary (Saptoyo and the staff of CMC, personal communication, April 18, 2019).

It is not clear whether the agreement above has totally overcome the conflict between CMC Tiga Warna and Perhutani. In 2018, after the success of eco-tourism management of the coasts of Sendangbiru by CMC Tiga Warna and KTH (Kelompok Tani Hutan, Forest Farmer's Group), again Perhutani demanded that the tickets to enter the conservation area are not issued by CMC Tiga Warna, but by Perhutani. CMC Tiga Warna and KTH rejected this demand, and there is no solution yet in sight. After the conflict, CMC Tiga Warna became known region-wide, if not nation-wide. Many similar NGOs expressed sympathy with and supported the actions of CMC Tiga Warna. They also received support from people who do not reside in Sendangbiru and who are not members of GKJW. Many of them are Muslims. These people were formerly the ones who ravaged the forest. They were persuaded to join the KTH, and KTH eventually created and promoted regulations concerning "Social Forest". In the end, CMC Tiga Warna activities were not just restricted to mangrove rehabilitation, but also involved rehabilitation of the former coastal forest.

The use of the terms "Forest Farmers" and "Social Forest" shows that the understanding of ecology in the mind of the local people are different from many Western concepts of ecology, which make an antithesis between nature and human beings. In these Western antithetical concepts, the forest is a forest, and included no human beings. Human beings are regarded as destroyers of the forest. If a forest is declared as "protected forest", then it means that it should be cleared of human inhabitants, even if they have been there for centuries, have taken care of the forest, and regarded it as "home". The result is eviction of these people from the so-called "protected forest" (Singgih, 2014). In the local concept of CMC Tiga Warna, nature (in this case the forest) is not placed in an antithetical stance with human beings. Human beings are part of nature, but then nature is also part of human beings. The authors discovered that this concept is relevant for the context of Sendangbiru, and should be taken into theological considerations below.

The efforts of Mr. Saptoyo and CMC Tiga Warna succeeded in rehabilitating 73 out of 81 hectares of the former mangrove forest. Their actions were eventually appreciated in 2016 by the Government of Indonesia and the Ministry of Natural Environment which granted him the prestigious Kalpataru Award. Before that he had already received the Adibakti Mina Bahari Award

in 2015. After getting the Kalpataru Award, in 2017 CMC Tiga Warna won the first prize of Tourism Award from the provincial government of East Java, as well as the second prize of Pesona Indonesia Award from the Ministry of Tourism. In the same year, Mr. Saptoyo's daughter, Lia Putrinda Anggawa Mukti was recognized as one of the Young National Pioneers. In 2018 she also received an appreciation from the Presidential Work Unit as a "Social Entrepreneur". In November 2018 CMC Tiga Warna was covered in the popular Metro TV program "Kick Andy", and in 2019 again Lia received appreciation and became part of the world-wide Women Earth Alliance (WEA).

Picture 4. Aerial view of the area of conservation in 2019, where 66 hectares of the rehabilitated 73 hectares are visible

Analysis: Richard Evanoff's theory on Bioregionalism and the context of Sendangbiru

Evanoff's (2011) focus is on creating a global ethics that concerns itself with promoting ecological sustainability to enable both human and nonhuman to thrive, achieving social justice within and between cultures, and maximizing human well-being. Evanoff's theory is comprehensive. Risking that the authors are doing injustice concerning the width of its comprehensiveness, they have to summarize his theory in order to be able to implement it in the context of Sendangbiru. The title of his book referred to the terms "bioregionalism" and "global ethics". Evanoff is not happy with universal

ethical formulations concerning environmental cases and places himself on the side of regional needs and regional formulations. In other words, he is more contextual than global. However, it does not mean that he is a follower of anti-globalization movement. Rather than "think globally, act locally", he prefers "think locally, act globally". The authors agree with him, as what has been successful in other parts of the world does not mean the same process will also succeed in a local context. As has been described above, regulations concerning protected areas or protected forests in the United States which forbid human access to the forest, cannot directly be applied to the context of South-East Asia, where the forest in the tradition of the people is regarded as "home" (Singgih, 2014, pp. 238–240).

Within the framework of bioregionalism, components which are commonly regarded as having an antithetical relationship are seen in a more dialectical way in order to be able to relate to one another in a harmonious way, but where each component does not loose its autonomy (Evanoff, 2011, pp. 1–2, 84). This understanding is based or borrowed from Dieter Steiner's "human ecological triangle" which consists of E = Environment; S = Society and P = Person. In P there are three layers of consciousness: the discursive, the practical and the unconscious (or non-reflective consciousness) (Evanoff, 2011, 34–35). Because E, S and P have to be seen in a balanced way, the authors picture Steiner's triangle as as having the same corners, that is an equilateral triangle. The dynamic relationship between the three components is termed by Evanoff (2011) as "transactional relationships" (p. 1). Of course, the term "transaction" (Ind: "transaksi") has the connotation of business: buy and sell, for instance, "financial transaction", but the meaning here has nothing to do with that. Instead, Evanoff uses "transaction" to negotiate the interests of the three components in such a way so that their interaction does not become a liability or a loss, both for the whole of three involved parties, and for each one of them. Steiner is an environmentalist who understands conceptual constructs and material reality as interacting dialectically with each other. How we think transforms the world as much as the world influences what we think (Evanoff, 2011, p. 35).

E, Environment, can be related to Nature, therefore, for our purposes, we will use N in our diagrams, S for Society and P for People. Steiner's triangle, as we have seen above, is concerned with "*human* ecological triangle", and as such it cannot immediately be applied in theological discourse concerning God. Evanoff (2011) borrowed Steiner's equilateral triangle, and so it can be named as "Steiner-Evanoff's triangle". But as the authors are doing

theological research, then the component G (God) could be added to the components N, S and P, and the triangle can now be named as "Steiner-Evanoff-UKDW's triangle".

N

P — S
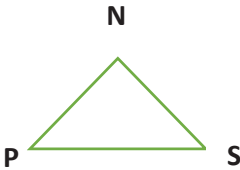
Picture 5.
Steiner-Evanoff's
triangle

GN

GP — GS
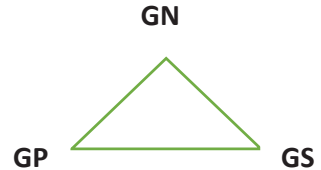
Picture 6.
Steiner-Evanoff-
UKDW's triangle

The component G, God's image, is not understood in the traditional way as a transcendent being, the wholly other, the Creator who is totally different from creation. Instead, the G component becomes more and more evident in theology and ecology discourses as the divine Being who is not placed in an antithetical relationship with Nature and Human Beings. God is present in Nature and in Human Beings (the immanent God). It is panentheism rather than pantheism. The immanence of God is not contrary to the Christian belief in God according to the Scriptures. There are many references to the immanence of God in the theophany texts from the Old Testament, and in the letters to the Romans and the Colossians from the New Testament.

Evanoff (2011) stated that humans are both *a part of* and *apart from nature* (p. 34). But in chapter seven, he still holds that on one hand communicative ethics from Rawls and Habermas could be developed toward Ethics of Environment, on the other hand, however, non-human entities could not enter into communicative discourse with humans. Only humans can develop this kind of communication. But it does not mean that humans are placing nature beneath them. Communicative ethics are always ready to prevent the effort to reduce nature's autonomy (Evanoff, 2011, pp. 4, 92–95). Although Evanoff wishes for a dialectical relationship between the three components, for him Nature is dependent on Humans, and it is Humans who decide whether Nature has autonomy or not. Is it true that communicative ethics cannot be developed to become an environmental ethics, which are prepared "to hear the voice of Nature"? We are fully aware that it is a difficult notion to be accepted by modern and postmodern people, but in the present situation, where people are more and more aware of the intrinsic value of nature, we could and should

imagine that human beings are giving voice to those who have no voice, or whose language is different from human language. In the field of theological discourse, this is not impossible.

In his interpretation of texts in the Old Testament in which nature praised God as in Psalm 148:3-10 and Isaiah 44:23, Terence Fretheim (2005) proposed that it is not enough to regard these praises by nature to God as poetical metaphors only, and that only human beings could praise their Creator. Fretheim developed the newer trends to see the relationship among God, Human Beings and Nature in a more dialectical and even non-hierarchical way. He offered the idea that in this kind of relationship, Nature praised God in non-verbal language. Of course it is clear that humans are the writers of Psalm 148 and Isaiah 44, but these writers who have a poetical soul, are open to the possibility that Nature, in its own language which is different from human language, can relate to God. If this is true, then it is equally true that Nature can also relate to Humans.

We come to the conclusion that Evanoff's (2011) theory on bioregionalism and global ethics, with some qualification, can be applied in consideration of attitude toward nature and change of attitude toward nature which is the object of research of the team in Sendangbiru. The concept of relationship among Self-Nature-Society which has been developed to become concern for Ecological Sustainability, Social Justice and Human Well-Being is helpful in drawing a better relationship among God, Nature and Human Beings.

Picture 7.
The Rehabilitated
Mangrove Forest
During Low Ebb

Picture 8.
Close-up of the
Rehabilitated
Mangrove Forest

Theological Interpretation: Mapping the Relationship among God, Nature and Human Beings in the context of South Malang

In his book, *Etika Bumi Baru* (Eng: *A New Earth Ethics*), Robert Borrong (1999) summarizes a chronology of humans' attitude toward nature as follows: first, humans are equal to nature, then humans are superior to nature and now, nature is superior to humans. But when he described the equal relationship between humans and nature, he acknowledged that nature is savage and that humans are actually subservient to nature. In describing the superiority of nature to humans, he also explained that that this superiority can be seen in ecological damages caused by humans such as flooding and global warming. According to the authors, the chronology is better to be described in this way: first humans are subservient to nature, then nature is subservient to

humans, and now nature and humans are in an equal position, where the one is not subservient to the other.[3]

When this corrected chronology is related to the context of South Malang, it can be said that in the beginning the local people are subservient to nature. The attitude is one of respect, as nature represents the Divine. It does not mean that humans do not have the courage to channel the powers of nature for their own interests. Humans plough the land to create paddy-fields, they organize irrigation and water-distribution and they build villages by clearing the forest. But all these activities are not done in order to overcoming nature, but precisely in order to pay respect to nature. All of human activities which relate to nature need Divine permission. Work is related to worship (and ritual).[4] In worship and ritual, people relate themselves to nature which on one hand is superior to them, but on the other hand, nature as a gift to enable them to fulfil their life aspirations.

This respectful attitude toward nature, however, disappeared in the modern age, because of the influence of colonialism and the spread of Christianity by Western missionaries. According to Guillot, the clearing of forests in Central Java is often related to new centres of power. The term *babad* has a double meaning, which is seemingly unrelated: it is "felling" but also "chronicle" (Guillot, 1985, p. 175).[5] The clearing of forests indicated a spiritual achievement, the mastering of centres of life by the founding fathers of the village, and that is why they become the protectors of the village. The word also means the establishing of a new palace (*kraton*) to replace the old one. So clearing of forest is related to power.

Clearing of forests were done before the arrival of the Dutch. But when the Dutch were doing the same, a significant change occurred. Under colonialism, the ruler or the *pandito Jawa* were no longer regarded as leaders of the

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[3] The authors' view is based on their response to Borrong in Emanuel Gerrit Singgih's undergraduate course, "Teologi dan Ekologi" ("Theology and Ecology"), The Theological Faculty, UKDW, Yogyakarta, second semester, 2018-2019, as well as on the work of Abraham (1991).

[4] In biblical Hebrew, *abodah* means both work and worship. In the Javanese language, the term *bekti* (from Sanskrit: "bhakti") can be compared with *abodah*.

[5] For his interpretation of the meaning of *babad*, Guillot (1985) relied on D. Lombard, who holds that *babat* ("felling") is a (real and symbolic) start for a new *babad* ("chronicle", "history") of a settlement, either of a humble village or a royal palace. The forest is cleared (*babat*) to begin a new chronicle (*babad*) (p. 175). We are aware that the word *babad* ("chronicle") is different from *babat* ("felling"). It may be, that Lombard assumed these two different meanings originally came from the same word.

people. They were supplanted by the supervisors of the plantations, which replaced the forests. These supervisors were very close to the indigenous people because they were usually Eurasians or had indigenous wives (Guillot, 1985, p. 176). Although Guillot's opinion is important, he seems to have jumped too hastily to (wrong) conclusions, as he did not pay attention to the difference between forest clearing by the local Javanese people and the Dutch people. Forest clearing before the time of the Dutch was part of showing respect to nature. The powers of the ruler did not diminish the powers of the spirits who were believed to dwell inside the forest, because not the whole forest was cleared. There was a division of territory: the *desa* ("village") and the *alas* ("the forest"). They were not placed in antithetical position. However, the clearing of forests by the Dutch during the 19th century, which evolved to become the colonial program of *Cultuurstelsel* (Eng: *Cultivation System,* i.e. "forced planting") was intended to defeat the powers of nature. All of the forests had to be cleared to make room for plantations. The motivation of the colonial rulers was clear, namely to have as much profit as possible from world trade at that period (Yoder, 2020).

According to Guillot (1985), the change brought by the Dutch to the social condition of Java was a blessing in disguise for Christian missionary efforts. For a long time, the spread of Christianity was limited to the urban areas (the cities), but after the plantations were created, which were under the powers of the supervisors ("*mandor*") who were Christians, Christianity was able to enter into the countryside. Guillot referred to Coolen at Ngoro, Gunsch at Sidokare, Tunggul Wulung at Jepara, who cleared the forests next to the plantations owned by the Armenian, Sukias, Le Jolle at Simo, and the Philips family at Tuksongo. The reference to Tunggul Wulung is inaccurate. It was precisely because of Sukias' connection with the Cultivation System, which made Tunggul Wulung decline the offer of Pieter Jansz, the Mennonite missionary, to work under Sukias. In the end, Tunggul Wulung established his own Christian settlements at Bondo, Banyutowo and Tegalombo, independently of the settlements under Dutch colonial supervision (Yoder, 2020, pp. 235–239).

Guillot's (1985) view needs to be reconsidered: it is true that the opening of the plantations is one of the factors that made possible the spread of Christianity to the countryside, and also the establishment of Christian villages such as Ngoro. However, it is too hasty to regard Coolen and Tunggul Wulung as "Dutch supervisors" or agents of Dutch supervisors. It is true that the land of Ngoro was leased by Coolen from the Dutch government, but it

does not necessary makes him a Dutch agent. The reverse is true: Sadrach,[6] Coolen and Tunggul Wulung often had to play the role of mediators between officials of the colonial government and the *priyayi* (the traditional gentry or nobility), and even between the indigenous Christians and the Dutch missionaries. It is possible that this function of moderator gives the impression to Guillot that it is the same as supervising, but it is not.

According to Guillot (1985, p. 176), the establishment of Christian villages was motivated by rejection of old structures of power (the traditional gentry or nobility), and was symbolized by clearing of forests to become new settlements, which recognized new structures of power (the colonial government). But this view clashed with events that happened in the Christian villages, for instance, in Karangjoso, the place where Sadrach eventually settled. Because he refused to work under the Dutch missionaries, Sadrach built his congregation as an independent *merdiko* congregation. This term was taken over from the Malay language ("*merdeka*"). *Merdiko* meant independent from the Dutch missionaries, including in matters of spirituality (Partonadi, 1988, p. 78; Singgih, 2015). Of course the example of Sadrach's congregation cannot represent all the Christian villages in the 19th century. It is evident that not all the clearing of forests and the establishment of Christian villages were the result of negotiations of power between the traditional gentry or nobility on one hand and the colonial structures of bureaucracy and the mission on the other hand. Still, it can be stated that *the indigenous Christians negotiated their own way independent of the two powers*. The impact of these negotiations could also be seen in the theological outlook: on one hand the indigenous Christians inherited the teachings of the Dutch missionaries, but on the other hand they still adhere to the traditional spiritual teachings of their ancestors. These traditional spiritual teachings motivated many Javanese Christians to abandon the teachings of the missionaries which encourage them to replace forests with plantations, in the framework of the Cultivation System (Yoder, 2020, pp. 229–230).

Guillot's (1985) theory which has been corrected above needs to be complemented by other motives which can be detected in the traditional

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[6] Guillot (1985) did not mention the name of Sadrach as one of the pioneering supervisors, as Sadrach was not a plantation supervisor and did not clear the forest in order to establish a new Christian village. He settled down in Karangjoso, a Muslim village. But Guillot (1985) believed that "to the present day" (pp. 178–179) in the villages of Bagelen, Sadrach was revered as a forest opener.

narratives of the founding fathers of Christian villages in South Malang (The staff of CMC, personal communication with author G. H. Buono, May 30, 2019).[7] As has been said above, the opening of forests was regarded as a spiritual achievement in order to build a new centre of community life. The founding fathers were regarded as having spiritual powers superior to the powers of the spirits that inhabit the forest and other parts of nature. In South Malang, it is not only the forests which became the challenge, but also the sea, in this case, the South Sea (The Indian Ocean), which was regarded as sacred and the dwelling place of Nyai Rara Kidul, the ruler of the South Sea. There is a relation between the forests and the sea in the context of South Malang. The coastal forests are the outer parts of the powers of Nyai Rara Kidul. The clearing of forests was a Christian challenge to the powers of Nyai Rara Kidul. It is interesting that Mr. Saptoyo's view concerning the coastal forests as the outer part of ecological equilibrium of the sea is similar to this Christian-Javanese myth. From South Malang to Banyuwangi, the Christian villages were built on coastal areas, after the coastal forests were cleared. The existence of these Christian villages symbolized the triumph of Christ over Nyai Rara Kidul (van Akkeren, 1994, pp. 156, 168).[8]

In the context of research on Sendangbiru, rehabilitation of the mangrove forests and the plan to rehabilitate the coastal forest by CMC- KTH can be regarded as a 180% reversal of the theological or ideological assumption above. We have seen above that the spiritual conviction of Mr. Saptoyo and his five colleagues concerning the relationship among God-Nature-Human Beings in the symbol of a triangle. According to their information, this symbol was acquired in a mystical way, when they were working, planting mangrove seeds at night. When they rested from work and meditated according to their religious beliefs (Christianity and Islam), some of them looked up to the sky, saw and found the symbol. Regardless of how this symbol was found, it is interesting that the academic approach of Evanoff (2011) who was using Steiner's triangle, is similar to the mystical-spiritual approach by the local people of Sendangbiru, who were using their own triangle.

It is of course evident that this change of attitude is also influenced by the new ecological policy of the National Government concerning the Environment, which in turn is influenced by the international concern for climate change

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[7] Buono spent hours with the CMC staff and recorded his conversations with them.
[8] In van Akkeren's book (1994), the name of the goddess is "Nyai Loro Kidul".

and global warming. But the rehabilitation efforts by the local people, Christians and Muslims, can be seen as a direct opposition toward the theology or ideology of forest clearing and opening of new settlements in the past history of GKJW, although in Sendangbiru it is clear that the coastal forest and the mangrove forest were felled at the end of the 20th century, and not in order to build a new settlement. This opposition in turn is the result of holding on to the legacy of the ancestors, who lived a theology of harmony among God, Nature and Human Beings. In time of crisis, the local people have to choose between the spiritual legacy of their ancestors, and the theological legacy of the missionaries and their forefathers. While remaining loyal to Christianity, they chose the former. We can say that the belief concerning the forest and the sea, or nature in general as being ontologically negative, has been broken by Mr. Saptoyo and his friends from CMC-KTH.

Evanoff (2011) proposed a balanced and harmonious relationship among the self, society and nature, which does not diminish the autonomy of each component. Starting from here he also proposed a balanced discourse among ecological sustainability (nature), social justice (society) and human well-being (self). We have applied Evanoff's theory within a theological frame-work. The problem for theology is the Divine factor: can God be placed in the same level as Nature and Human Beings? Of course not, but if God or the Divine can be understood not in the traditional way as an All-Powerful God, but an All-Powerful God that has relinquished all power in Jesus Christ, *kenosis*, for the sake of salvation of the world, then on one hand, the Divine and the Human are not sacrificed, but on the other hand, in making a balanced view of Divine transcendence and Divine immanence, where God can be in Nature, Nature is not sacrificed either (ten Kate, 2002).[9]

Evanoff (2011) also used the term "dialectic" beside "harmony" to emphasize the dynamics of reconciling concepts which previously were regarded as opposing each other. It is also clear that in his ethics of bioregionalism, Evanoff did not regard "deep ecology" as in opposition to "shallow ecology". Anthropocentric interests as in "shallow ecology" does not need to be placed in antithesis to cosmocentric interests as in "deep ecology". Nature has an intrinsic and instrumental value. Both are complementing each other. Mr. Saptoyo's position is between "shallow ecology" and "deep ecology". Both nature and human beings are important. As creatures they are on equal level, and they are subservient to God as their Creator. When we compare

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[9] In ten Kate (2002), the term is "Econokenosis", still a long way to "Ecokenosis".

Evanoff's triangle with Mr. Saptoyo's, then Evanoff's is an equilateral triangle, while Mr. Saptoyo's is (still) an isosceles triangle, but which tends to become an equilateral one. The policy of closing the reservation area every Thursday, according to Mr. Saptoyo is a form of reverence to nature. This is already the beginning of an attitude which regards nature as also having an intrinsic value, and not just an instrumental value.

Planning of Action: Connecting the programs of CMC Tiga Warna and the programs of GKJW

The rehabilitated mangrove forest, done by CMC and KTH, can be described as the Ideal Situation. Here the authors propose Planning for Action to achieve that Ideal Situation. We have seen above that in the beginning, members of GKJW congregation at Sendangbiru participated in the rehabilitation of mangrove forests, but then withdraw from the work, so that in the end the participation of GKJW as a fellowship and as an ecclesiastical institution is not evident in the process of attitudinal change toward nature in Sendangbiru. According to Mr. Saptoyo this is because the understanding of worship by GKJW is inner-oriented, worship is limited inside the walls of the church building, and does not include worship outside the church building, worship in the sense of ministry in the middle of society and in the midst of nature, such that it becomes a witnessing of faith (Saptoyo, personal communication, April 18, 2019).

On the other hand, the authors also received information that in the past relationship between Mr. Saptoyo and GKJW as an institution was not cordial, and that it is why they are not close to this day. There is also different information that the cause of the withdrawal was a disagreement on the side of GKJW congregation concerning plans to replace voluntary communal work by the congregation with professional management in order to create an eco-tourism site which will also be managed professionally. And there is objection from the GKJW congregation to-day, that the conservation area only offers temporary jobs such as hiking guides and motor-bike riders which are dependent on the visitors, and not permanent jobs.

The authors have examined GKJW official documents, for instance, documents from Majelis Daerah (Regional Council, which the equivalent of a Classis, abbr: MD) concerning "Discussion on strategic design of ministry toward the southern coast", "Plans for Development Activities (PRKP)"

GKJW 2011-2016 , Programs for Development Activities (PKP) V, "To Create a Self-Supporting GKJW and Meaningful for the Neighbourly Creatures (Ind: "Sesama Ciptaan") which is different from the previous PKPs which have no ecological perspective. It seems that this PKP V is influenced by the content of a book, which was published by The GKJW Council of Ministry Directors (DPP) with the title *Memenuhi Panggilan Bumi (*Eng: *To Heed the Call of the Earth*) (Sudjianto et al., 2008).

The book describes the ecological concept of GKJW as relation among God, Humans and Nature, *jagad gedhe* (macrocosmos) and *jagad cilik* (microcosmos), the past, the present, and the future, freedom and responsibility, and spirituality and ecology. "Harmony" becomes an important key-word and there is reference to the past, which is the period of Coolen and Paulus Tosari[10] where harmony existed but is now extinct, and the wish to bring it back to the present. It also contains the terms "panentheism" and "neighbourly creatures" (Ind: "sesama ciptaan"), which indicate ecological consciousness. There is also reference to concrete programs such as re-planting of trees in order to prevent landslides as the impact of flood disasters.

This book was published in 2008, while CMC Tiga Warna was formed in 2014, so it is understandable that CMC Tiga Warna was not mentioned in the references. The authors were unsuccessful in looking for documents which record ecological events in GKJW after 2009. It is clear that there is ecological destruction in the region where GKJW is situated, but only CMC and KTH, which involved lay people of GKJW, are most active in improving the situation. Despite the documents above, which show that there is ecological awareness in GKJW, as an ecclesiastical institution it still does very little concrete work on ecological rehabilitation. As many of those involved in CMC and KTH work are lay people of GKJW, the authors propose that in the future, the ecological programs of the church should be connected with the programs of CMC Tiga Warna and KTH concerning the rehabilitation of the coastal areas of South Malang, and even the whole southern coast of East Java. In other words, GKJW as an institution, whether as a Synod (Ind: "Majelis Agung), Classis (Ind: "Majelis Daerah") or Local Parish (Ind: "Jemaah") have to approach CMC Tiga Warna and KTH in an effort of reconciliation.

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[10] Paulus Tosari was an evangelist who started as a disciple of Coolen, but later on he became the leader of his own flock at Mojowarno.

CMC Tiga Warna and KTH have more experience in practical and technical matters concerning the salvation of nature, and of course, as they are neighbours, the two congregations: GKJW Tambakrejo and GKJW Sendangbiru should be directly involved with this reconciliatory approach. It needs to be done in the framework of religious plurality, because the work of CMC Tiga Warna has involved both Christians and Muslims. The same ecological concern could become a strong motivation in living together peacefully, even when the Christians are in the minority while the Muslims are in the majority. The salvation of nature cannot be done by Christians alone. There has to be a "mobilization of religions" (Singgih, 1995, p. 139). Beside reconciliatory structural-institutional approach with the purpose of mobilization and empowering of the whole local people, Christians and Muslims, the authors also propose a reconsideration and perhaps even a disentangling of the theology or ideology behind the clearing of forests and the settlement of Christian villages along the coastal areas of South Malang, which posited contestation between the forces of Good (Jesus Christ) and the forces of Evil (Nyai Rara Kidul). Because there is now in the society a radical change in the understanding of the meaning of the forest and the sea, the local people, but especially the fishermen, need to transform this encounter of contestation into a better encounter, namely an encounter of reconciliation. If the forest and the sea are related, then as a church, GKJW needs to develop a theology of the coast based on reconciliation between Lord Jesus Christ and Nyai Rara Kidul.

From his examination of the encounter between Christianity and the Javanese religion, van Akkeren (1994) discovered that in the beginning the relationship between Lord Jesus Christ and Dewi Sri who is the symbol of rice and agriculture was peaceful and reconciliatory. Coolen had composed a prayer in which Allah is praised as the Fatherly Creator and relates Him with agriculture, clearing of forests, irrigation, cattle and Dewi Sri's dwelling-place. Then there is an invocation to the name of Allah as Holy and One, and Lord Jesus Christ as the Spirit of Allah. At the end, mount Semeru as the pillar of Java and Dewi Sri as Rice are invoked, and the prayer is closed by again referring to the name of Allah and Lord Jesus Christ as the spirit of Allah (van Akkeren, 1994, p. 124).[11]

But then this prayer or spiritual relationship has changed drastically, from reconciliatory it became hostile and contesting. In the end reference to Dewi

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[11] The prayer of Coolen is in Javanese, with an Indonesian translation.

Sri was erased from the mind of the believers, only the Lord Jesus Christ remained, which was then worshipped in a very monistic way. Van Akkeren (1994) regretted this development, because according to him, Dewi Sri is "the heart" of an agricultural society, and in the period when Indonesia became an independent nation with a strong nationalistic ideology, the heart was adjusted to the demands of nationalism (p. 123). *Dewi Sri is symbol of an ecological system* (our italics), a social and cultural structure. Faith in the Lord Jesus Christ has to take into account powers as Dewi Sri. There is no advantage in underestimating the powers of Dewi Sri which regulate the life of the village. Of course when Dewi Sri demands total obedience in a totalitarian society, it has to be emphasized that not Dewi Sri but the Lord Jesus Christ is the Head of all powers (van Akkeren, 1994, p. 230). But it does not mean that Dewi Sri does not exist. What Van Akkeren argued here can now be termed as a negotiation of symbolic powers (Wijsen, 2019, p. 66).

Mutatis mutandis, the content of meanings related to encounter between Dewi Sri and Christ can also be applied to the content of meanings related to encounter between Nyai Rara Kidul and Christ. GKJW's theology of the coast should be comprehensive, involving both the forest and the sea as part of nature, but by striving to become comprehensive, this theology of the coast can re-appreciate its agricultural and maritime heritage. At the same time, it has a character of contextual theology, seen from both its cultural-religious context and its location.

Conclusion

The application of Practical Theological Circle method on observing and analysing the new attitude of Sendangbiru local people toward nature has succeeded in bringing to the surface motivations and reasons of this new attitude. These motivations and reasons were the result of appreciating the heritage of wisdom from the past, from the ancestors who regard nature as equal to them, and such the ancestors have a harmonious relationship with nature. It was not just because of new ideas in modern ecology which are now very common in governmental policies all over the world. Because of this new understanding of nature in modern ecology, which is not contrary to the understanding of nature in traditional wisdom, the local Christians of Sendangbiru had reconsidered the legacy of their forefathers who were Christian converts during the 19th century. They inherited the theology of the missionaries who had an antagonistic attitude toward nature. The local

Christians returned to the spiritual legacy of their ancestors, which can see God in nature, and this legacy inspired them to rehabilitate nature.

What the local Christians did could inspire GKJW as an ecclesiastical institution to reconsider its theology, which is still the traditional theology inherited from the missionaries. To enable the congregations to participate in the work of rehabilitating nature which was devastated during the difficult times, GKJW has to develop a new theology of nature. This theology of nature should contain transformed insights from wisdom of the past and insights from the present understanding of nature in ecological science, and has an inter-religious character, that enables local people (Christians and Muslims) to create a religious mobilization to save nature. The success story of rehabilitation of the mangrove forest in Sendangbiru is a small ray of hope in the midst of the chaotic darkness of ecological destruction in Indonesia.

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CHAPTER 4

THE ROCKS AND TREES ARE OUR GRANDPARENTS: THE ERUPTION OF MOUNT SINABUNG AND THE RELIGIOUS NARRATIVES OF THE KARO PEOPLE IN SUMATRA

Jekonia Tarigan

Abstract

This chapter presents the results of an investigation into the role of indigenous religious beliefs in the responses of the Karo people of North Sumatra to the 2010 and 2013 eruptions of Mount Sinabung. The chapter particularly focuses on the re-emergence of a Karonese indigenous religious ritual known as *Mere Buah Huta-Huta* (gift to rocks and trees). Similar rituals with different names were conducted in some villages in the slope of Mount Sinabung. However, this research focuses on the ritual *Mere Buah Huta-Huta,* located in Mardinding village, Tiganderket sub-district, Karo, North Sumatra, Indonesia. Mardinding is the closest village to the top of Mount Sinabung and was threatened by the cold lava which often flows from the top of the mountain. The ritual was first performed three weeks after the eruption on August 26, 2010, and repeated only once, in 2013. It was not repeated after that because it was condemned as an animistic ritual by both Christians and Muslims. The aim of this chapter is to revisit the concept of animism in an attempt to understand how the Karo people perceive and relate to nature based on their indigenous religious beliefs and practices. To do so, it draws on theories of personhood and interpersonal relations (interconnectedness) between humans and nature, particularly those of Nurit Bird-David (1999) and Alfred Irving Hallowell (1960).

Keywords: Mount Sinabung eruption, *Mere Buah Huta-Huta*-ritual, Karo people, animism, personhood, interconnectedness

1.   Introduction: Interconnectedness between Humans and Nature

Indonesia, being on the ring of fire, is home to many active volcanoes. It is also subject to tropical storms and earthquakes, and its people frequently experience natural disasters. The indigenous religious traditions of Indonesia,

and in particular the Javanese religions, reflect the resultant sense that the earth and oceans are "alive" and that there is a need to negotiate with them to be able to live safely (Forth, 1998). Added to the threat of natural disasters, in recent decades the rapid pace and invasive character of industrial development in Indonesia—including mining activities, deforestation, oil palm plantations, cement making, and chemical industries—has resulted in many Indonesians experiencing environmental threats to their homes, farmlands, and ways of life that come from human activities rather than from "nature". Some scholars argue that the root problem of modern environmental degradation is a lack of awareness of the interconnectedness of humans and nature (Bauman et al., 2011, p. 52). This lack of awareness results, in part, from the growing disconnection between people and the land, or what moderns call "nature" or the nonhuman entity "environment" (Northcott, 2015, p. 1). Besides this, there is a lack of awareness of the potential dangers or harms which threaten humans because of environmental degradation. In other words, humans do not realize that the degradation or damage that they are causing in nature is destroying their lives, too.

1.1 Disaster and the Rediscovery of the Importance of Inter-connectedness between Humans and Nature

When humans become aware of the disasters potentially threatening them as a result of their harmful behaviour toward nature, they may realize their interconnected relationship with nature and, consequently, change their harmful behaviour towards it. When faced with the uncertainty of disaster, humans realize that it is important to have a good relationship with nature, as this helps them to deal with hazards (Kemkens, 2013, p. 55; Schlehe, 2008, p. 227). Both the idea of the interconnectedness of humans and nature and forms of human-nature adaptation are present in most traditional religious structures, and religions offer various explanations for how getting relations with nature wrong can cause disasters (Bauman et al., 2011, p. 2; Kemkens, 2013, p. 55). However, the term "disaster" is a large and complex one (Oliver-Smith, 1999, p. 18). Moreover, the complexities of defining the term increase because it is related to many sub-categories, including both natural and man-made environmental hazards. According to Oliver-Smith (1999), a "disaster" can best be defined as an event bearing a "family resemblance" to other kinds of disaster. According to Frerks, Hilhorst, and Moreyra (1999) a natural disaster is:

> an extreme phenomenon; of great intensity and limited endurance; occurring at a certain location; involving a complex interplay between

physical and human systems; causing loss of lives and threats to public health, as well as physical damage and disruption of livelihood systems and society; outstripping local capacities and resources; requiring outside assistance to cope with. (p. 7)

I will adopt this definition of the term in this chapter as it fits the example of a volcanic eruption particularly well.

1.2   The Mount Sinabung Eruptions and the Re-Emergence of the **Mere Buah Huta-Huta-***ritual*

This chapter focuses on one specific case of disaster and its relationship to the notion of the interconnectedness of humans and nature, and does so within the framework of the religious idea of ecology as expressed in ritual. The case which is discussed in this chapter is the re-emergence of the ritual known as *Mere Buah Huta-Huta,* which was practiced by the Karo people in Mardinding village in the context of the Mount Sinabung eruptions in 2010 and 2013. *The* Karo are one of the tribes that live in North Sumatra, and they occupy the north region of Lake Toba known as Karoland or *Taneh Karo* (Rae, 1994, p. 7), which is approximately 2127.25 square kilometres in area. Geographically, Karo Regency lies between 2°50'-3°19' north latitude and 97°55'-98°38' east longitude (Data Statistik Kabupaten Karo [Statistics of Karo Regency], n.d.). Mount Sinabung is a volcano located in Karo District, North Sumatra, Indonesia, at an altitude of 2460 meters above sea level, making it the highest peak in North Sumatra (Pemerintah Daerah Kabupaten Karo [Karo Regency Government], n.d.). At an altitude of 1138 meters above sea level, Mardinding village, located in Tiganderket sub-district, Karo, North Sumatra, Indonesia, is the closest village to the top of Mount Sinabung. Thus, this village is the most threatened by the cold lava which often flows from the top of the mountain.

As Mount Sinabung had not had a recorded eruption for hundreds of years – not since the year 1600, in fact (van Bemmelen, 1949, p. 213) – the Karo people did not see it as a threat to their lives (Siburian & Sinaga, 2016, p. 7). However, on August 26, 2010, Mount Sinabung – surprisingly – erupted. A second eruption occurred on September 15, 2013, and the volcano has been continuously active to this day (Siburian & Sinaga, 2016, p. xi). These eruptions shocked the Karo people living on the slopes of the mountain because they had no collective memory of a Mount Sinabung eruption, as the mountain had been dormant for more than four hundred years.

The eruptions of Mount Sinabung in 2010, and again in 2013, caused extensive damage. 2,209 permanent and semi-permanent housing units were damaged, and 10,408 hectares of agricultural land were covered by volcanic ash and could not be used for a long period of time (Siburian & Sinaga, 2016, pp. 24–25). Besides this, five village meeting centres, 12 public health units, and 79 schools and education facilities were damaged. Of the approximately 20 villages closest to Mount Sinabung, four villages became totally uninhabitable after being covered by volcanic material, including dust, rocks, and other cold lava materials. Additionally, 16 villages came to be located in the danger zone around the volcano. Without a doubt, the impact of the eruptions of Mount Sinabung can be called multi-dimensional, as they impacted socio-economic life, affected people's health, and disrupted children's education. This range of cultural shocks may also help to explain the re-emergence of an indigenous religious ritual.

1.3   Research Problem and Questions

The eruptions of Mount Sinabung after more than 400 years of dormancy provoked a novel response on the slopes of the mountain in the form of a Karonese indigenous religious ritual in many villages on the slopes of Mount Sinabung. In Mardinding village, this ritual was called *Mere Buah Huta-Huta (gift to rocks and trees).* This ritual is rooted in the Karo people's indigenous religious belief, known as *Kiniteken Sipemena* or *Perbegu. Mere Buah Huta-Huta* can be understood as a ritual of giving offerings to certain rocks and banyan trees in the village, which are known as *batang buah* in the Karonese language. The people of Mardinding call the banyan trees and the rocks *Nini,* or "grandparents".

The emergence of the *Mere Buah Huta-Huta* ritual in the context of the Mount Sinabung eruptions is interesting for a number of reasons. Firstly, according to the practitioners of the ritual, this ritual had never been conducted in relation to an eruption of Mount Sinabung. In the past, this ritual had only been conducted in relation to other situations of hardship, such as crop failures or outbreaks of disease. Secondly, this ritual had not been practiced for almost forty years because the Karo religion had, for the most part, been replaced by Christianity in the 1960s, which in this case is represented by the Batak Karo Protestant Church (GBKP). Thirdly, in connection with the Mount Sinabung eruptions this ritual was only conducted twice, once in 2010 and once in 2013. The disappearance of the ritual was related to the conflict between the practitioners of the ritual, who are

Christian, and the organizational leaders of their church, who criticized the ritual as animistic and the practitioners as heretics.

The events sketched above led to the following research questions, which this chapter aims to answer:

1. Why did the *Mere Buah Huta-Huta-ritual* re-emerge in the context of the Mount Sinabung eruptions? How can the ritual be understood in the framework of the need to build interconnectedness with nature?

2. How do the Karo people perceive and relate to nature, based on their indigenous religious beliefs? How can the theories of personhood and interpersonal relations (interconnectedness) between humans and nature by Nurit Bird-David (1999) and Alfred Irving Hallowell (1960) help to explain the perspective of the practitioners of the ritual?

2. The Theoretical Background of the Research: Competing Religious Narratives in the Context of the Mount Sinabung Eruptions

Disasters are multidimensional because they are both physical and social events/processes, and include both slow and rapid onset events/processes. Besides this, it is important to realize that disasters are socially constructed and experienced differently by different groups and individuals, generating multiple interpretations of the event/process (Hoffman & Oliver-Smith, 2002, p. 25). This means that the reality of disaster may result in the emergence of very diverse narratives from various parties who have experienced or witnessed the disaster. Moreover, social constructions or narratives that emerge in the context of catastrophe may conflict with one another (Hoffman & Oliver-Smith, 2002, p. 25).

After a disaster, people often turn to ritual. Ritual after disasters involves a broad category of acts, both individual and collective. In a general therapeutic context, rituals are recommended as an element in the process of handling grief and other emotions following a disaster (Post et al., 1999, p. 1). The ritual that was performed following the eruption of Mount Sinabung can be seen as a communal effort by the Mardinding villagers to overcome their negative emotions, such as tension, sadness, and confusion. The phenomenon of the eruption was a new reality they had not previously imagined. Unfortunately, the emergence of the ritual ignited a conflict with the GBKP, because the ritual was seen as animistic and heretic – and most of the

practitioners of the ritual were members of the GBKP. After the ritual was conducted in 2010, there were no more eruptions for three years. This was the reason they decided to practice the ritual again during the 2013 eruption. To them, it had been proven that the 2010 ritual had succeeded in stopping another eruption from taking place. Furthermore, according to the practitioners of the ritual, the eruption in 2013 happened because the ritual was not conducted regularly every year due to the condemnation by the Church.

To construct the theoretical background of this chapter, the next section will first elaborate on the perspective of the church, which saw the *Mere Buah Huta-Huta*-ritual as animistic. Subsequently, the theories about personhood and interpersonal relations (interconnectedness) between humans and nature by Bird-David (1999) and Hallowell (1960) will be explained in order to understand the ritual not as animistic, but as the way in which the people of Mardinding build interconnectedness with nature in the context of disaster.

2.1 The GBKP's View of the Mere Buah Huta-Huta-*Ritual as Animistic and Heretic*

This study on how the Karo people perceive and relate to nature through the *Mere Buah Huta-Huta*-ritual in the context of the Mount Sinabung eruptions was conducted in Mardinding village, and was motivated by two factors. Firstly, the fact that by the end of 2013 the ritual had disappeared despite continued eruptions of Mount Sinabung (which continue to occur even today) sparked my interest. Secondly, the book entitled *Kabar Dari Tanah Karo Simalem: Kiprah GBKP Melayani Korban Bencana Letusan Gunung Sinabung* (News from Tanah Karo Simalem: GBKP's Work in Serving Victims of the Mount Sinabung Eruption), published by the GBKP in 2016, played an important role (Siburian & Sinaga, 2016). This book is a report on how the GBKP worked to serve people affected by the eruptions of Mount Sinabung. However, one chapter of the book explained how the GBKP struggled to overcome the phenomenon of animism that emerged after the eruptions, which was quite a challenge for the church. The book notes that people from several villages around the foot of Mount Sinabung that were affected by the 2010 eruption immediately carried out the traditional Karo ritual under the leadership of a *Guru Sibaso*, or shaman (Siburian & Sinaga, 2016, p. 136). The emergence of the ritual was seen by church leaders as a sign of the church's failure to maintain the faith of church members, as they

were deviating from the teachings of Christianity (Siburian & Sinaga, 2016, p. 137).

The book by the GBKP also referred to another publication that outlined the views of the church: *Sejarah Gereja Batak Karo Protestant* (The History of the Batak Karo Protestant Church), written by E. P. Gintings.[1] According to Gintings (2015, pp. 234–235), the re-emergence of the ritual was very surprising because it occurred only a few weeks after the August 2010 eruption of Mount Sinabung and many Church members participated in the ritual. However, this practice greatly challenged the church because it considered the ritual to be animistic. Gintings (2015, p. 551) argues that the re-emergence of this ritual of the Karonese indigenous religion was a sign of the ironic fact that, even though Christianity had entered the land of Karo more than a century ago and the Karo people had become Christians, in their minds the beliefs in the spirits of nature and the spirits of their ancestors still existed. Gintings also concludes that it seems very difficult for Karo people to rid themselves of their traditional beliefs. According to Gintings, throughout its history, the GBKP has repeatedly struggled with the problem that members of the congregation continue to practice Karonese indigenous rituals. Furthermore, Gintings (2015, p. 552) argues that the re-emergence of the ritual occurred because of what he perceives as an incorrect theological understanding in society. According to Gintings, congregants were unable to distinguish between the concepts of "the devil" and "evil". According to the people who performed the *Mere Buah Huta-Huta*-ritual, the eruption happened because of the power of the devil, similar to an ancestral spirit or natural spirit who is angry because they are not worshipped by people anymore. However, according to Gintings, eruptions or chaotic situations should be seen as evil because of the natural cycle of Mount Sinabung. Gintings also argues that an eruption is not the work of the devil because it still in God's control, just as all the universe is in God's control. Therefore, according to Gintings, it was the inability to distinguish between the devil and evil in the midst of an eruption that made the people on the slopes of Mount

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[1] Ps. E.P. Gintings was a chair of the GBKP Synod from 1995-2000. He wrote a book about Karo *adat* and how the church should respond to the Karo people's traditional beliefs. In his latest book, *Sejarah Gereja Batak Karo Protestant* (The History of the Batak Karo Protestant Church), published in 2015, he wrote quite extensively about the emergence of traditional Karonese beliefs after the eruption of Mount Sinabung. Gintings' (2015) view on this is used to show the general view of the GBKP on the appearance of the ritual after the eruption of Mount Sinabung.

Sinabung fall into animistic practices and, according to the church, into heresy.

Reflecting on the larger context, it is clear that the process of the infiltration of Christianity into Indonesian people's lives or their ethnic group was not uncomplicated. Missionaries from the West who brought Christianity to Indonesia realized that they were faced with a social system which was already firmly formed and bound every person to a cultural code, or *adat*, which also contained its own beliefs (Schreiner, 2003, p. 1). Furthermore, according to Schreiner (2003, p. 4), the encounter between Christianity and *adat* played an important role in changing the social system of society, especially as it led to attempts to eradicate the belief systems of those ethnic groups in Indonesia considered heretic or animistic by missionaries.

In the context of Batak society, Schreiner (2003, p. 6) believes that the encounter between Christianity and the Batak people caused a fundamental change in the Batak peoples' lives, especially when it came to their religion. Schreiner argues that Christianity attempted to separate culture and belief; in other words, that it tried to separate the Batak people from their culture because their culture was seen as animistic. However, there were also efforts to "elevate" some of the *adat* customs, which could be used as social capital, as long as there was no indication of animism contradicting Christian teaching (Schreiner, 2003, p. 6). Throughout, certain conditions, such as disasters, made the Batak people who had become Christian return to their traditional religion (Schreiner, 2003, p. 7). Furthermore, it should also be noted that the different groups of Batak people (Batak Toba, Batak Angkola, Batak Pakpak, Batak Karo, and Batak Simalungun) have similar characteristics: beside genealogical characteristics such as a kinship system, a patrilineal family structure, and a system of exogamy, their traditional religion revolves around worshipping ancestor spirits (Schreiner, 2003, p. 7).

In line with what Schreiner (2003) argues, the encounter between Christianity and the Karo people had always caused friction, right from the first missionary activity in the 1890s until the re-emergence of the *Mere Buah Huta-Huta*-ritual in Mardinding and other rituals in villages around the slopes of Mount Sinabung. It is in this context that the GBKP developed its theology of religion. In theological studies, this concept refers to the way in which one religious community responds (positively or negatively) to the reality of religious and belief pluralism using their faith language (Harmakaputra, 2014, p. 3). A community's theology of religion determines how that community

will deal with and interact with other religions or beliefs (Harmakaputra, 2014, p. 3).

The missionaries who pioneered Karonese christianization found that the Karonese indigenous religion (*Perbegu*) was the biggest obstacle in carrying out the task of christianizing the Karo (Jawak, 2014, p. 257). According to Nikolas Pontoh, one of the first gospel teachers to assist pastor Kruyt in the early days of doing missionary work among the Karo people, the Karo people lived a life in which their customs and beliefs were united in a unified whole (Jawak, 2014, p. 257). Pontoh explained in his notes that the Karo people believed that man consists of a body and *tendi*, or "spirit" (life force). According to the Karo, *tendi* does not only exist in human beings, it can also exist in other subjects such as trees, rocks, iron, or other natural objects. However, not all trees or rocks have *tendi*: people determine which trees and rocks have *tendi*, through experiences of shock or of the miraculous in encounters with them (Jawak, 2014, p. 258). The Karo people also believe in *Begu* (the spirit of the deceased). The *tendi* of a man who dies becomes a *begu*, but can still be contacted during a special ceremony for calling the soul or spirit of the deceased person to the house, led by a shaman. The *tendi* is then consulted for the benefit of the children and family he left behind (Jawak, 2014, p. 259).

The belief system existing in Karonese society and the missionaries' theological background made the approach used in the christianization of Karo society quite a harsh one. The theological background of the Dutch pastors was Dutch Reformed, and also highly pietistic (Cooley, 1976, p. 4). The missionaries in this ministry strongly emphasized the need for the Karonese to abandon their traditional beliefs, which Christian missionaries viewed as pagan. The Karo people were invited to accept Jesus, rid themselves of their pagan beliefs, and live according to the Ten Commandments. Christians, furthermore, were called "children of light" while those who still followed traditional beliefs were referred to as "children of darkness".

Consequently, the re-emergence of this Karonese indigenous religious ritual caused a decisive response on the part of the church. Indeed, as stated in the church ordinance, all forms of Karo indigenous beliefs and ritual were banned. In Mardinding, the GBKP initially refrained from taking measures against the congregants who had participated in the ritual. Initiators, *gurus*, or practitioners who were actively involved in the preparation and implementation of the *Mere Buah Huta-Huta* ritual and insisted on continuing

to perform it after 2010, however, were subjected to special pastoral treatment ("shepherding") by the church. The GBKP reacted this way because it considered the ritual to be animistic. The indigenous religion of the Karo people is seen, by the church, as revolving around the worship of more than one God – and, thus, as a belief system that goes against a central tenet of Christianity. For this reason, the church set about bringing the congregation back to what they considered to be the true teaching. In doing so, the GBKP hoped that the traditional Karo ritual practices that they considered to be animistic would no longer be performed.

Concerning the Karonese indigenous belief (*Perbegu*), the ordinance of the GBKP (Tata Gereja GBKP, 2005-2015) states that:

> If there are members of the congregation who carry out indigenous beliefs (animism) such as: worshipping or using special objects to seek salvation, erpangir ku lau, berdukun (shaman practice), niktik wari, cabur bulung, petalayauken (rembah ku lau), ndilo wari udan, nengget, perumah begu, canal rings, ersilihi, nobody begu jabu, paguh-paguhen, simalang ate, pengelaris, lapik, and others, then the person involved must be reprimanded and receive pastoral treatment. (Chapter I, I:2)

This rule is followed by five articles of explanation:

a. If the person regrets his actions when reprimanded and guided, then he is not subjected to special pastoral treatment (shepherding).
b. If he does not regret his actions, he shall be subjected to special pastoral treatment (shepherding) for the period set by the Assembly and approved by BP Klasis.
c. If the person also does not regret his actions after undergoing special pastoral treatment (shepherding), the person will be excommunicated from the church, which will be declared in a letter of the Assembly and approved by BP Klasis, which will then be proclaimed in the Sunday service.
d. In certain cases, the person in question may be re-admitted as a member of the GBKP if he has expressed his regret in writing and in front of the congregation. In such cases, the member can be re-admitted as a member of the GBKP if he has completed catechism lessons within a minimum period of 6 months, received in church with special liturgy. (Chapter I, I:2)

Examining the church's response to the ritual and other Karo indigenous beliefs shows that the church's struggle with Karo society and its traditional

beliefs stems from the values of Christian theology held firm by the GBKP. Many practices in the Karo religion revolve around a belief in multiple gods and ancestral spirits, and are opposed by the church because of their deviation from the central tenets of the GBKP (Cooley, 1976, p. 124).

2.2 Theoretical Framework

The church succeeded in stopping the indigenous practice, so we may conclude that the religious narratives in the community concerning the eruptions of Mount Sinabung were eventually dominated by the church. However, the residents of Mardinding also have their own narrative concerning the rituals that were performed in 2010 and 2013. The practitioners of the rituals have an explanation as to why they carried out the rituals even though the church condemned them as heretical, and attribute their own meaning to the rituals. Because of this, they were upset when their practices were accused as being heretic and when they received negative stigma in society. Karo religious traditions such as the *Mere Buah Huta*-Huta-ritual, however, enrich our understanding of the Karo people, who were strengthened by this ritual in the face of the eruptions. In the past, whenever situations of hardship occurred, such as crop failures, outbreaks of disease, or a very long dry season, people in Mardinding always conducted the *Mere Buah Huta-Huta*-ritual, because they believed that the ritual would end the disaster. This is in line with Bagus Takwin's (2007) assertion that the religious narratives of local communities, or "root narratives", are a way to explain how local communities experience the reality around them based on their collective knowledge (p. 91). Generally, the religious narratives of the world's traditional societies are a place where all entities are interconnected and influence each other.

According to the GBKP, the concept and practice of the traditional rituals of the Mardinding community are problematic because, in their view, there cannot be any god, *Ilah*, or other spirit that can be worshipped other than the Christian God. The church's critical view of the ritual as animistic resonates with E.B. Tylor's (1871, pp. 424–425) interpretation of animism, who saw traditional religion as a belief in spiritual beings. Tylor found that, in "primitive" societies, there is a belief that not only humans have souls, but that souls can also be found in other living things and inanimate objects (Dhavamony, 1995, p. 66). Because of this understanding, the GBKP took a strong stand and rejected the re-emergence of the *Mere Buah Huta-Huta*-ritual

in Mardinding, as, in the church's view, the beliefs that underlay these ritual practices were unreasonable and deviated from church teachings.

Using Nurit Bird-David's (1999, pp. 77–78) perspective put forward in her article "'Animism' Revisited: Personhood, Environment, and Relational Epistemology", however, the accusations can be understood as part of the church's tendency to consider animism as an ontology rather than as a relational epistemology. Through her research on the Nayaka community in South India, Bird-David (1999, p. 77) found that animism and other ancestral religious practices did not necessarily revolve around the worship of spirits, but were about forming relationships. In the social life of the community, the Nayaka deeply value the practice of sharing space, objects, and actions with others (Bird-David, 1999, p. 72). The Nayaka also recognize the concept of *nama sonta* (which can be translated as "our brothers"), which refers to the person or non-human person with whom a Nayaka shares a living space and other related spaces (Bird-David, 1999, p. 73). Interestingly, then, the Nayaka understanding of personhood is not limited to humans: other non-human subjects, such as forests or trees, may also become brothers to the Nayaka, meaning that there is an extension of personhood in the life of the Nayaka community. This perspective was adopted and developed by Bird-David from Alfred Irving Hallowell (1960, p. 18). In his research on the Ojibwa Indian community in America, Hallowell found that kinship terms such as "grandfather" were attached not only to humans but also to non-human persons such as rocks, lightning, and thunder. This kind of understanding allowed Ojibwa people to build interpersonal relationships with human and non-human persons (Hallowell, 1960, pp. 20–21; Maarif, 2014, p. 153).

In relation to the re-emergence of the *Mere Buah Huta-Huta*-ritual in Mardinding, it is clear that it was out of the question for the church to perform rituals for wood, rocks, and trees because, in their view, there was no spirit behind the wood or the rocks. Mardinding villagers, however, call wood, rocks, and trees *Nini*, or "grandparents". From the perspective of the GBKP, the practitioners of the ritual, who were mostly congregants, deviated from the teachings of the church and violated church regulations by taking part in the ritual. However, in the relational epistemology referred to here, the ritual performed was not a matter of the spirit behind the wood and the rocks that was in need of worship, but was about forming a relationship with natural persons in order to understand things that are happening in human life or the Mardinding community. In rituals, the actions performed and offerings given can be understood as a form of communication, and as the exchange of goods

and services to establish or maintain relationships between humans and the natural persons or subjects with which humans feel the need to relate (Dhavamony, 1995, p. 215). In the end, the narrative of the practitioners of the ritual, the church's rejection of the ritual, and the theological narrative of the church in understanding the eruptions, should be seen as equal. These narratives can be seen as a diversity of religious stories which are used to understand the reality of the eruptions.

3.   Method

The GBKP's condemnation of the *Mere Buah Huta-Huta*-ritual as animistic and heretic is rooted in a particular theological paradigm. It is well-known, however, that in the context of disaster, people can use religion to understand, give meaning to, adapt to, and control nature. Religious beliefs, narratives, and practices are often drawn on as a way to understand disaster (Kemkens, 2013, p. 55). Disaster may also give rise to traditional cultural or indigenous constructions of nature and, thus, in Schlehe's (2008) view, "nature is constructed as parallel to human society, and it is anthropomorphized, in close associations between cosmos, morality and social conduct" (p. 227). Interestingly, Schlehe (2008) also found that in Java, the natural and human worlds are thought to be interconnected. One example of the concept of the interconnectedness of the human world and the natural world is the belief that people's immoral behaviour can result in volcanic eruptions. Volcanic eruptions, furthermore, can signify political change (Schlehe, 2008). This is because the natural world, the cosmos, the human world, morality, and social conduct are often thought of as interconnected. This idea stems from the fact that nature is viewed as a source of life, harmony, and beauty as well as uncertainty, danger, and destruction (Kemkens, 2013, p. 56).

If the church has its narratives, it is clear that practitioners also have their own stories. The central hypothesis of this chapter is that those who practiced the *Mere Buah Huta-Huta*-ritual in the context of the Mount Sinabung eruptions wished to build interconnectedness with nature. This chapter is based on research conducted for my master's thesis, entitled *Pasang Surut Eksistensi Kepercayaan Tradisional Karo Pasca Erupsi Gunung Sinabung 2010 Sampai 2013: Studi Kasus di Desa Mardingding Kec. Tiganderket Kab. Karo Sumatera Utara* (The Rise and Fall of Karo Batak Traditional Beliefs after the Mount Sinabung Eruptions 2010-2013: A Case Study in Mardinding village, Tiganderket, Karo District, North Sumatra) (Tarigan, 2018). The research was

not done at the moment that the *Mere Buah Huta-Huta*-ritual was conducted, but after the ritual had disappeared because of conflict with the GBKP. Specifically, the thesis took the contestation over the narratives of the church and the ritual practitioners as an entry point to discuss, in an in-depth manner, how the Karo people perceived and related to nature in a time of calamity, based on their indigenous religious beliefs, as expressed in the *Mere Buah Huta-Huta*-ritual.

To investigate this, in-depth life story interviews were conducted, between November 2017 and January 2018, with practitioners of the ritual and representatives of the church in Mardinding. The life story method is a phenomenological approach in interviewing, which focuses on the informants' understandings of their life experiences and the significance they attribute to them (Chaitin, 2004, p. 3). The primary source of information for the practitioners' narrative presented in this chapter is Nd. Salomo Br Sitepu (65 years old).[2] She was the shaman ('guru' in the Karonese language) who led the Mere Buah Huta-Huta-rituals in Mardinding in 2010 and 2013.

4.   Result: The Karonese Indigenous Religion and the *Mere Buah Huta-Huta*-Ritual: The Karo People's Way of Building Interconnectedness with Nature

As the *Mere Buah Huta-Huta*-ritual is rooted in Karonese indigenous religious belief, the next section will first briefly describe the Karonese indigenous religion and its beliefs. After that, it will explore the perspective of the practitioners of the *Mere Buah Huta-Huta*-ritual.

4.1   The Indigenous Religion of Karo
Before the presence of world religions such as Christianity and Islam in Karo, the Karonese people had their own beliefs known as *Kiniteken Sipemena* or *Perbegu. Kiniteken Sipemena* is a form of belief in the spirits of ancestors and the various magical powers that Karoans encountered in natural objects such as rocks and large timber trees. The term *begu* is rooted in Sanskrit *bergu*, or

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[2] Nd. is an abbreviation of word *Nande,* meaning "mother". Thus, "Nd. Salomo" means "the mother of Salomo". Among the Karo people, the name of the firstborn child of a woman becomes a nickname of the woman. In this study, Nd. Salomo Br Sitepu was the main informant of the research.

"spirits of the deceased", while the spirits of living people are called *tendi* (Jawak, 2014, p. 161; Milala, 2008, pp. 25–26).

Perbegu is a belief system that does not distinguish between categories such as "religion", "magic", "custom", "culture", "belief", or "ritual". Instead, all of these elements are integrated into the Karonese people's social system. *Perbegu* also does not have a holy book or any particular religious doctrine. *Perbegu* focuses on the problem of the existence of *begu-begu*, or "spirits of dead people" (Rae, 1994, p. 18). In the Karonese traditional religion the deceased continue to exist because their *tendi* become *begu*, while their body merges with nature and becomes new entities (Rae, 1994, p. 19). This can be seen from the Karo proverb:

Tendi jadi begu	soul becomes spirit or ghost
Buk jadi ijuk	hair becomes fibers
Jukut jadi taneh	flesh becomes soil
Tulan jadi batu	bone becomes rock
Dareh jadi lau	blood becomes water
Kesah jadi angin	breath becomes wind

Tendi is seen as the life force of a person. *Tendi* is also a factor that distinguishes humans from animals, as the *tendi* refers to the spiritual dimension or spirituality (*kinitendin*) of man. A saying in the Karo language, "*manusia lain asangken rubia-rubia erkiteken kinitendinna*" (humans are different from animals because of their spirituality) illustrates this. Rae (1994, p. 19) has stated that, in Karo belief, the *tendi* can leave the body or be snatched away by those with an evil influence or force, causing a person to fall ill, faint, become unconscious, or even die, depending on the period of the *tendi*'s absence. However, although the *tendi* is understood as a life force that distinguishes humans from animals, the *tendi* can also exist in certain (large, non-animal) living organisms, such as trees, or even in certain inanimate objects considered to have great power based on human experiences with those organisms or objects (Rae, 1994, p. 20). For example, in Karonese society, rice is thought to have a very strong *tendi*. Therefore, in Karo ritual belief, rice is used to strengthen a human's *tendi* (*mpiherken tendi*). This can be seen in the healing rituals performed on long-ailing people who are believed to have been affected by destructive forces (Rae, 1994, p. 20).

Further, in Karonese cosmology, it is believed that the afterlife or the life of the *begu*, is similar to the life of a living human being in this world. Thus, *begu* are thought to live in places similar to human villages. There they work, and the work that a person does while living as a human being will also be his

work in the afterlife. So if in the past a person lived as a farmer, then as *begu* he will also keep working as a farmer, or if he was a thief, then he will continue to be a thief in the afterlife (Rae, 1994, p. 21). Besides this, according to Kalvinsius Jawak, Karonese indigenous belief was influenced by Hinduism. This can be seen in the concept of *Dibata*, which was adopted from the concept of *Devata*, or "God" in Hinduism, and in the notion that humans cannot reach God (Jawak, 2014, p. 169). Because of this belief, in various rituals the *gurus* usually say a prayer that goes "*Nusur kam o Dibata si ni datas, nangkih kam o Dibata si ni teruh, kundul kam o Dibata si ni tengah*" (Descend thee God above, go up thee God down here, and sit thee God, in the centre). This prayer also shows that the idea exists in Karonese belief that God is in control of the three realms: the highest realm (which is unreachable to man), the realm of human life today (described in the prayer as "in the centre"), and the underworld, or the realm of death. The assimilation of Karo and Hindu beliefs makes the Karo people accept the concept of *Dibata*, or "God". However, Karonese people also believe in the ancestral spirits and objects that are considered to have power and are the embodiment of the presence of God or God's servants. They believe in God/*Dibata*, but besides this, they believe that there are representations of God/*Dibata* that can be found by humans in their lives. These representations of the Lord, or God's servants, listed below, are in charge of helping, guarding, watching, blessing, treating, and punishing humans (Jawak, 2014, p. 172):

1. *Buah Huta-Huta* is a large banyan tree called *Batang Buah*, which is located in the middle of the village. This tree usually grows by itself or is planted for use as a place of offering in special ceremonies that are usually done once a year or when there are things that are unprofitable in the village, such as when the agricultural crops are plagued by pests (e.g., rice fields infested by rats). A shaman, or *guru*, leads the ceremonies and the whole village community helps in providing various offerings to *Nini Buah Huta-Huta* (Jawak, 2014, p. 173).

2. *Silan* is a place (for instance, a river, forest, or mountain) that is considered sacred or haunted because people believe that there are supernatural beings that live there. For that reason, the people who go to the *silan* should maintain decency and speak politely, and are forbidden from cutting down trees and killing animals; breaking these rules is thought to result in being punished with disease, madness, or even death. On entering the *silan* area, a person must *ersentabi* (plead permission) by giving an offering of a sirih leaf or cigarette, and must verbally request permission to enter the area (Jawak, 2014, p. 173).

3. *Pagar*, or *Nini Pagar*, is the ancestors' spirit, which is believed to be the protector of the community in a village. Its form can be a large clump of bamboo that is believed to protect the village from catastrophe. The Karo people hold offering ceremonies to *Nini Pagar* at specific periods (Jawak, 2014, p. 173).

4. *Begu* usually refers to the spirit of the deceased. The deceased person is believed to still be able to keep in touch with humans or his family through his spirit or *begu*. In Karo belief, *begu* can either function as protectors or bring adverse effects through disrupting the lives of living humans. *Begu* that play a protective role are called *begu jabu* (family guard), and come from a close family member who has died. The Karo people believe that they must reverence *begu* through ceremonies and offerings (Jawak, 2014, p. 175). A spirit can also be considered *begu jabu* depending on how the person died (Jawak, 2014, p. 174):

   a. A baby who died in the womb is called *Begu Butara Guru*
   b. A baby who died before developing teeth is called *Begu Bicara*
   c. A person who suffered a sudden death, for instance as a result of murder or an accident, is called *mate sada wari*. The *mate sada wari* is referred to as *Begu Perkakun*, and is believed to keep the family from various types of harm. *Gurus* are also usually followed and protected by *Begu Perkakun*, or a *begu* that is called to help make a ritual successful.

Interestingly, the concept of God in the Karo religion is abstract and concrete, as well as transcendent and immanent. The Karo people believe that there is an invisible God who cannot be reached by people; however, they also believe in the concept of an immanent God or *Dibata* who is embodied in the kinship system (*kalimbubu*), for instance in the father and brother of the wife of a Karo man, the family of his mother or grandfather, and his uncle on his mother side. The *kalimbubu* is referred to as *Dibata Ni Idah* (visible God), because the Karo people believe that the *kalimbubu* is a source of greatness or blessing. Therefore, everyone should respect, help, and follow its members' suggestions and advice when asked (Rae, 1994, p. 10).

4.2   *The* Mere Buah Huta-Huta-*ritual in Mardinding*

Before Christianity, as represented by the GBKP in Mardinding, the life of the Karo people in Mardinding was preoccupied with the various religious activities related to their culture. According to shaman Nd. Salomo Br Sitepu

in the interview dated November 24, 2017, for as long as she can remember, every time there were (looming) disastrous, distressing, or threatening events in the village, such as the threat of crop failure due to a rat infestation, or an outbreak of disease, Mardinding villagers would perform the *Mere Buah Huta-Huta*-ritual. The villagers would ask the village head and ritual leader to perform the ritual. They would start by giving the offerings of *belo siwah sepulusa* (betel leaf and betel-based fruits according to the Karonese tradition, such as lime, gambier, areca nut, tobacco, and candlenut) and cigarettes. The *guru* would then raise the petition to *Nini Buah Pengasen* and other *Nini*, such as *Nini Perteguhen*, *Nini Lau Sumangen*, *Nini Barus*, *Nini Malim*, and *Nini Batu Renggang.* As was stated above, *Nini* means "grandparents"; the first five *Ninis* are banyan trees, and the last one, *Nini Batu Renggang*, is a large rock which is split down the middle. It is believed that, in the past, *Nini Batu Renggang* could swallow livestock such as chickens, pigs, or goats.

Likewise, when there was an outbreak of smallpox or *rimahen-rimahen* in Mardinding, villagers would immediately perform the ceremony known as *ncibali*. In this ritual, the villagers would complain about the disease and ask for help from the *Nini* so that the villagers would be healed. Soon after the ritual was performed, according to Nd. Salomo Br Sitepu in the interview of November 25, 2017, the citizens would be healed. Similarly, if there was a very long drought, some villages near Mardinding would usually perform a ritual known as *ndilo wari udan* (literally, "call rain"). If the rain did not come, then the inhabitants of these villages would immediately request that Mardinding residents carry out the *ndilo wari udan*-ritual. All these rituals were carried out through communal conversation between *adat* leaders and the people of Mardinding.

The re-emergence of the *Mere Buah Huta-Huta*-ritual is interesting because it appeared in a community of people who have embraced world religions such as Christianity and Islam (and, in Mardinding, predominantly Christianity as represented by the GBKP). The presence of these large religions has made traditional Karo societies with their various rituals disappear. The *Mere Buah Huta-Huta*-ritual had not been practiced in Mardinding for almost forty years, and its re-emergence is all the more interesting as it had not been practiced in relation to an eruption of Mount Sinabung in the past. The appearance of this ritual was also accompanied by narratives directly related to Mount Sinabung and the importance of the *Mere Buah Huta-Huta*-ritual, as the people in Mardinding treated the eruptions as a "small" disaster which could be overcome through performing *Mere Buah Huta-Huta* as they had done in the past.

In the ritual performed in 2010 (three weeks after the eruption), *guru* Nd. Salomo prayed to the *Nini*:

> *Kerina kam Nini ena: Perangin-angin, Ginting, Karo-karo, pagarindulah kerina kutanta enda ula kari dem batu kutanta enda, ntah banci denga kami mulih, dalanndu lah dalani, ula nimpang ku kuta kami, bakerahna lah dalani, ntah banci ndega kami pagi mulih, ula min pagi batu kuta kami enda* (All of you *Ninis*, both in this village who became the founders of Mardinding village, and *Nini Raja Nangkih* from the top of Mount Sinabung surnamed *perangin-angin*, and the other *Nini*, *Ginting*, and *Karo-Karo*, please help and protect this Mardinding village and do not let the village be destroyed by rocks and cold lava, please let the cold lava pass on its course and not enter our village, so that later when the eruption stops we can go back to our village). (Nd. Salomo br Sitepu, interview of November 25, 2017)

Then *Nini Buah Pengasen* answered: "*Kutanta enda lo pagi suh, emaka inget kena lah mestaken ras mesai kami*" (Our village of Mardinding will not get cold lava or the fatal results of the eruption of Sinabung, so you should never forget to put on celebrations for us and clean our area).

Picture of Nini Batu Renggang: a large rock which is split down the middle. It is believed that, in the past, *Nini Batu Renggang* could swallow livestock such as chickens, pigs, or goats.

Pictures of *Nini Perteguhen* and *Nini Malim*, both huge Banyan trees like another three Nini *Nini Buah Pengasen*, *Nini Lau Sumangen*, *Nini* and *Barus*.

4.3   Understanding the Narratives of Ritual Practitioners from an Indigenous Religious Perspective

To understand the religious narrative of the practitioners of the ritual, Bird-David's view of Tylor's understanding of animism is very important. According to Bird-David (1999, p. 68), Tylor's understanding of animism as an epistemology that sees ancestral religious practices as revolving around the worship of spirits is no longer adequate, for animism is itself a complex reality or phenomenon. Through her research on the Nayaka community in South India, Bird-David (1999, p. 77) found that animism or ancestral religious practice does not necessarily centre on the worship of spirits, but is a form of relating to beings or things. In their community, the Nayaka profoundly value sharing space, objects, and actions with others (Bird-David, 1999, p. 72). The Nayaka also recognize the concept of *nama sonta* (our brothers), which refers to the person or non-human subject with whom a Nayaka shares a living space and other related spaces (Bird-David, 1999, p. 73). Interestingly, then, the *Nayaka* understanding of personhood is not limited to humans: other non-human subjects, such as forests or trees, may also become brothers to the Nayaka, meaning there is an extension of personhood in the life of the Nayaka community.

In her study, Bird-David (1999) argues that Western scholars understand animism as an epistemology that fails to (fully) understand the world. This is because their notion of animism is limited to the view that humans can only form interpersonal relationships with other humans, and not with other natural subjects, let alone ones built on a kinship framework. Drawing on her work among the Nayaka, however, Bird-David argues that animism is a relational epistemology. Bird-David (1999, p. 78) asserts that, in ancestral religions, man comes into existence not only because he thinks (I think, therefore I am), but that humans also understand themselves through their relationships with humans, non-human persons, and with the world (I relate, therefore I am/I know as I relate).

With Bird-David's (1999) approach in mind, it is clear that the rituals performed by the villagers of Mardinding were also based on the desire to build relationships (interconnectedness) with nature (the *buah huta-huta*), as was done regularly in the past. Due to fact that practitioners in Mardinding share a living space with the *buah huta-huta*, which they consider to be non-human persons (they refer to the banyan trees and rocks as *Nini*), they have

the experience of living together. As a result, the banyan trees and the rocks are no longer merely natural objects, but are respected as individuals.

5.   Conclusion

It is clear that at the time of a disaster, people live in uncertain conditions. This uncertainty forces people to deal with the disaster, adapt to it, or even control it (Kemkens, 2013, p. 56). Accordingly, various narratives may appear, often religious narratives. In the context of the Mount Sinabung eruptions, various religious narratives emerged, mainly from the GBKP and the practitioners of the Karonese indigenous religious ritual known as *Mere Buah Huta-Huta*, most of whom were also members of the GBKP. Conflict between the two narratives was inevitable, as the church condemned the ritual as animistic and characterized the practitioners as heretics. Nd. Salomo Br Sitepu indicated, the ritual was only conducted twice, once in 2010 and once in 2013, whether the eruptions continued to happen or not. According to the shaman, however, in order to stop the eruption, the ritual would actually have had to be conducted every year (Nd. Salomo Br Sitepu, interview dated November 25, 2017).

"Withered before blooming" may be an appropriate phrase to describe the re-emergence and disappearance of the *Mere Buah Huta-Huta*-ritual. However, the deeper meaning the practitioners attached to the ritual is even more interesting to study than the story of its re-emergence and disappearance. The field research conducted for this study shows that, in the past, this ritual was conducted in times of calamity or hardship, such as crop failure, outbreaks of disease, and long periods of drought. The *Mere Buah Huta-Huta*-ritual shows that the people of Mardinding strive to build interconnectedness with nature, through certain banyan trees (*batang buah*) and rocks which they call *Nini* (grandparents). The term *Nini* itself shows that the people of Mardinding perceive those trees and rocks to be part of their kinship system, while the ritual demonstrates that interconnectedness with nature is seen to determine their lives and their survival, especially in situations of hardship. Therefore, it is clear that even though practitioners were accused of performing animistic rituals and considered heretics, an alternative understanding of the ritual exists. Finally, this chapter argues that this kind of interconnectedness between humans and nature plays a pivotal role in encouraging humans to preserve the environment.

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CHAPTER 5
ADAT ECOLOGY:
THE PRACTICE OF *SASI* ON HARUKU ISLAND, MALUKU, INDONESIA

Ribka Ninaris Barus

Abstract

Although indigenous ecology has been acknowledged as a more capacious perspective on human-nature relations, it is arguable that scholars pay insufficient attention to local people's perspectives. Many scholars acknowledge indigenous ecological practice as merely a form of natural resource management that in turn falls into the anthropocentric paradigm. This article examines an indigenous ecological practice, called *adat* ecology, particularly *sasi* practice in Central Maluku Regency, Indonesia, from the perspective or world view of the local community. Using the qualitative method, the data collection was done through in-depth interviews, observation, and through literature. This research finds that for the locals *sasi* is not merely an ecological practice for the sake of human interest, but it is a concrete action in maintaining the relationship among all in order to maintain the stability of the cosmos. Therefore, the concept of *adat* ecology based on this study is centered on the inter-subjective relationships of all beings, which are reciprocal and mutually responsible in preserving the regularity of the cosmos.

Keywords: Ecology, *Adat*, Indigenous Community, *Sasi*, Haruku

Introduction

The environmental crisis is one of the most pertinent global issues that humanity is currently facing. For centuries, as shown by many scholars, one of the fundamental aspects that trigger this problem is the anthropocentric paradigm, where humans are placed at the center of the world, and other beings are seen as objects for human use (White, 1967). This paradigm holds that only humans have intrinsic values and the value of other beings in the universe can only be determined by their usefulness to humans (Keraf, 2002,

p. 26). Many scholars have argued that the root of ecological problems lies in this myopic paradigm of relations between humans and non-human beings (Borrong, 2009; Chang, 2007; White, 1967).

In contrast, indigenous communities, which have been politically marginalized in many places around the globe, provide critical inspiration for a new paradigm in rethinking the human-nature relation. Indigenous ecological knowledge does not recognize anthropocentric motives for environmental preservation, in which the value of preserving nature (water, land, animals, plants and other resources) is intended for humans' interest (Wilkinson, 2002, p. 365). Rather, it emphasizes ethical values which ensure that all beings in nature enjoy equal status (Kelbessa, 2005, p. 19).

Moreover, scholars have shown the significance of indigenous knowledge regarding environmental issues that is expressed through various forms such as ritual, norms, and practices (Grim, 2001). Indigenous knowledge provides environmental norms which can be integrated into modern knowledge or education. As Grim (2001) states, the "study of environmental imaginaries among indigenous religions opens contemporary dialogues between indigenous traditions and contemporary intellectual currents in ways that may be mutually beneficial" (p. xli). Furthermore, Pierotti and Wildcat (2000) explain that, in contrast to modern perspectives which assume humans as superior and separate from nature, indigenous ecology is a perspective which upholds the following tenets:

> (1) respect for non-human entities as individuals, (2) the existence of bonds between humans and nonhumans, including incorporation of nonhuman into ethical codes of behavior, (3) the importance of local places, and (4) the recognition of humans as part of the ecological system, rather than as separate from and defining the existence of that system. (p. 1335)

There is growing recognition of the potentially significant role of indigenous ecological knowledge and practices in the context of Indonesia's growing environmental problems. The Indonesian government agency responsible for environmental protection and management (Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia or KLHK) recently acknowledged the importance of local wisdom in environmental management. Article 1 verse 30 states of the 2009 Indonesian government law on environmental protection and management states "*Kearifan lokal adalah nilai-nilai luhur yang berlaku dalam tata kehidupan masyarakat untuk antara lain melindungi dan mengelola lingkungan hidup secara lestari*" (Republic of Indonesia, 2009). In

English this translates as "Local Wisdom shall be the noble values that are applicable in the life of local community in order to protect and manage the environment on a sustainable basis". Furthermore, some Indonesian scholars have shown the significance of indigenous ecology in managing and preserving the environment (Akbar, 2015; Hastanti & Yeni, 2009; Maarif, 2015; Siswadi et al., 2011).

Many scholars acknowledge indigenous ecological practice as a form of natural resource management which is beneficial for environment management and conservation (Boli et al., 2014; Elfemi, 2015; Kaihena, 1988; Karepesina et al., 2013; Mantjoro, 1996; Novaczek et al., 2001). However it is arguable that in merely acknowledging indigenous ecology as another form of environmental management, contemporary researchers still represent the anthropocentric paradigm which is oriented for human interest (see Utina, 2012; Karepesina, 2013; Elfemi, 2015; Tamaratika & Rosyidie, 2017). Meanwhile, if we explore the meaning of an *adat* practice (helpful to first explain what is adat before using it and give a reference) based on the perspective of local communities, there will be values of a belief that are interpreted by the community not merely as an ecological practice for the benefit of humans, but as a social order in their cosmology. Therefore, this paper emphasizes the perspective of a local community in interpreting their *adat* practice, which in this paper is referred to as *adat* ecology.

Adat is an Indonesian term referring to the practices, norms, beliefs, knowledge systems, wisdoms, social systems, law, etc., which are inter-mingled with each other, and preserved from generation to generation by particular tribes. In general, it can be understood as a way of life in which people interact with each other as well as interact with the environment (nature), *i.e.* as ecology. This paper focuses on the indigenous ecological management method of *sasi*, as practiced in Haruku Village, on Haruku Island, Central Maluku Regency, Indonesia. *Sasi* is an indigenous practice used throughout Maluku to regulate relations among humans, humans and nature, and humans and their ancestors. It ensures fluid relations between humans and non-human as well as demonstrates respect of shared time and space among all beings. *Sasi* is an *adat* practice which prohibits people from harvesting natural products, such as fruits and fish, for a certain period of time (3-6 months).

While scholars – such as Kaihena (1988), Mantjoro (1996), and Elfemi (2015) – have recognized the practice of *sasi* as ecological, they have not, with

adequate depth, examined the belief system underlying *sasi*, as the local people perceive it. For the most part, scholars who speak on the subject disregard the rationale and local perspective or "world view" (Redfield, 1952) of this practice, so the ecological meaning shown is actually still anthropocentric. How do the Haruku people perceive their indigenous practice, and how do they grasp their relationship with other beings/things through *sasi*? What is the significance of ecology according to Haruku people based on the practice of *sasi*? Is it for the sake of human interest, as the scholars pointed out, or other else? To answer these questions, I analyze *sasi* from the perspective of the local people. Answers to these questions are expected to show and confirm how the ecological meaning of an *adat* practice is different if viewed from the perspective of local communities.

Primary data for this study were sourced from field studies and secondary data from literature studies related to the subject. Field research for this paper was carried out in Haruku Village, Central Maluku Regency in three stages: May-July 2013, February-April 2016, and October 2018, using qualitative methodologies. Haruku is the only village in Central Maluku that still maintains to practice *sasi adat* and has become famous for the practice. Many scholars have conducted research about *sasi* in Haruku related to ecology or environmental studies. Therefore, it was chosen as a field site for this research.

Data collection was done using techniques of participant observation and unstructured interviews; in-depth interviews and oral history. The interviewees were chosen based on their roles in society regarding *adat* practices, such as *kepala kewang*[1] and *mauweng*[2], by considering that they have comprehensive knowledge about the practice. In addition, data was

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[1] The term *kewang* comes from the local language; *ke* means "go to" and *ewang* means "forest" or "nature", thus *kewang* can be understood as custodians or rangers (*Kepala kewang,* personal communication, June 10, 2013). The term also refers to a traditional institution consisting of some people who are responsible for the inspection of the village area, forest boundaries, and the sea area (Novaczek et al., 2001). The institution is divided into two groups namely, *kewang darat* (land) and *kewang laut* (sea). The position as a member of *Kewang* is given by the lineage system. *Kepala kewang* refers to a leader of the institution, who is responsible for controlling and maintaining the institution and *sasi* practice, and who also leads the ritual of *sasi* (Pattikayhatu, 2007). People believe that *kepala kewang* is a person with special powers, who is capable of communicating with their ancestors. S/he is chosen or determined by the ancestors. Therefore, the leader position cannot be replaced randomly.

[2] *Mauweng* is a leader or "priest" of the indigenous (*adat*) religion, "who officiated in all matters having to do with the 'other world'" (Cooley, 1961, p. 312).

accumulated through conversations with random people in Haruku and observations on people's behavior in their local environment. Some important questions raised during the interviews, and also in conversations with residents, were: Why do they still maintain the practice of *sasi*, while other villages no longer maintaining it? What are the consequences if they stop doing *sasi*? Why are people prohibited from harvesting natural products during *sasi*? What are the consequences if they violate *sasi*? Why do people obey *sasi*? Other questions usually arise during the interview that lead to deeper conversations with the interviewees. Interviews were transcribed, selected, and categorized in accordance with the aims of this study. The data was analyzed using descriptive-interpretive method. The data, in the form of statements and descriptions of interviewees, as well as observational data, were described and interpreted to find meaning based on the interviewees' perspectives. Furthermore, the data based on previous studies on *sasi* are presented in the first section of this paper. In the next section, *sasi* is explained as an ecological practice in the perspective of the Haruku community based on the data from the field study.

In establishing the argument, I use Robert Redfied's (1952) understanding of "world view" as my point of departure. According to Redfield, world view is a perspective in perceiving the world, namely the perspective of a person looking at her/himself in relation to others. In the concept of worldview, humans know/understand who they are and how they differ from other "self/beings" in the world. The concept of a world view answers foundational questions, such as: "Where am I? Among what do I move? What are my relations to these things?" (Redfield, 1952, p. 30). The answers to those questions determine the way "I" should behave to build relationships with others. Behavior, according to Redfield (1952, p. 33), is the characteristic that distinguishes world view of each community. Accordingly, "world view or cosmology gives shape to cultural values, ethics, and the basic norms and rules of a society" (Berkes et al., 2000, p. 1256).

Moving beyond Redfield's concept of world view, Irving Hallowell (1960) reorients the popular conception of *personhood* based on the world view of the Ojibwa in North America. Personhood in the Ojibwa world view differs from the meaning of *person* understood in the Western perspective. For the Ojibwa, the notion is unlimited to humans, or the characteristics of "living beings". Therefore, a *person* for the Ojibwa people includes other-than-human-beings (Hallowell, 1960, pp. 20–21). For example, the sun, stones, and trees could be perceived as persons by the Ojibwa, so long as the other than

human beings in question perform certain actions or respond to human communications, and vice versa.

Furthermore, Bird-David (1999) in her study based on the worldview of Nayaka people in Southern India, indicates that the concept of a person is not limited to humans or living beings. Bird-David (1999) critiques the theory of animism developed by Tylor and Tylorians, arguing that the term "animism" should be understood as relational epistemology, which is regarded as "authoritative ways of knowing the world" (p. 69). There is no universal way of knowing the world for all people or society. Every indigenous or local community has their own, which can be similar to, even against each other. Through her field study on Nayaka people in India, Bird-David shows that the modern understanding of personhood and the environment is different from the Nayaka perspective. Bird-David shows that Nayaka people demonstrate "dividual" rather than individual relationships with their world. The term "dividual" refers to the inter-relatedness among all living beings, contrary to modern world view of "individual" concept (Bird-David, 1999, p. 72). There-fore, the way Nayaka perceive and treat other living beings is not through subject-object relations, but through subject-subject relations.

The other scholars who build similar concepts are Kenneth Morrison (2000) and Samsul Maarif (2015). Based on their studies on the world view of specific communities, they show that humans and non-human beings are living in interpersonal relationships. Human and non-human-beings are social actors or subjects. Morrison named it as the concept of "intersubjective relations", which underlies human attitudes and behaviors to other beings. The concepts of personhood, interrelated, and inter-subjective relations also exist in *sasi*.

Sasi and Environmental Conservation

There are considerable studies on *sasi* within the disciplines of religious studies, environmental studies, and anthropology, mostly as a method of environmental conservation. Scholars, such as Kaihena (1988), Mantjoro (1996), Elfemi (2015), see *sasi* as a form of natural resource management which is beneficial for environment. They also recognize *sasi* as an *adat* practice in terms of tradition, as ancestral heritage, which specifies norms and values for environmental conservation (Boli et al., 2014; Elfemi, 2015; Kaihena, 1988; Karepesina et al., 2013; Mantjoro, 1996; Novaczek et al.,

2001). Other scholars, such as Pannell (1997), Zerner (1994), Bubandt (2005), perceive *sasi* differently. They claim *sasi* is a reinvented and reconstructed indigenous practice that is utilized by particular groups for political and economic interests in which environmental discourse is merely an object of negotiation (Bubandt, 2005; Pannell, 1997; Zerner, 1994). In spite of that debate, both perspectives have contributed to bringing this practice to the scholarly discussion in terms of understanding how the practice and discourse of *adat* have been commodified.

Furthermore, the various perspectives and approaches used by scholars in conducting studies on *sasi* are largely based in Christian theology because Haruku is now a Christian community which identifies strongly with the Reformed church originally introduced by Dutch missionaries (Barus, 2014; Kaihena, 1988; Lesnussa, 2005; Siahaya, 1989), law (Karepesina et al., 2013), traditional management systems and environmental management (Boli et al., 2014; Elfemi, 2015; Mantjoro, 1996; Monk et al., 2000; Novaczek et al., 2001). Although using the dissimilar approaches, scholars in these different fields find the results for their studies, that *sasi* is a customary practice or tradition which is effective to the improvement of the quality and quantity of natural products. Because the practice of *sasi* limits human actions with natural resources, this practice is considered beneficial for environmental management and conservation (Kaihena, 1988; Kissya, 1993; Lesnussa, 2005; Novaczek et al., 2001). Nevertheless, conservation implicated by these scholars is still oriented towards human interests (anthropocentric). Anthropocentric scholarship largely focuses on the increased quality and quantity of natural products which, after implementing *sasi*, improve income for the people of Haruku.

There are some scholars who have conducted studies on *sasi* using local/indigenous religious perspectives (Barus, 2014; Kaihena, 1988; Siahaya, 1989). Kaihena, for instance, explores religious values in the practice of *sasi* by explaining in great detail the origins of the practice and how it is closely related to local beliefs and cosmology. Kaihena (1988) states, "one's bond to his natural property is more a religious bond than an economic one so they cannot act arbitrarily against nature, which belongs to them" (p. 14). However, Kaihena (1988, pp. 147–174) considers the practice of *sasi*, which is closely related to indigenous beliefs, to be tied to Christian theology and values. Kaihena instills Christian values on *sasi* and thus reduces its original indigenous value. For example, the role of *kewang*, which is responsible for

managing and supervision *sasi*, is interpreted as equal to the role of humans as stewardship in the Christian view.

Most of the studies on *sasi* are still dominated by the Western paradigm of World Religions and modern science (Bell, 2006; Cox, 2007). The application of the World Religions paradigm in interpreting local practices leads to the marginalization of indigenous people's knowledge. The paradigm, which emphasize on empirical studies and rationality, tends to perceive traditional knowledge and beliefs (*adat*) as irrational, backward, old-fashioned, and heretical. Thus, applying the World Religions paradigm in understanding *sasi* as an ecological practice might shift its meaning and, worse, devalues the indigenous practice once again.

My previous study has shown that the spiritual-ecological meaning of *sasi* has changed under Western interpretations, and its "new" meaning mainly emphasizes the financial (income) outcome of the practice which is more anthropocentric (Barus, 2014). This change is also supported by changes in values that have been adjusted, even replaced, by Christian values and teachings. Therefore, although environmental scholars promote *sasi* as an ecological practice, the crux of ecological concerns has changed. *Sasi,* which was originally interpreted in terms of cosmology and the local worldview, has shifted to Christian and anthropocentric meaning.

Sasi as *Adat* (Indigenous) Ecology

In general, Haruku people understand *sasi* as a customary practice which forbids people to take natural resources as well as products before harvesting time.[3] There are different kinds of *sasi* in Haruku, which are specific to different elements of the local environment, such as, *sasi* of the forest (*sasi hutan*) and *sasi* of the sea (*sasi laut*). *Sasi* of the sea is well known as *sasi ikan lompa.*

Sasi ikan lompa is a particularity of *sasi adat* in Haruku, which is led and organized by *kewang. Ikan Lompa* is a species of fish (*Thrissina Baelama*) that can be found in many places. Nevertheless, Haruku is the only village that practices *sasi ikan lompa* because there is a legend which explains that

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[3] I obtained this common understanding through ordinary conversations with random people in Haruku, as well as from the interviewees during my field study.

the Haruku people have a special relationship to *ikan lompa* (Kissya, 1993). The other particularities related to the legend are the huge number of the fish, and its lifecycle from the sea (brine) to river (freshwater) which is occurred only in Haruku (*Kewang laut*, personal communication, June 21, 2016).

The way Haruku people recognize their relationships to the fish shows that they have a specific knowledge and belief based on their cosmological view. The knowledge is handed down through generations in the form of a legend. In other words, *sasi* is a cosmological manifestation to maintain the balance of the cosmos. Therefore, rather than merely as environmental management practice, *sasi* should be understood as an indigenous (*adat*) ecology, that is:

> a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment. It is a way of knowing; it is dynamic, building on experience and adapting to changes. (Berkes, 2008, p. 7)

The following sections explore more about Haruku people's perception and knowledge of their world related to the practice of *sasi.*

The Cosmology

In the cosmology of Central Maluku, the world is divided in two tiers, the upper part is known as *lanit* and bottom known as *ume* (Cooley, 1961, pp. 326–327). *Upu lanite/ama* is a supreme being with supreme authority of the upper world, and *upu ina/ume* is a supreme being who holds the supreme authority of the bottom world. *Upu lanite* and *upu ina* are sources of everything and the creator of all beings. They are sources of mercy and grace for all beings. The existence of *upu* is also manifested in the nature (mountain, forest, and sea). *Upu lanite* gives fertility in the form of rain to *upu ina*, and *upu ina* gave birth to all beings and gives them life and growth.

Furthermore, in the cosmology, world or environment is a place where human and other-than-human-beings, originating from the *upu,* live together. For the Haruku people, the world is "limited to areas that can be recognized and inhabited" (Kaihena, 1988, p. 130), private and protected. There is a door as a way to enter their world. They believe that on the outside of their world there are both good and vicious powers. A good power will come if it is called by the people through certain rituals, whereas the vicious power is always on guard to attack them.

Maluku people also recognize the existence of entities that known as *tete nene moyang,* or the "spirits/souls" of their ancestors. *Tete nene moyang* are different from *upu,* but also have power which affects human life, by giving them either protection or punishment. The worldly actions of *tete nene moyang* depend heavily on human actions or behavior. As explained by the *mauweng*, "if we do good deeds, then the *tete nene moyang* will protect us, and if we do bad things, the ancestors will punish us" (*Mauweng*, personal communication, October 27, 2018). *Tete nene moyang* are close to humans, and serve as intermediaries between humans and *upu.* They inhabit particular places or elements in nature such as stones, wellspring, trees, mountains, and forests.

Human beings, in this cosmologic view, mark the unification of *upu lanite* and *upu ina*, so that virtually, humans have a particular relation to the creator (Soulisa, 2016, p. 105). Therefore, the human being is viewed as a pure manifestation and center of the cosmos. The centrality of the human is understood in the sense as the unification of all beings in the world. In other words, the human is a "manifestation of all being in the cosmos and vice versa" (Kaihena, 1988, p. 125). The centrality of humans is not understood in the sense that the existences of other than human beings are intended merely for human interest. On the contrary, humans see themselves as being in unification with other beings responsible for maintaining unity with all kinds of beings, and see other beings like themselves. Therefore, Haruku cosmology is very different from the anthropocentrism paradigm.

Interpersonal Relationship between Human and Non-Human Beings

Haruku people perceive that human beings are not the only subjects or social actors active in the world (Maarif, 2015). They recognize that their ancestors, animals, and stones, are included in their social lives. This perception can be found, for example, in the legend of *sasi ikan lompa.* Based on the legend, the fish is a symbol of the relationship between the ancestors (*tete nene moyang*) of Haruku people and a crocodile named Learisa Kayeli, who lived in a river in Haruku. The following is an excerpt from the legend of *sasi ikan lompa* told by the people in Haruku:

> According to Haruku legend, *tete nene moyang* and the crocodile once lived in harmony, helping each other whenever they were in need. Kayeli used to help the Haruku people to cross the river, and Kayeli never attacked the Haruku people. There was a time when Kayeli had to help other crocodiles on another island in Maluku, Seram Island,

which were attacked by a snake. The crocodile asked Kayeli's assistance to fight the snake. Ultimately, Kayeli defeated the snake, and the crocodile, helped by Kayeli gave the *lompa* fish to Kayeli as an expression of its gratitude. Kayeli brought the fish to Haruku and presented it to the ancestors of Haruku people as a gift. In gratitude for the offering of the *lompa* fish, the *tete nene moyang* made a commitment to maintain harmony through *sasi* as a symbol of the relationship between Haruku people and Kayeli.

Based on the narrative, it can be seen that there is inter-subjectivity in the relationship between humans and the crocodile. Haruku people perceive that Learisa Kayeli is a subject who has the ability to act or respond to human beings. It could be seen in the story when Kayeli helped the people to cross the river, and gave the *lompa* fish as a gift to humans. The crocodile for Haruku people was not just an animal, but a "figure" or "person" with whom the people interacted. Furthermore, the story shows that *sasi* is a way for Haruku people to maintain their relations with nonhuman beings.

Moreover, the story of the crocodile, Learisa Kayeli, is also a part of Haruku society's history. For them, the event is a factual one experienced by their ancestors in the past. Thus, they preserve the stories by telling it to the next generation. All people in Haruku, youth, adults, even children, know the story very well. Haruku people perceive *sasi* as a medium which maintains relation-ships with their ancestors, and a critical practice which ensures memory of identity and origin. As *kepala kewang* told me:

> *sasi ikan lompa* that we practice here is different from *sasi* in other places. It is special because it is our ancestors' covenant with the crocodile. If we break the rules of *sasi,* or if we do not practice it properly so something bad will happen to us. We must maintain and preserve the goods that have been given to us. We must live properly as our great grandfather taught us. Actually, this *sasi* is wisdom from our ancestors to maintain our relationship with nature. We have to practice *sasi* to honor our ancestors and maintain the subsistence of nature. The *ikan lompa* have been given to us. If we do not practice *sasi,* that means we have forgotten our ancestors. We have forgotten our origin. (*Kepala kewang*, personal communication, February 15, 2016)

The way the Haruku people perceive nonhuman beings as persons also can be noted from linguistic analysis of local pronouns. There are two kinds of

pronouns used in Haruku. First, *akang*, refers to things which do not have the capability of interaction or impact on the people. The second, *antua*, refers to things which have the capability to respond and interact with the people. In general, *antua* refers to human beings, but, in particular ways, it is also used as an attribute of the other than human beings, who are seen as capable of responding to humans. One example is Kayeli. The term *antua* refers to the crocodile, Kayeli Learissa and is used by Haruku people when telling about the legend of *sasi ikan lompa*. The term *antua* is not used as a pronoun for other crocodiles, only for the Learisa Kayeli. In this case, the Haruku community gives the same attributes to human beings as well as non-humans. This can be seen as an expression of their perception of other beings who they recognize as persons and to whom they have respect (Bird-David, 1999, p. 73).

The role of *tete nene moyang* in social relations can be seen in the violation of *sasi*. When someone violates the *sasi*, for example taking the fishes/fruits before harvesting time, then she/he will be punished by the ancestors in the form of illness or death. Haruku people understand the punishment to be a curse from *tete nene moyang*. This shows that *tete nene moyang* have agency and can respond to humans. In addition, people believe that the curse could also be from nature itself. This belief confirms the concept of agency in their spiritual landscape:

> which is meant to draw attention to how people imagine spirit forces and energies to emerge from or be connected to places, and to the attitudes that people may have to "hidden" or mysterious realms lying beyond, behind or immanent within the visible earth. (Allerton, 2009, p. 237)

Moreover, how the ancestors play a role in the practice of *sasi* is reinforced by the way Haruku people perceive the social role of the ancestors in everyday life, where the ancestors could intervene on human lives. The following is one of my field notes from February 2016:

> Ahead of the inauguration of a new *baileo*[4] building which would be held on March 9, 2016, some adults forbid me to cross the area around the building at night. Then, I asked them the reasons why I could not across the area. They told me that during the time leading up to the inauguration day, the ancestors (*tete nene moyang*) were guarding their new "home". As an outsider, my existence would

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[4] *Baileo* is a traditional building, usually used for rituals and other traditional ceremonies.

disturb those ancestors. If they feel disturbed, then they would punish me, so I would get sick. Because of that, I was not permitted to pass the *baileo* after 8 pm, until the inauguration had been done. I was curious about how they knew if the ancestors were there. Then, I asked them again, "How do you know, if the *tete nene moyang* are staying around the building?" They told me some names who, according to the people, have special abilities so that they are able to see and communicate with *tete nene moyang.*

This example describes how Haruku people recognize the existence of their ancestors in their ordinary lives. Although not all of the people are capable of seeing and communicating with their ancestors, they all believe that *tete nene moyang* can act and affect humans. They consider every action that is not in accordance with the values and beliefs they have inherited a precedent for bad things. Again, this clearly shows that Haruku people perceive that other than human beings are living together with them. They share the world with the other entities.

Interconnectedness between Human and Non-Human Beings
Sasi also contains the concept of interconnectedness. The concept is visible through the punishment of the violation of *sasi*. It can be illustrated as follows: when the people take natural products or resources during prohibition (*sasi*) time, they will get a curse from *tete nene moyang*. Violation, in this case, is a prohibited action because it can cause harm to the other beings (nature). For instance, if someone takes raw jackfruits, this action damages the tree. It will stop the reproduction of the tree (*Kepala kewang*, personal communication, February 21, 2016). Violating *sasi* means impairing relation-ships among all beings. By doing so, people who violate *sasi* must be punished. The punishment is a response from nature and *tete nene moyang* for the improper actions of the people. This suggests that humans and other than human beings are active subjects who engage through inter-connectedness and reciprocity.

It is known that Haruku people perceive the environment, human beings, and the other living and non-living beings, such as plants, animals, stones, etc., are alive. For the Haruku people, other living beings have powers and agencies that also affect human beings (reciprocal). Therefore, for them to build a relationship with their environment is important. This is the basic idea of *sasi*. Through this practice, the people are reminded how they should behave to

others (nature). Thus, *sasi* is an important practice which is able to guide human's actions, as stated by the *kewang:*

> We apply *sasi* in the forest in order to limit acts of the community, so that they would not take raw fruits in the forest, such as pineapples, jackfruits, coconuts, cloves, and so on. If *sasi* is not applied then the people will take it carelessly, and if that happens thus the trees will be damaged. If the people, usually the women, take raw jackfruits for cooking, so later on the tree will no more bear fruits. The same happens with clove trees if they harvest raw cloves carelessly, then the trees will dry up, and die. Our ancestors left them for our lives. We need to guard, rather than kill them by taking it carelessly. That is why *sasi* must be applied. (*Kepala kewang*, personal communication, February 21, 2016)

The statement indicates that *sasi* contains the moral value and responsibility for the cycle and sustainability of plants/trees. The moral responsibility toward the plants, based on the interview, involves the relationship between the people and their ancestors (*tete nene moyang*). A plant, in this case, is understood not merely as an object for fulfilling human needs, it is something which has been given and needs to be maintained by the people.

Conclusion

The findings of this study suggest that *sasi* is understood and maintained as an ecological principle (all beings have intrinsic value) which is based on the local cosmology. The idea of ecology in the practice of *sasi* recognizes the existence of non-human beings in a world where humans must maintain relationships with them. This ecological concept emphasize that all beings have relationships that are interconnected and inter-subjective.

Furthermore, *sasi* reflects a spiritual and moral (ecological) concern with humans maintaining a proper relationship with nature. The concept of environmental preservation, practiced through *sasi*, is understood by the Haruku community not only for the sustainability of human lives but also for the sustainability of other beings (nature) themselves. Thus, this study shows that the ecological concept or value underlying the practice of *sasi* is not anthropocentric.

For the people of Haruku, maintaining and preserving the practice of *sasi,* is an effort to maintain their historicity and relations with the ancestors. They perceive that relations with ancestors continue in the present life. Their relations with the ancestors also involve the role of nature because their ancestors live in nature, and relate to it. Maintaining this relationship is not merely for the benefit of humans but also for maintaining the balance of the cosmos, because in this practice all entities are perceived to be interconnected, reciprocal, and mutually responsible.

Finally, this study suggests the importance of understanding values and meaning of an indigenous ecological practice from the local's perspective or worldview. I argue that for Haruku people, based on their own perspective, the practice of *sasi* is not solely for the purpose of preserving the environment, as stated by many scholars, but it is also a practice rooted in the cosmology and worldview of the Haruku community which enables the continuity of relationships with other beings and their ancestors.

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CHAPTER 6

THE INDIGENOUS RELIGION OF THE TOBA BATAK PEOPLE: AN ECOLOGICAL PERSPECTIVE

Subandri Simbolon

Abstract

This paper aims to study the cultural practices and beliefs of the Toba Batak people as revealed in their relationships with their environment. The research questions are: first, what is the core concept of the Toba Batak in building and maintaining relationships with their environment and how do they apply it in practice? Second, what role if any do their indigenous religious practices play in preserving their environment? By using participant observation method, I argue that the Toba Batak's perception should be understood from an indigenous religion's paradigm. They have an ecological relationship with their environment. They relate to their environment based on *tondi*, the power of life, received from *Debata Mula Jadi Na Bolon* (the Batak name for God). This study contributes to religious and ecological studies because it focuses on environmental sustainability by analyzing the *harbune ni eme* ritual.[1]

Keywords: Indigenous religion, *tondi*, ecology, inter-subjective, Toba Batak

Introduction

Perceiving the Toba Batak religion by using world religion and a modern worldview fails to understand how the Toba Batak people related to their environment. World religion with hierarchical relationships and modern worldview with "Man and nature are two things, and man is master" (White, 1967, p. 1205) understand the Toba Batak religion as primitive. In many times and opportunities, the Toba Batak people have been labelled as "*sipele begu*" (ghost worshiper) because of their ritual activity regarding forest, water, lake, rice field and the other non-human beings around them. Widely, this perspective has misunderstood the Toba Batak cosmology as "animistic".

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[1] An earlier version of this paper was presented at the 9th International Graduate Students and Scholars' Conference in Indonesia (IGSSCI) and was published in its proceedings (Simbolon, 2017).

For the Toba Batak people, the cosmos is inhabited by not only human but non-human beings such as rice, amulet, mountain, rivers, lake, land, trees, animals, etc. Their perspective is based on how each being is related to them in person. When they conduct ritual to the forest, they assume that forest has given many good things like food and wood. For them, human and non-human beings are mutually interconnected. They try to keep the forest safe because the forest keeps them safe. Even when they build their traditional houses, they perform a certain ritual to get permission from the forest. In addition, the Toba Batak people's concept of personhood is the basic element of their indigenous religion's concept and practice. This concept of personhood is similar to other indigenous communities such as Ammatoa, "their personhoods are recognized through several ways such as visions, dreams, myths, stories, rituals and traditions in which they show their engagement in relationship" (Maarif, 2019, p. 83). Human is not the center of the environment. All persons, human and non-human beings, have their own rules to give and take from each other in maintaining their living space.

Indigenous religious understandings of personhood have been documented by many scholars (Bird-David, 1999; Hallowell, 1960/1975; Morrison, 2000; Viveiros de Castro, 1998; Wei-Ming, 2007). In so doing they have tried to open space for the reappearance of indigenous religion's perspective. Tu Wei-Ming (2007) asserted:

> the typical shape of the original traditions is an in-depth under-standing and experience of rootedness. Each genuine religious tradition is embedded in a concrete place that symbolizes a way of understanding, thinking of styles, ways of life and attitudes, as well as the view of the world. (p. 25)

There is a relationship between people and their own place rooted in their worldview. This is very different from what modern paradigms offered for people as a worldview.

For the Toba Batak people, personhood is understood as part of their basic ideas which are implicated in their daily activities. They do not place non-human beings at a lower level than humans, but are seen as subjects taking part in maintaining the cosmos with humans. The awareness that humans and non-human beings are mutually interdependent is formed from their relationship with the environment which has also taught them about how to build that relationship. In fact, the Toba Batak People's closeness to nature was on the stage of personification of other beings and includes non-human beings in their kinship. They call water *Ompung* (Grandmother) *Boru Saniang*

Naga, forest *Ompung Sin (dar) -Dolok*, and air *Ompung Boru Na Mora*. This is similar to the North American, Crow-Apsaaloke's view, "The sky is my Father and these mountains are my mother" (Grim, 2001, p. 48). This what is called interpersonal/inter-subjectivity.

Based on this concept, this article discusses the rice field agricultural system of Toba Batak Society as part of their indigenous wisdom. According to my interviewees "being religious is being ecological" (A cultural activist [male] from Balige, personal communication, February 13, 2014). It is meant that being religious is building and maintaining relationships with the non-human being through personhood and inter-subjectivity with responsibility, ethics and reciprocity. This will be begun by examining the concept and practice of the Toba Batak people on personhood and inter-subjectivity.

This paper aims to study the concept of the Toba Batak people that shapes their relationship with their environment. The questions: first, what is the concept of the Toba Batak in building relationship with their environment and how do they apply that concept? Second, what are their indigenous religious practices whose objectives are to preserve their environment? The field site of this study is at the most sacred site for the Toba Batak people, Sianjur Mula-mula village, Samosir District, North Sumatra. The historicity and the importance of this village for all Batak people in general and to the Toba Batak society in particular have become the main reasons for selecting this field. I collected my data through field work (Davies & Spencer, 2010), participant observations and in-depth interviews (unstructured interviews). Data collected from interviews were recorded, transcribed, classified, and analysed. I used qualitative data analysis for coding; identifying themes, patterns and relationships; and summarizing the data. By living with the Toba Batak people from February to March 2014, I participated in their daily activities which included specifically their rituals, farming, and taking care of the animals. I observed the way they performed their practices and asked questions about the meanings of those practices to ritual specialists (shamans), farmers, shepherds as well as other members of the community. In addition to field work, I also collected data from main sources of literature (Nainggolan, 2012; Sinaga, 2014; Tobing, 1956; Warneck, 1909) that have documented indigenous religion of the Toba Batak people. In my observation even though most of the Toba Batak people have converted to Christianity, both Protestant and Catholic, their paradigm is still rooted in their indigenous religion. In practice, they understand that the nature around them is part of their daily lives because it has provided a source of life such as rice, wood, water, air,

etc. However, many practices such as the ritual to the forest, wearing amulets, etc. have been forgotten, especially among the young generation. I interviewed both elders and the youth, males and females, through a snow-balling method (Browne, 2005), on their life stories in relation to their perceptions and practices to explore information about how the Toba Batak people understand and practice religion and the environment around them.

Inter-subjective Relationship: Ecological Religion of the Toba Batak People

The Toba Batak people perceive that human beings live together with non-human beings. This understanding is very different from the modern paradigm perceiving this world in a "hierarchical relationship dissimilarity among categories of being: divinity, humanity and nature" (Maarif, 2019, p. 109). According to this paradigm, human beings, then, are in a higher level than non-human beings included in nature. For the Toba Batak people, the level of each person is not determined naturally, but by the contribution given by each party to keep the continuity of their relationship.

To understand the Toba Batak worldview, we have to start from their mythology of creation. There are many versions of their mythology of creation. The most widely accepted version is narrated by Sinaga:

> *Debata Mula jadi Nabolon* (then called as Debata MJN) began to create three "humans" from Chicken eggs: *Bata Guru*, *Soripada* and *Mangalabulan*. The three "human" then married three women: *Boru Siportibulan*, *Malinbindabini*, and *Siboru Aggasana*. *Batara Guru* then gave birth to a daughter named *Sideak parujar*.
>
> The creation of the world was begun when *Si Boru Deang Parujar* refused her marriage to Si Ruma Uhir because the appearance of that man was very ugly (shaped like a lizard). Deliberately, *Si Boru Deang Parujar* dropped the bobbin of her woven thread and took it down. Because there was no footing, she then asked for a sword of the gods, a branch of the tree of life called *Hariara Sundung Di langit,* and a soil of *sampohul* (around a handful). The land was forged into a very large area and made *Naga Padoha* feel very angry which made him twisted, and the land was finally destroyed.

Then, *Si Boru Deang* again asked for a handful of soil and resumed forging and preparing her sword. When the soil was percolated, the sword was plugged in until what appeared was the handle of the sword (*suhul*). From that moment, *Naga Padoha* was imprisoned.

The Princess then felt lonely. But *Debata MJN* still paid attention and ordered that *Si Tuan RumaUhir* be chopped and put into a magic bamboo tube. The tube was then dropped down. Suddenly the tube broke and a handsome man appeared. The encounter with the Princess occurred when the man followed a giant turtle he had choked on. They finally met. When the turtles were cut, *Si Raja Ihat Manisi* found all kinds of seeds. From that seed grew all kinds of trees and plants, animals. Forests, fields, were also created. Both of them also lived in a magical garden, called *Sianjur Mulamula Sianjur Mulatompa* or *Porlak Sisoding* (chosen sacred garden). (Warneck, 1909, pp. 27–32)

The Toba Batak people understand the fact that this world consists of three parts: the upper world, the middle world and the underworld. Each world has inhabitants with different functions in the cosmological order. All inhabitants have their own relations which influence each other both positively and negatively. In daily life, this cosmology is manifested in real life in the Toba Batak traditional house. Sibeth (1991) once said, "The basic form of the traditional communal houses of the Toba and Karo Batak represents the cosmological ideas of their inhabitants" (p. 115).

Regarding the inhabitants of each world, scholars have different explanations (Sinaga, 2014; Tobing, 1956; Warneck, 1909). According to Tobing (1956, pp. 47–53), the upper world is inhabited by *Mula Jadi Nabolon* called *Tuan Bubi* (Earth) *Nabolon* and four other deities named by *Debata MJN*: *Tuan Batara Guru Doli*, *Tuan Sorimangaraja*, *Tuan di Papantinggi*, and *Debata Asiasi*. As said before, the upper part of the Toba Batak traditional house is one of the manifestations of the upper world. The upper part is the roof which in the Toba Batak language is called *tarup.* According to Simamora (1997, pp. 8–9), *tarup* is part of the gods and spirits of the ancestors. It is not surprising that in *tarup* are stored statues of ancestors, or sacred objects left by the ancestors. In my field research, I join a ritual offered for the spirit of the ancestors in a traditional house of Toha Batak people. For the ritual, they prepared many foods and drinks such us *itak* (tranditional cake)*, napuran* (betel)*, tuak* (palm wine)*, indahan na las* (rice)*, aek na tio* (water)*.* After all

foods and drinks were prepared, the shaman lead the prayer and put part of those food and drinks on to the board under the roof of the house. In his prayer, the shaman said "we give you this foods and drink, oh our ancestor, for taking care of us in our daily life" (A shaman [male] in Sianjur Mula-Mula village, personal communication, February 22, 2014).

Other manifestations of cosmology are also presented in the pillars of offerings (*borotan*) which are embedded when they perform major rituals such as sacrifice rites. I found this ritual performed by the *Parmalim* Community (an indigenous religion community in Balige). They put *Borotan* (an immiated tree used as a pole to which buffalo are tied) in the middle of the yard where the ritual performed. The pole which is also called as *baringin tumbur jati* (symbol of the Toba Batak sacred tree) presents all three worlds at once. At the top of the tree is placed *Tambatua* (Toba Batak magical powder) mixed with a concoction of horn bill beaks, as a magical porridge (Sinaga, 2014, p. 156). Sinaga emphasized the presence of the upper world in the upper part of the pillar:

> it is clear that what is depicted here is the heavenly event, *partungkoan* (place of discussion) *Debata Natolu* (Three Gods) under the *Tumbur Jati* (Tree of Life) where the mystical perch of *Hulambu Jati* is laying eggs to bring down human and the Middle World. (Sinaga, 2014, p. 157)

As such, the cosmos manifestation of the upper world remains concrete in the life of the Toba Batak people.

The middle world is inhabited by humans as well as non-human beings. Humans were born from the marriage of *Siboru Deak Parujar* to *Raja Ruma Uhir* who both came from the upper world. The Toba Batak people believe that humans are descended from the upper world gods (Nainggolan, 2012, p. 24). Besides humans, there are also other-residents who live together with humans. Sinaga (2014) explained, "after conquering the *Naga Padoha*, in the Middle World, peace and stability ensued, and Allah the Most High sent all kinds of seeds of plants, trees, creatures, to inhabit Middle World" (p. 164). Furthermore, Sinaga explained that the middle world was also inhabited by other-forms called *Debata Idup*, *Boraspati ni tano* and *Boru Saniang Naga*, *Namboru na mora*, *Ompung Sindar Dolok*, and other-persons. Manifestations of the world are found in the middle of the Toba Batak traditional house. "This is what is actually called a home" (Simamora, 1997, p. 9). The middle world in *borotan* is manifested on a pillar which is surrounded by lines from 8 cardinal directions. Piet Voorhoeve (1954) asserted that "when the pillar of

the offering is traced to the image of the wind eye painted with flour, surely the Toba Batak understands it as a middle world with the eight directions of the compass" (p. 241).

Regarding the inhabitants of the underworld, all scholars agreed to mention one important person, *Naga Padoha*. He was defeated by *Siboru Deak Parujar* for destroying the land and bringing bad things to the middle world. *Naga Padoha* is also understood to be the cause of earthquakes. When an earthquake occurs, people will shout "*Suhul! Suhul!*" This shout turned out to be a reply to *Boru Deak Parujar* in order to strengthen the sword that locked *Naga Padoha* in underworld. *Suhul* is the hilt of the sword. The underworld is also manifested in the roots of *borotan*. Tree roots embedded in the ground signify the underworld inhabited by *Naga Padoha*.

For the Toba Batak people all beings (human and non-human beings) in this world are understood and accepted as beings who have the potential to build relationships with them. However, not all beings are understood to be subjects. Viveiros de Castro (1998, p. 470) in his description of personhood explains that for Amerindians, humans see themselves as humans and animals as animals. Other-beings see themselves as humans and see humans as animals. Likewise, for the Toba Batak people, they perceive that non-human beings have their own perspective and intention to engage. After establishing a relationship, each human perceives the non-human being as a subject. Each subject in the relationship has the character of intentionality and agency that is recognized through the relationship. Then, not all the beings around them are accepted as subjects. A being is perceived as a subject if it has intentionality and agency.

As is the case with other indigenous people's understanding such as the Ojibwa in North America and the Ammatoa in Sulawesi, the Toba Batak people also develop "subjects of relations". That is, all beings are subject, at least potentially (Maarif, 2019, p. 114). The self (human person) perceives others who relate as subject, or person using another term (Bird-David, 1999; Morrison, 2000). In that relation, each subject actualizes his subjectivity with an awareness of "any kind of relationship he/she engages because it would determine the function and position of all selves engaged" (Maarif, 2019, p. 114). Thus, the cosmos in the Toba Batak people's paradigm can be understood as an area inhabited by each subject. Maarif (2019) also emphasized, "the cosmos in this paradigm is occupied by different subjects

engaging in intersubjective relations, and it is therefore characterized as inter-subjective cosmology: the cosmos is occupied by different subjects" (p. 144).

For the Toba Batak people, those who belong to others are not only humans, but also non-human beings, both visible and invisible. In the field work, I joined one buffalo shepherd, Amang Limbong. He has around 12 buffaloes that he leads to a field close to a rice field. Suddenly, one of his buffalo ate the grass beside of the rice field. From a distance, he called the buffalo by buffalo's name "*Lepe!*". I asked why he named his buffalo. "I named every buffalo based on their uniqueness. I name '*Lepe*' because his horn grows down", he explained (An elderly shepherd [male] in Sianjur Mula-Mula village, personal communication, February 20, 2014). They build relation-ships with their ancestors through rituals, daily activities and even through self-identity (clans). They also build relationships with objects around them such as rivers, lakes, mountains, forests, trees, rings, *ulos* (the sacred shawl of the Toba Batak people), houses, and other-objects. Their understanding of non-human being as subject arises in the process of establishing relationship with others. That is, not all humans and non-human beings become subjects for them. The others themselves are human/non-human beings who engage with them. Just as the clans, who build relationships with *Simanullang*, are considered to be descendants of *Simanullang*.[2] Another example is a scholar with his/her books. Not all books become subjects, but only the books which engage with the scholar. However, for the Toba Batak people, there is a certain person to whom they can all relate to, *Debata Mula Jadi Na Bolon.*

Tondi, The Essence of Inter-subjective Relation

As already mentioned, in the indigenous paradigm, the form of relationships that are built are not merely "subject-object relations" but "subject relations". The self (human person) perceives others who relates as subject, or person using another term (Bird-David, 1999; Morrison, 2000). The self relates to others themselves because others are understood as subjects who actively carry out their roles. Talking about relationships, the actions of each subject never stands alone. Every action will have an influence, or have an impact on the others. If someone does something positive, he will also get a positive impact. And vice versa: if someone acts negatively or does not perform his

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[2] *Simanullang* is the ancestor of *Simanullang*'s clans. Every member of this clan perceives *Simanullang* as subject and they give him much respect.

positive role as a subject, this will also cause negative results. Relations can be broken. As Maarif (2018) states: "The self therefore must constantly contemplate the ways in which her/his own behaviors and other beings' behaviors would bring about consequences to her/himself, and to other selves" (p. 83).

To understand inter-subjective relations in Batak Toba culture, three relationship principles may be applied: ethics, responsibility and reciprocity. Being ethical, the self has to understand that all of its actions will definitely have an impact on others. Whatever is done by the self, both positive and negative, will affect others. For example, when someone dumps litter into Lake Toba (one of the biggest volcanic lake in the world), people will reprimand by saying "don't litter, the Lake will be angry". Disposing of waste is understood as a negative action that can cause disaster for all especially when the lake is angry. Which means, the lake is perceived as a subject affected by these negative actions.

The self must also be responsible. Being responsible means understanding that every action will affect himself and others. Responsibility is needed to ensure the realization of the well-being of each subject involved in the relationship. Subjects are required to always behave in accordance with the responsibilities that have been formed when each subject perceives the other. In the Toba Batak people, this responsibility is shown by a shaman when performing rituals. The ritual carried out by the shaman will invite other-beings to carry out their responsibilities by attending the ritual.

The other character this relation is reciprocity, which implies "what I give is what I take, or what I take is what I give" (Maarif, 2019, p. 115). When one of the subjects does not have reciprocity, all related subjects will be fall down. This relation clearly emerges in rituals. A ritual should be attended by many persons including humans and non-human beings. A shaman will call all subjects related to the ritual to present. These relationships are based on reciprocity. Cox (2000) also confirms this opinion, "Reciprocity between the community and the spirits marks the central core of indigenous religious activity... In return, the spirit provides protection and material benefit for the community" (p. 232).

In the Toba Batak people paradigm, each person is aware of what must be done to ensure the relationship they build goes well. I saw the practice of this awareness when I joined a young man (one of my interviewees), to climb

Pusuk Buhit. There are some stopping spots before the top of the hill. In every spot, we do a *tonggo* ritual, in front of a stone, to get permission from the person in every spot. He called the stone "*Ompu panjaga harbangan*" (Grandfather of the gate guard). "All of those spots are inhabited by a certain person. We have to beg permission from them before we get top of this hill", he explained (A young cultural activist [male] in Sianjur Mula-Mula village, personal communication, March 7, 2014). This activity presents a question in my mind. What is the essence of this relation that we build with every person we met? He told me of one entity called *tondi. Tondi* is a fundamental entity which exists in every subject. Some non-human beings, both animate and inanimate objects (in modern thought) are understood as persons because they have *"tondi"*. However, not all of them have *tondi* for every human as subject. The non-human beings for the Toba Batak people is the "creatures" who together with humans build intentional relationships. This dichotomy is not understood in the realm of the supernatural-natural. It emerged from their daily experiences. When they meet snakes, frogs and other animals, they will not kill or even let them out because they perceived they have *tondi*, so they live on the mountain.

According to the Toba Batak people, *tondi* is not spirit, nor a soul as in the world religion's perspective on human (body and soul). My interviewee said that *tondi* is not spirit, but a life force in all beings in the middle world. *Tondi* can be interpreted as the power of life, essence, or make things as "the other-than-human persons" and human (Simbolon, 2017, p. 168). Nainggolan (2012, p. 35) asserted that *tondi* also is the essence which gives life to inanimate objects such as rice, sword, name and amulet. In the human, body and *tondi* are not a whole unit. My interviewee explained that in certain circumstances, such as when sick, startled, or having had a dream, *tondi* can go out of the body (A shaman [male] in Sianjur Mula-Mula village, personal communication, March 13, 2014). But we can call it back by performing ritual, so called "*mangupa tondi*" (seducing *tondi* to come back). He gave an example, like when someone has a traffic accident, the Toba Batak people considered the *tondi* just goes out from the body. Nainggolan (2017) confirmed that "to be healthy again, it is necessary to make a *tondi* return to the body (pick up the *tondi*)" (p. 36).

The essence of *tondi* is the basic foundation for the relationship between man-God-nature. The Toba Batak people believe that human and other-persons (rock, tree, emulate, house, rice, etc.) received *tondi* from *Debata MJN. Tondi,* then, is the reason why humans have to build relationships with the

non-human beings in the middle world. The people are not allowed to cut down a tree without permission from the *tondi* of the tree and the forest. To get permission, humans have to perform a certain ritual. One of my interviewees (A young cultural activist [male] in Sianjur Mula-Mula village, personal communication, February 18, 2014) told me how they built their house. Before they started, they collected builders and ask a shaman to lead them in ritual. The ritual was performed in the forest where the trees were to be cut as their house material. I ask why they did it. The interviewee said, "We need the permission of the forest and trees so that our house has a *tondi*" (A young cultural activist [male] in Sianjur Mula-Mula village, personal communication, February 18, 2014). Once, the forest did not give permission, and they decided to get the tree from the other forest. Because the tree has *tondi,* we can understand why the *baringin* (banyan tree) is perceived by the Toba Batak people as an important tree, and they respect the *baringin* by giving offerings not because this person has *begu* (demons or spirits) or anything scary. This perspective is different from a world religion paradigm, which perceives an offering to banyan tree as infidel (Christian) or *syirik* (Islam). Maarif (2019), in a broader context, asserted:

> For (religious) practices of a forest visit, for example, people are claimed to come to worship the spirit of the forest, in Tylor's animism theory. It is claimed that people believe that behind the forest is the spirit whom the people visit to worship. (p. 113)

For the Toba Batak people the *tondi* of *baringin* functions as a subject in the relationship between human and the *baringin* tree. Humans make a certain ritual as the main way to communicate with *baringin* to maintain their relationship and to re-contextualize the relationship.

The strength of *tondi* for every person is not same for the Toba Batak people. In the context of the relationship, the strength of *tondi* is dependant on every person's (human and non-human) intention to build that relationship. The more intention they give, the stronger *tondi* they have. My interviewee (A fisherman [male] in Pangururan, personal communication, February 24, 2014) told me about his perception on water. For him, water has *tondi,* so called *Boru Saniang Naga.* This person gives him life from fishing on Toba Lake. Based on this concept, for the fisherman, this person has a stronger power than the others person because of her intention—contribution and function— to give the fisherman his life. This relationship will be clearer in a ritual performed by the shaman and attended by people who have need in the ritual. In the next section, we will see one of the Toba Batak people's rituals called "*Harbue ni Eme*" (a ritual to seeds of rice).

Harbue Ni Eme: Re-contextualization of Inter-Subjective Relations

Rappaport (1968, p. 1) based on his research in the Tsembaga-New Guinea community explained that the ritual does not only function to regulate the social life of the community. Rituals provide a broader impact both on the affirmation of relations between humans, animals, plants and other forms, and also have an impact on environmental preservation. Rappaport (1968) explained, "Ritual will be regarded here as a mechanism, or set of mechanisms, that regulates some of the relationships of the Tsembaga with components of their environment" (p. 2). The Tsembaga's perception on ritual is similar with the Toba Batak people. Between the Toba Batak people and nature there is a very intimate relationship. They live interdependent with nature. One of my interviewees (An elderly shepherd [male] in Sianjur Mula-Mula village, personal communication, March 4, 2014) emphasized that land is a symbol of the very presence of *Debata MJN* in human life. This relationship has been very well established.

In the context of ecological sustainability, the Toba Batak people conduct activities related to nature based on their indigenous religion concept on their environment. For them, being religious is to be ecological. They practiced this perception in every activity they did such as agriculture, fisheries, construction of houses and other activities. For them, the relationship with *Debata MJN* has similar characteristics with their relationship with nature (Simbolon, 2017, p. 170). Many times, they call *Debata MJN* as *Ompung MJN. Ompung* or *Ompu* means Grandfather. This term has a lot of meaning and is very important to the Toba Batak people. The relation with *Debata MJN* and other-person can be seen clearly especially when they perform rituals such as *Harbue ni eme,* as shall be explained.

Ritual became a form of religious ecological practice of the Toba Batak people. One of the rituals found in the field was *Tonggo ni harbue* (prayer on rice). This prayer emerged from their closed relationship with rice and rice fields. Rice fields are the main source of life for the Toba Batak people. Loeb (1933, pp. 23–24) and Sherman and Sherman (1990, pp. 34–35) concluded that the Toba Batak people has long lived on the farm fields. One of my interviewees explained about soil and *tondi* of soil, called *Boras pati ni tano.* It is the person who keeps the soil fertile for rice in rice field. The other-person in this ritual is rice, they call *Inang* (mother). Niessen (1985) explained "*inang* referred to the *tondi* of rice" (p. 167). The way they refer to rice as *inang* is a clear example of that relationship.

Tonggo is prayer for the Toba Batak people. "*Tonggo* means 'call' so *martonggo* means 'to call'" (Nainggolan, 2012, p. 147). In a ritual of *Martonggo* (the visit to the sacred hill), as observed during the field work, the ritual's leader spoke these words "*Hutonggo, hupio, hupangalu-aluhon*" (I called, I beg, I proclaim you) as an opening formulation in a praying. *Tonggo ni harbue* means prayer for rice (Nainggolan, 2021, 139). This *tonggo* is intended to invoke the *tondi* of rice growing firm and strong:

> *Hugolom ma Dainang di pogu ni tanganhu, huambur di punsu ni jari-jaringhu. Huambur di jaean, jumpa ahu di juluan, huambur di juluan, jumpa ahu di jaean. Dainang na uja marboru, na pakpak marhela on. Dainang siapul na tangis, sipamokmok na marniang on. Dainang Si Boru Agea, sipatuk nidok ni roha on. ... Jadi hutatap, hutonggo ma dainang on: Si Deang Marlundu Pepe goar ni Dainang on, di toding partandangan i. Sahat ma Dainang tu toding partandangan i, satiga, dua tiga, tolu tiga, opat tiga, lima tiga, onom tiga, pitu tiga* (I hold you, oh mother, in my hand. I sow through the tips of my finger. I sow downstream, I found upstream. I sow in the upstream, I found downstream. Mother who the smooth-tongued her "daughter". Mother is clever to take heart of her son-in-law. Mother, entertainers those who weep, make fat thin people. Mother, *Si Boru Agea,* knows the desires of my heart. ... I watched and I watched mother, your name now is: *Si Deang Marlundu Pege* (Queen of young ginger buds) at the meeting place. Mother arrived at the meeting place, a week, two weeks, three weeks, four weeks, five weeks, six weeks, seven weeks) (Nainggolan, 2012, p. 140)[3]

The close relationship between *Partonggo* (who make a call) and rice is shown in *tonggo*. Rice is perceived as Mother (*Dainang*). When rice was still small, humans were responsible for maintaining the rice. And when the harvest season arrives, that rice will preserve humans and provide life for humans. Rice is able to give life to humans because it has *tondi*. Without that *tondi*, rice is useless to humans. That is why humans have to give respect to the rice's *tondi*.

The way *partonggo* pleases the *tondi* in rice is also in *tonggo*:

> I held *Dainang* with my hand, I sowed through the tips of my fingers... *Dainang* is the one who is good at persuading her daughter,

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[3] This *Tonggo* has been re-transcribed by Togar Nainggolan (2012) from the recordings of Datu Ama ni Rongkoman Samosir. This casette tape was recorded on January 4, 1966, in the Catholic Church of Sibolopian, Negeri Ambarita, Simanindo sub-district, Samosir district.

> *Dainang* is the one who is good at persuading her daughter-in-law, *Dainang* is the one who comforts the crying ones. (Nainggolan, 2012, p. 140).[4]

These flattering words directly aim to please the heart of the rice. In fact, *partonggo* seemed to tell the way of the living of rice explicitly: mentioning the name of the rice according to the process of her growth (*Ratu Marlundu Pege, Ratu Gumojok-gojok, Ratu Penadah Langit, Umpinta Omas Marsigumorsing, Wanita Pangantaran, Wanita parsonturan dan Wanita Partumpuan*), explaining the duration of each process (one month, two months, three months, etc.), and how the rice would be processed. The stages of rice growth are expressed by mentioning time because they are adjusted to the results of *partonggo's* understanding of *parhalaan* (traditional calendar of Toba Batak People). With reference to the calendar, *partonggo* wants to emphasize that the ritual is done with the permission of the universe.

In this *tonggo*, it is clear how the Toba Batak people perceive rice as the non-human being. They recognize rice as a person because it has *tondi*. Both human and rice are equally involved: giving-receiving, keeping-welfare. Every person in this relationship comes together and shows each inten-tionality, agency and subjectivity characters (Viveiros de Castro, 1998). In addition, in the ritual of *Harbue ni eme*, some upper world persons such as *Debata na Tolu* are presented as a form of cosmic presence. This clearly shows that this ritual is an attempt to maintain relations between the middle world and the upper world.

The existence of *tondi* in rice makes it able to carry out her its responsibilities: grow well, provide abundant results and create life for humans. The way the Toba Batak people relate is also truly filled with religious values because it presents an upper world, nature, and human persons. The presence of *tondi* in rice makes the rice strong and useful. As such, this way of relating directly asserts that the way humans relate to nature is always imbued with their religion. Religious life is a matter of responsibility between humans and other-beings (subject, person) (Morrison, 2000, p. 24). How can this religiosity be realized?

The Toba Batak people show their responsibility by ensuring the fulfilment of the rights of rice (Simbolon, 2017, p. 172). They hold rituals that are specific

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[4] This quote is part of *tonggo ni harbue ni eme*, recorded on January 4, 1966, found in Nainggolan (2012).

to rice before planting rice, when rice grows and when harvesting rice. They try to build responsibility for this relationship by giving great respect to rice. The meaning of respect here does not mean worshipping rice. An interviewee explained: "We do not worship the spirit of rice when we perform this ritual. We only express our gratitude because Mother Rice has provided welfare for us" (An elderly farmer [female] in Sianjur Mula-Mula village, personal communication, February 26, 2014). The Toba Batak people did so because they realized that the rice had contributed to their lives. It is rice which gives welfare directly to them as a mother. What's more, rice is not only seen as food, but also as a means of blessing humans. The term, *Boras si pir ni Tondi* (*tondi* confirming rice) is conveyed when parents want to bless their children by sprinkling rice on the heads of their children. This shows that the role of rice would never be separated from the lives of the Toba Batak people.

In the relationship with the rice, the Toba Batak people also imply a reciprocal relationship. They have an obligation to give what must be given to the rice. And only in that way, they will get abundant results in their harvest. They respect rice, of course, because rice has showed her intentionality as a subject to provide for human need. Rice also has *tondi* which has strengthened human *tondi*. Both of these persons (human and non-human) take benefit from this relationship. It is not only humans who benefit, but also rice. The rice is cared for and respected as a *tondi* owner. This reciprocal relationship will continue because only then can human and rice welfare be realized.

From the *Harbue ni Eme* ritual, we can also see how they apply ethical values to the treatment of the rice. This treatment symbolizes how the Toba Batak people maintained values in relation to rice. They provide suitable land, drain clean water into the rice fields (irrigation system), clean all the grass that grows in the fields, harvest, grind and cook rice (Simbolon, 2017, p. 173). These values are delivered by parents to their children by prohibiting them from saying bad words in a rice field. For example: when they are harvesting, they cut rice very carefully and collect it on the edge of rice fields. When there is a small collection, they should not mention that it is a small collection. An interviewee explained that while the word to say "a little" is *saotik*, the right word to use is *sagodang* (An elderly farmer [female] in Sianjur Mula-Mula village, personal communication, March 20, 2014). *Sagodang* is not used to say "a lot" even though it has the word *godang* ("a lot") in its composition. The aim is to say "a little" by saying "a lot": *sa-otik + godang = sagodang*. Another example is that they are prohibited to wear

shoes or sandals when stepping on the rice even if their feet can be injured. When asked why? The parents answered, "later the rice will be angry".

These actions and farming practices are implemented in various areas in the Batak Land. They understand rice as a subject that has a relational intensity towards other-beings. The relationship is not only owned by the *datu,* or traditional elders, but by all the people. This is evident from their daily lives. Communities become ecological religious practitioners by making these practices as a part of their daily life. Moreover, this activity is carried out as an implication of their religiosity. Thus, the ecological religious wisdom is shared by everyone in each community. It is the recognition of people that influences their daily behavior (Maarif, 2013, p. 13). That is, their behavior towards plants and animals (however, not all plants and animals) is culturally structured. This behavior is comparable to the way they behave towards people who understand what is said to them and who have the capacity to want and desire (compare with Hallowell, 1960/1975, p. 160).

The ritual of *harbue ni eme* is not only a matter of religious activities that has to be carried out but also an activity of re-contextualization of relations between humans and rice. All parties involved have a way of relating as previously explained. With the procurement of rituals, all the concepts of the relationship were brought back. The ritual is basically to contextualize the solidarity between human and non-human forms (Morrison, 2000, p. 85). All the people at the ritual were reminded of how they should relate to rice. Re-contextualization is thus a form of confirmation that humans and rice have a very close relationship. *Tondi* is the essence of the relationship because it re-presence the existence of each being that is able to present itself as a subject in this religious connection.

Conclusion

Harbue ni Eme is a *tonggo* in ritual practices performed by the Toba Batak people. As a ritual, *tonggo* shows the basic character of the Toba Batak ideas, revelations and practices of religiosity. This understanding manifests itself not only in rituals but also in their daily activities. From this *Tonggo Harbue ni Eme*, the Toba Batak religion can be understood as a religion based on cosmology where the world is inhabited by various persons: human and non-human beings. All of these persons are related because each of them has the essence of relationship, *tondi.* Thus, understanding the concept of *tondi* is the

very basic knowledge needed to understand the whole concept of the Toba Batak people's religiosity. This knowledge, then, helps us to counter the stereotype of modern and world religions. The Toba Batak people did not worship the land, but re-contextualize their relationship with the nature through ritual or *tonggo*.

The Toba Batak people practice their indigenous religion in their activities related to nature and their relationship to their environment not just in concept, but implemented in their daily practices. I would say that the indigenous religion of the Toba Batak people is ecological. For the Toba Batak society, religiosity is not longer limited to religious teachings, but comes from everyday experiences with non-human beings around them. This study confirmed studies by Nainggolan (2012), Sibeth (1991), and Sinaga (2014) that although most of the Toba Batak people have converted to Christianity, they still strongly appreciate and implement their indigenous religion.

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CHAPTER 7

RAIN HARVESTING AS COUNTER-HEGEMONIC PROJECT: THE RISE OF ECOLOGICAL RELIGIOSITY IN THE BANYU BENING COMMUNITY, INDONESIA

Maharani Hapsari

Abstract

This chapter seeks to explain the rise of the counter-hegemonic ecological project of rain harvesting activism in the Banyu Bening Community, an Islamic-based grassroots movement in Yogyakarta, Indonesia. Using Gramscian political ecology as a lens, it discusses how the religiously-informed activists in this movement produce a collective sense of ecological crisis and react to that in a deliberate, political manner. Rather than being a product of a singular interpretation of the human relationship to God, religiosity is very often contested as the participants reflect on social action as part of a broader social transformation through their everyday experiences with water as the source of life. Through its ecological practices, the community contributes to the formation of alternative water practices. The active ecological struggle of the community involves the redefinition of human beings as religious subjects in the web of life. At the same time, the activists engage in the active scripting of their religiosity by linking their social role with collective political strategies to transform the hegemonic water order.

Keywords: political ecology, counter-hegemony, ecological religiosity, rain harvesting, Indonesia

1.   Introduction

Within the broad academic debate on water politics,[1] scholars have developed at least five explanations why rainwater harvesting as an ecological project is

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[1] From 2001-2012, at least 370 publications appeared on the topic worldwide, mostly produced by scholars from India, USA, South Africa, China and Australia (Kumari et al., 2013). Cases from several developing countries have emphasized rain harvesting as a practice that manages the local implications of rural-urban inequality in water provision, addresses household water

worth deeper theoretical exploration. Developmentalists locate the significance of rainwater harvesting in its capacity to sustain water supply through industrialization and modernization. In this view, humans' attempts to manage rainwater are seen as mechanisms of survival as well as attempts to achieve a diversification of livelihoods in order to sustain socio-economic productivity (Gupta, 2011). Conservationists argue that potable water is becoming scarce in industrial cities due to population growth and over-consumption, which exceeds the carrying capacity of ecosystems (Recha et al., 2014). However, others point out that rainwater shortage is also a function of the over-extraction of ground water for business purposes. In Yogyakarta, for example, the significant growth in hotels aimed at domestic and international tourists has led to water shortages in the dry season in city centre residential areas (Suharko, 2020; Yuniar & Efendi, 2018).

Security-oriented scholarly research sees rainwater harvesting as a way of addressing water insecurity among farmers and marginalized communities, such as urban squatters, who often lack the collective capacity to store and secure water in the absence of government-provided water supplies (Bitterman et al., 2016). Institutionalist scholars highlight rainwater harvesting as a way to address problems around managing common-pool resources (prisoner's dilemma), and point to the logic of collective action in governing water as a common-pool resource (Islam, 2019; Ostrom, 1990). Rainwater harvesting may also be seen as a symbolic cultural practice that recalls pre-modern models of water management associated with traditional religions and the customary sharing of common resources (Krishan, 2011).

Most studies of rainwater harvesting, however, neglect the political processes as well as the material and ideological forces that shape the revival of this traditional practice. This chapter, therefore, aims at addressing this gap by seeing the politicization of nature as a central mechanism in the formation of an ecological movement.

Block and Nelson (2015) argue that water was the productive base of human existence throughout industrial capitalism. This is well-documented in Marxist ecological scholarship, which analyses the relationship between nature and society as well as the implications of this relationship when control over the use and overuse of the environmental base is redistributed among

security (Assayed et al., 2013), and maintains traditional culture (Mbilinyi et al., 2005), as well as being a part of the expanding response to global climate change (Gendure et al., 2013).

different actors (Benton, 1996; Foster, 2000, 2002). The idea of the commodification and production of nature, however, is also connected with Antonio Gramsci's (1971) notion of "hegemony" and James Scott's (1985) concept of "everyday resistance". In this chapter I make the case for a transformative politics based on the rise of counter-hegemonic discourses and practices and suggest that rainwater harvesting is best seen in this light. This approach suggests that the practice involves both instrumental and ideological motives (Fletcher et al., 2018).

With reference to such instrumental and ideological motivations, this research also takes into account the aspect of religiosity, which informs participants' ecological action. This is because the contexts in which rainwater harvesting has been revived in Indonesia – including this case study in Yogyakarta – are contexts in which religion plays a significant role in community formation and the development and maintenance of collective practices of water resource institutions (Risakotta, 2009). In a classic study, Clifford Geertz (1963) shows that religious beliefs and ecological practices are deeply inter-twined in Java, and this coalescence, and particularly in the political sphere – since urban water availability is highly political in Yogyakarta – is a core theme in this chapter.

My approach to rainwater harvesting is also concerned with the capacity of religion to mobilize, promote, or resist social change through disruptive means (Smith, 1996, p. 1), while at the same time being a moral stimulus for social actors in ecological activism. In religious environmentalism, theological frames and environmental goals shape information exchanges and joint action (Ellingson et al., 2012). The religious dimension may manifest in values and beliefs that underlie pro-environmental personal norms (Stern et al., 1999, p. 84). In this chapter, therefore, the construction of nature is approached from both a religious and a political perspective, and is understood as being produced by social struggles that sustain humanity's interdependence with life and living systems.

2. Framing the counter-hegemonic ecological project of rain harvesting

This research employs Gramscian political ecology to unpack the concept of counter-hegemonic struggle.[2] As Perkins (2011) argues, Gramscian analysis is committed to transformative research that aims to both make sense of and help change the situation under examination by looking at conjunctures of specific types of power shaped by constraints and opportunities. Economic, cultural, and political moments are intertwined in this type of analysis (Ekers et al., 2009).

Hegemony is not only an overarching ideology that reflects the interests of the dominant class and the social atomization and de-politicization produced by bureaucracy, but also the fatalism instilled by religion (Ahearne, 2013, p. 319). The formation of hegemonic ecological projects, such as the industrial over-extraction of water for wealth accumulation, entails consent from the uncritical masses in making sense of the world around them. In Gramsci's understanding, the formation of hegemony is achieved through ideological practices that shape individuals' beliefs and actions (Ekers & Loftus, 2008). Counter-hegemonic political struggle, by contrast, is directed towards re-assembling the relations of human society and nature into an alternative hegemony. In counter-hegemonic projects, individuals reconstruct their relation to nature as a constitutive element of the socio-political order. Moreover, such projects assume that ecological subjects are not passive, but actively involved in the making of ecological reality. An alternative hegemony emerges when socio-ecological movements develop alternative forms of producing and reproducing nature-society relations (Karriem, 2009, p. 218).

Religiosity provides an overarching mental platform that is represented, found, and reflected in ecological activism that has the potential capacity for self-reproduction through the reinterpretation of action and its meaning by its participants. Religious activism concerning environmental struggles may have a "double function" (Billings & Scott, 1994); that is, to legitimize power and privilege on the one hand, and to enable the rise of protest and opposition on

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[2] Some main references to Gramscian theory that this chapter draws on include: Loftus (2012), Ahearne (2013), Ekers et al. (2009), Ekers et al. (2012), Ekers and Loftus (2008), and Gramsci (1971).

the other. Drawing on Gramscian analysis, religiosity is framed, here, as an active conception of the world (Fulton, 1987). In Gramsci's (1971) language:

> To criticize one's own conception of the world means therefore to make it a coherent unity and to raise it to the level reached by the most advanced thought in the world. It therefore also means criticism of all previous philosophy, in so far as this has left stratified deposits in popular philosophy. (p. 324)

In what he described as the most creative and radical elements of Gramsci's thought, Wainwright (2010) argued that:

> The "world" means something closer to that which we are a part of, that makes us what we are, and yet resists our labor to achieve critical consciousness, to become other. The conception of the world can be unconscious, passive and limited, but it can also be a conscious and critical process of becoming. (p. 510)

When applied to the formation of ecological conceptions of the world, real and effective experience is vital to the transmission of political strategy among participants in social movements (Ahearne, 2013, pp. 321–322). The impetus of a counter-hegemonic ecological project also requires the projection of a new cosmology that situates the natural world as a living being rather than an object alienated from its spectators (Reuter, 2015, p. 1219). Likewise, the political strategies surrounding a counter-hegemonic ecological project may take the form of the active creation of new communities and new ways of relating to each other and the world (Ahearne, 2013, p. 324).

The incorporation of ecological values into religious beliefs demands a thorough examination of the political context in which religious believers nurture ecological religiosity. By acknowledging that ecological values are not free from politico-religious contexts, actors who engage in transformative projects anticipate the problems that might arise from questioning political privilege and hegemonic power. Consequently, actors are challenged to become actively politically engaged when dealing with diverse ecological positions.

3.   Method

The locus of the analysis is the Banyu Bening Community (BBC), established in 2012. The location of the secretariat of this community is in Tempursari Village, Sleman District in the Special Province of Yogyakarta. The name "Banyu Bening" was adopted from the Javanese language, in which *banyu*

means "water" and *bening* means "clear". The activist Kamaludin and his wife, Sri Wahyuningsih, are known as the founders of the community. In collecting data, I conducted several interviews with both the founders of the community and activists. I also relied on recent publications on the topics of urban environmental justice, the politics of urban heritage, and water governance in Yogyakarta, published by various scholars. Using the method of participant observation, I have attended and taken part in the community programs between May 2018 and October 2019.

This research method relies on the assumption that human beings are indeterminate, and change according to their social settings and experiences. According to this approach, the material, social, and cultural context is important in explaining the active and conscious elements of social relations. Further, it involves the understanding that, when individuals change, they also change the complex relations that assemble their presence (Jubas, 2010, pp. 228–229). This approach thus allows me to gain insight into the various ideological motivations that drive individual participants when engaging in collective action.

4.   The water crisis in Yogyakarta

4.1   From material crisis to ideological crisis

The impetus of ecological religiosity in the BBC can be traced back to activists' understanding of how historical contradictions in Indonesian society have shaped their relation to water as source of life. On many occasions, activists have used government data and statistics, news coverage in the mass media, and personal communications with government officials who are in charge of water provision to help them identify the root causes of the water crisis in Indonesia. What is important in the work of these activists is not only their factual conception of the water crisis, but also their collective ability to create and re-create meaning out of the implications of the crisis in their everyday conception of religious life.

Daerah Istimewa Yogyakarta, a Special Region of Yogyakarta, is one of 34 provinces in Indonesia. Located in Java, it consists of the city of Yogyakarta and four districts, namely Sleman, Gunungkidul, Bantul, and Kulon Progo. The population in the province is 4 million. The main source of water supply comes from the water catchment created by the Merapi volcano, which is the most active volcano in the Indonesian archipelago and is located 30

kilometres north of the city centre. At the household level, water supply is provided by the Municipal or District Water Service Company, or *Perusahaan Daerah Air Minum* (PDAM), and accounts for 20 percent of the total customer need. From 2013 to 2017, the extraction of shallow and deep ground water constituted 66.5 percent of the total water supply coming from surface water, rivers, and dams (Badan Pusat Statistik Provinsi D.I. Yogyakarta [Statistics Agency of the Special Province of Yogyakarta], 2017).

The context of socio-economic inequality that sets the practice of rain harvesting on the political stage is worth considering when attempting to understand the responses of political actors to the water crisis. The hierarchy of power in Yogyakarta is derived from post-colonial power sharing, that assigned special authority to the Yogyakarta Sultanate to run governmental affairs as an autonomous region. Consequently, the sultan acts as governor and this political status is not a product of political election. This political privilege has continued to maintain the infrastructure of the sultanate's governing power. Besides this, the sultan is seen as a spiritual leader and as the source of material welfare and spiritual blessings. The spiritualization of the sultan's power is a factor one cannot neglect in understanding the complexity of current ecological problems facing Yogyakarta society. This is particularly present in the relation between the state and the people as well as among society members, with regards to the asymmetrical access to and inequality in natural resource politics.

In Yogyakarta, the hegemonic water order's focus on extraction is a product of growth-oriented development strategies implemented by the provincial government. The politics of cultural heritage and tourism are oriented not only towards reshaping the identities of urbanizing society, but also towards engaging with both domestic and international economic agents. The ongoing practice of water commercialization allows profit-oriented sectors to continuously accumulate the monetary values of Yogyakarta's economic resources in global market capitalism (Siregar, 2019). Tourism and education are now the backbones of growth, and both rely on the increase of the supply of clean water for households and commercial use (Sandera, 2019). From 1980 to 2017, the water needs of hotels increased disproportionately (by as much as 300 percent) in comparison to those of residential areas (Manifesty, 2019). As of 2020, the Special Province of Yogyakarta is the province with the highest level of inequality in consumption expenditure in Indonesia (Badan Pusat Statistik [Indonesian Statistics Agency], 2020).

The urban-rural divide has exacerbated inequalities in clean water access, particularly when it comes to groundwater sources. Piped water supply systems provided by the government are mostly located in the centre of urban areas. Even in urban areas, however, there are certain localities that do not have sufficient access to clean water. This is because these areas are not part of the water supply network provided by the government. This issue is addressed, in particular, by community-based organization at the sub-village level (Arum et al., 2006). Communities living in the centre of the Yogyakarta city mostly consider rainwater to be unreliable for drinking. Before the government provided water piping infrastructure networks, they extracted ground water by building wells. In accessing drinking water, furthermore, local residents have a strong dependence on access to commercial water supplies provided by the mineral water industry. In other districts, such as Gunung Kidul, rural communities have prioritized the use of rainwater for generations. They store the rainwater in concrete water tanks and boil the water before drinking it. However, this practice has come under threat from forces of modernization. When the government started to build a piped water supply system, local communities decided not to preserve the rainwater tanks they had previously built. Such de-engagement with rainwater is perceived as a source of ecological crisis by the BBC. Indeed, when the dry season comes, many sub-districts rely on the Regional Disaster Management Agency (*Badan Penanggulangan Bencana Daerah*, BPBD) for their water supply, and this has been an annually recurring phenomenon that is reported on in the mass media.

When asked why they took part in the rain harvesting project of the BBC, participants point to the disparity in water access across different social groups and to the failure of public infrastructure. There is a sense, however, that the problems are deeper than they might appear on the surface. As the BBC founder put it:

> This movement was inspired by a concern that Indonesian society has for such a long time neglected the abundant potential benefits of rainwater. How is it possible that in a country where the rain precipitation is high, we can still find cases of drought happening in many places? There is definitely something wrong with the system. (Kamaludin, personal communication, March 23, 2019)

This attention to systemic failure has informed the multi-level sites of struggle of the participants from the moment that they assumed their active political roles. Uneven water access has gradually resulted in social unrest in

Yogyakarta city. Communities affected by water injustices actualize their political activism through community organizing and direct tactics under the banner of "*Jogja Asat*", or "Yogyakarta is drying out". Relying on grassroots protests at the village level, they direct their criticism towards the relentless spatial change in Yogyakarta city, specifically the urban sprawl resulting from the development of hotels and other types of accommodation (Suharko, 2020; Yuniar & Efendi, 2018).

Urban development is inseparable from the reproduction of the sultanate's power that extensively regulates most spheres of people's life. The interaction between the sultanate and the capital has shaped the redistribution of natural resources such as land, water, and urban space. The cultural power associated with the sultan as an Islamic Mataram leader with a strong political predisposition also dominates the religious life of Muslims as the majority population in Yogyakarta (Sullivan, 1986; Wardani et al., 2013). The philosophical unity between subject and ruler shapes the dominant influence of the provincial government despite the reorganization of structural power following political decentralization in 1998 (Subanu, 2008). As regards to state-society relations in the area of public infrastructure provision, communities do not have sufficient power to influence policies and engage in decision-making processes when articulating and achieving their collective objectives (Roitman, 2016).

Rather than seeing the water crisis as a mere product of unequal material access, there is a willingness among the activists to interrogate the deeper ideological mechanisms that shape the current situation. Mainstream strategies that question the existing water order view community movements as part of a struggle towards policy change, with all their perceived constraints (Roitman, 2019). What is taking place in the Banyu Bening Community, however, represents a different type of political struggle. Here, participants engage in self-reflection to redefine the ideological foundation of life at the individual level—and this self-reflection strongly shapes their political choices when responding to the current water crisis. This self-reflection is concerned with scrutinizing the internal forces that have dominated their worldview and normalized their interaction with "the other social" and "the other nature". Consequently, the crisis is not merely seen as the product of policy failure or a consequence of policies chosen and implemented by the government on various administrative levels (central government, district/municipality, sub-district, and village). For the activists

of the BBC, rainwater gives a deeper meaning to human life and very often connects human beings with their creator.

4.2   An alternative spiritual understanding of water

The spiritualization of water is part of the long history of the Yogyakarta Sultanate in maintaining its power. The symbolic power of the palace appears in various community rituals held occasionally along the cosmological axis that connects Mount Merapi with the South Sea. Even though industrial forces treat water as a secular object in the capitalist market, in everyday practice, there is a continuous mixing of secular forces and religious forces that, together, assemble this power formation. The ideological elements of this process subsequently normalize the distance between ordinary residents and political as well as religious leaders in the name of the politico-religious unity upheld by the dominant order. This dominant spiritual order has actively shaped the "common sense" values of ordinary residents.

In Indonesia, people source drinking water from piped water systems, wells, rooftop storage tanks, and packaged plastic containers. Very few households use rainwater as a source of drinking water, even though several efforts have been made to introduce the practice through various public forums, policy discussions, academic seminars, and publications, as well as community-based advocacy. At the moment, Indonesia is the second-largest market of packaged drinking water in Asia after China (Walter et al., 2017). Packaged drinking water is available in many sizes, ranging from 1-5 liters of water sold in single-use bottles and 5-19 liters sold in reusable plastic jugs priced at up to IDR 19,000 (Cohen & Ray, 2018). Both branded and domestically-produced refillable packaged drinking water are available on the market and the price of the latter can be 30 percent lower than the former (Kooy & Walter, 2019). Indonesian consumers started to use packaged drinking water in 1901 during the Dutch colonial era. Further commercialization began in 1973 through the introduction of glass bottles of water for socially-privileged consumers. In 1998, Danone, a French company, invested in this business and introduced more affordable plastic bottle packaging, reaching a broader social segment with prices as low as IDR 2,600 (Prasetiawan et al., 2017). Indonesia is now home to 700 companies producing 2,000 brands of packaged drinking water (Yulianto et al., 2019). People have shifted their source of drinking water consumption to bottled water because of insecurity about being able to fulfill their needs for water. This is argued to be a product of unsustainable supply as well as the absence of regulatory practices to secure people's access to water

(Pacheco-Vega, 2019). Moreover, consumers perceive piped water as unreliable for drinking because of its limited coverage. What's more, if it does reach a population in need, the quality of water along the distribution network is inconsistent (Prasetiawan et al., 2017). Many residents respond to this situation by relying on commercial water providers, gradually leading to increasing dependence on these providers' products.

People's dependence on commercial drinking water has become a normalized feature of the everyday lives of people in Yogyakarta. It is not limited to the presence of packaged drinking water in formal meetings of government officials and political elites, but is also widespread in various religious events in urban and rural areas. On the main streets of the city, billboards depicting residents consuming commercial drinking water products as leading glamorous, socially-privileged lifestyles entice people from many other segments in society to adopt a similar lifestyle. The presence of commercial drinking water in various types of packaging is now an inevitable part of life in public places. Only recently have people started to show concern regarding the use of such products, due to the environmental impact associated with the accumulation of plastic waste.

The rise of the counter-hegemonic force embodied in the rainwater harvesting project of the BBC seeks to actualize political resistance through an alternative spirituality, by redefining rainwater as a political object and by reconfiguring politico-religious practices around its presence. In other words, activists are attempting to construct an alternative spirituality that will restructure the existing water order into a politically desirable system. Such political effort, however, does not simply locate water in a dichotomous tension between industrialized water and non-commoditized water, as the reality is much more complex.

Central to the political struggle of the activists of the BBC is the belief that water, similar to humans, is a living being. Water is not treated as a totem, but is recognized as a living entity that possesses the agency to express its responses within its complex relations with human beings. In this view, water is not seen as an autonomous power that is distant from humans. In an interview, Kamaludin explained that verses 48-50 of Surah Al-Furqon of the Qur'an are among the most important ideological references of the movement:

> And He is Who sends the Winds as heralds of glad tidings, going before His Mercy, and We send down pure water from the sky. That with it We may give life to a dead land, and slake the thirst of things

We have created, cattle and men in great numbers. And We have distributed the (water) amongst them, in order that they may celebrate (our) praises, but most men are averse (to aught) but (rank) ingratitude. (The Qur'an, 2001, 25: 48-50)

According to the activists of the BBC, to understand God's presence there has to be a continuous reflection on the holistic condition that allows human beings to flourish in the universe. In the activists' view, water is able to send messages from God. However, in order to comprehend these messages, the activists believe, human beings must make an effort to sense the meaning of these messages, and concretely apply them in their everyday lives. Thus, the relation between the participants in the movement and water is conceived as a relationship among living beings. This has also shaped the concept of collectivity within the community (Y.K. Ali, personal communication, March 23, 2019). From the viewpoint of structurally disadvantaged groups, therefore, an alternative interpretation of spirituality is a crucial element in questioning the dominant order.

5.   The rise of ecological religiosity

5.1   Religiosity as a life-preserving system: water as sodaqoh

Rain harvesting as spiritual practice is used as a means for activists to respond to the systemic weaknesses of the current social order. Likewise, it is a way for them to preserve their own lives and the lives of others. The community uses the technique of electrolysis to process harvested rain into drinking water. In doing so, they actively acquire and mobilize knowledge by engaging with many different elements in society, including engineers, academics, and individuals from various backgrounds who share a common concern for alternative sources of sustainable drinking water.

In an effort to make their ideological commitment concrete, the BBC has adopted and practices the concept of water as *sodaqoh*. The concept of water as *sodaqoh* is taken from the interpretation of a *hadith* of the Prophet Muhammad: "The best charity is water given for drinking (to the public)" (Sunan Abu Dawud, 2008, p. 310, no. 1679).

For the activists of the BBC, the concept of *sodaqoh* – providing free water to other living creatures – has philosophical implications that go beyond "easing thirst". As an ideological commitment, it counteracts power relations that

produce the persistent socio-economic exclusion of humans and other living beings from the web of life. The activists strongly criticize the commercial practices that arise from the various uses of water resources. To them, water should remain part of the commons and should not be treated as a commodity. Moreover, they see the commercialization of water as a form of social injustice, emphasizing how such practices reveal the absence of religious commitment in an ostensibly religious society. As one of the informants stated: "*Fakir* or poverty is the source of *kufr*" (Y.K. Ali, personal communication, March 23, 2019).

From a counter-hegemony perspective, understanding water as *sodaqoh* identifies water as a potential site of resistance to the commercialization regime that characterizes the modern water supply system in Indonesia. It points to the political desire to transform the existing social order, which relies on the monetization of water access, to one that is based on the self-sacrificing preservation of life. Not only does this practice entail a deep ideological commitment, it has also served as a concrete means to address the politico-economic effects of water commodification.

The pious dimension of environmental activism in the BBC is a mixture of social compassion and political objection to water inequality. When the author had a chance to visit the Banyu Bening Community house, the neighbours came and filled their water jars for free with rainwater from the electrolysis unit. Some of them enthusiastically shared their experiences with using the water, as they believe it has the ability to ease their illnesses. One of the activists, Purnomo, delivers alkaline rainwater to cancer patients in Gunung Kidul District. While this could have been a commercial activity, he has been doing this for free because, as he argued, rainwater is not a commodity, but a gift. Such a phenomenon is quite rare considering that water has generally been treated as a tradable commodity subject to market price.

5.2   Debunking ecological common sense

Through its philosophy of praxis (Gramsci, 1971), the Banyu Bening Community reproduces the religious interpretation of the human relationship with water in a closely-knit dialectics of its material and ideological dimensions. In the community, religiosity is produced along with the accumulation of environmental knowledge among community members, and is actively circulated in textual dialogues. Furthermore, religious interpretation has been the ideological source of knowledge formation. In the

BBC, the collective understanding of water as a living being and as the source of life plays a key role in inciting a collective sense of social solidarity. The BBC has developed the term "*banyu udan sumber panguripan*", or "rainwater as the source of life" as a political statement that informs their act of resistance to the dominant water system. In general, knowledge circulation among religious communities has been the spiritual source of collective ecological cohesion as well as the inner force that sustains the spirituality of the movement.

5.2.1   *Critics of mainstream religious practice*

The rise of religious environmentalism is linked to the concept of the "environmentalism of the poor" (Martinez-Alier, 2002), which emphasizes the livelihoods dimension of politico-ecological struggles led by less-privileged groups in society. Its driving force is the unequal distribution of resources that lends more privilege to the rich in socio-economic and power relations. Rather than a result of imposition by dominant actors, the participants' activism is shaped by various critical articulations of religiosity.

The ability to produce critics of the politico-ecological status quo that sustains the current water order is considered to be the transformative aspect of the political struggle of the BBC. As religious leaders have gradually started distancing themselves from everyday environmental problems, members of the BBC have developed religious ideas that they put into practice to various degrees. One activist highlighted that:

> When the operations of a bottled water company have led to the suffering of its surrounding community, its practices shall be considered *haram*. However, this kind of issue has never been popular among mass media audiences for political reasons. Why do we never engage in everyday issues that demand a problem-solving response? During *Idul Fitri* or *Idul Adha* speeches, we are always reminded that humans revert to purity. However, the meaning of purity has never been further interrogated. Purity from what cause do we mean? There is almost no further question as the answer is always generalized to Ramadhan. The meaning of Ramadhan, sadly, has been reduced to experiencing physical hunger rather than expanding a space of religiosity to reflect on the most pressing issues in the society, such as those related to environmental crisis. (Y.K. Ali, personal communication, March 23, 2019)

Efforts to transform the dominant practices that sustain people's dependence on commercial drinking water often face structural constraints. For one activist, the difference between *kitab teles* (literally, "thick book") and *kitab kering*, (literally, "thin book") was the most appropriate way to describe the challenges facing *ummah* when dealing with the water crisis (Y. Khoiri Ali, personal communication, March 23, 2019). The politics of everyday life in which culture, religion, and political hierarchy shape such structural constraints also creates its own challenges. Profit-makers in the drinking water provision sector also continue to reproduce a strong public and social image associated with the maintenance of the hegemonic order. Finally, people's consent to this ideological scheme has been a crucial element in sustaining the existing water order.

5.2.2   *Ecological awareness as everyday practice*

During community gatherings and in public meetings, the members of the Banyu Bening Community pronounce their understanding of environmental awareness while intermixing this with religious speeches. In their social media group, furthermore, they circulate texts from the Qur'an and reflect on their experiences of practicing rain harvesting. What makes their ecological awareness live and sustain itself is the continuous reproduction of alternative thinking and alternative practices in their everyday life. As Sri Wahyuningsih asserted:

> It takes years to get into this point where individuals who engage in this movement are able to practice what they believe. Community members seek to broaden their knowledge about the value of rainwater and to practice techniques for harvesting rainwater in their households. We are dealing with a complex and heterogeneous society. The social result is very different depending on the local context. I will probably never be able to explain how, in certain moments, I had the privilege to build fruitful dialogue with people and trusting relations with people who would [normally] have been very distant, as they had notably inherited certain social privileges in society due to their professions. (S. Wahyuningsih, personal communication, March 23, 2019)

For the activists of the BBC, Islam is a religion that embraces *rahmatan lil alamin*. According to this concept, rainwater pours down and lives for animals and humans – regardless of their religion. The BBC activists take this concept as an important philosophical basis of the movement and, as such, this

concept strongly shapes their activism. For instance, embracing religious differences has become a part of the movement's philosophy of praxis. As the founder of the BBC explained:

> When it comes to *aqidah*, it is an issue of privacy that one should not interfere. When people asked me what is the basis of this movement, I always answered it is Islam. I suggest to religious believers to consult their holy books and to have a dialogue with religious leaders to learn from their religious practices. I believe that it is important to understand how religious believers make meaning out of their relation with rainwater based on their reflection on religious teachings. The shape of the movement that we are witnessing now is in fact the product of constructive dialogues taking place in my encounters with people from so many religions. (Kamaludin, personal communication, March 23, 2019)

In addition to such everyday encounters, the Banyu Bening Community has hosted the annual ritual of Kenduri Banyu Udan since 2016 as a way of showing their gratitude for all blessings provided by God. Kenduri represents a mixture of Javanese and Islamic culture, which continues to maintain its specific meanings in a changing Javanese society. Religious leaders from different faiths, public officials, social figures, academics, artists, and many other groups and individuals participate in the event. This symbolic annual ritual is also a politico-cultural-religious strategy that sustains the material and ideological foundations of the counter-hegemonic movement.

5.3   *Reconceiving spiritual ecology: science as co-production*

In the Banyu Bening Community, activists learned to combine traditional methods of rain harvesting with modern knowledge. The use of the technique of electrolysis is the most prominent way in which the practice of making rainwater accessible for livelihood purposes has been modernized. Rain harvesting is done through collecting water in filtered tanks during periods of high-intensity rainfall. The first harvest is usually done approximately 15-20 minutes after the first raindrop. This time lag in the filtering process is crucial to ensure that dust particles do not flow into the tank. Through the process of electrolysis, the rainwater is separated into two distinct containers that produce acid and base water. While the base water can be directly used for drinking water, the acid water is used, among other things, in fertilizers, hand sanitizers, and disinfectants.

While initially developed on a small scale in Tempursari Village, the BBC now engages with various audiences ranging from government to non-governmental actors at the local, national, and international levels. Recently, in September 2019, the BBC established the Rain Water School (*Sekolah Air Hujan*, *SAH*) to disseminate community knowledge to a wider audience. Every Saturday, the BBC conducts knowledge exchanges to introduce rain harvesting techniques and provide information about the utilization of rainwater in various livelihood sectors such as agriculture, farming, and healthcare. National media coverage of their activities has allowed the BBC to voice their concerns widely. Visiting schools, universities, religious forums, and various other community events has become a regular activity in the BBC's daily schedule.

Taking a pluralist view on knowledge development, the members of the BBC have expanded their technical capacity by developing their rain harvesting system as an open-choice practice for individuals. When asked whether the movement is associated with a particular religion, the founders explicitly state that this movement is based on Islamic teaching, while recognizing and appreciating other religious values that engage with their transformative agenda. The intra-religious and inter-religious aspects of social relations within the movement, therefore, are highly relevant in understanding the congruence of value systems that shapes their perspectives on the social implications of rain harvesting.

Historically, rain harvesting has been part of the survival strategies of communities in water-scarce areas in Indonesia. The historical presence of such practices, however, does not necessarily translate into consistent practice today, due to the limits of public infrastructure as well as the politico-economic constraints facing marginalized communities. For a long period of time, rain harvesting was reproduced as a local and community-based practice, that was practiced on a small scale, and in a narrow geographical scope. Today, the participants of the movement are involved in a continuous redefinition of politics, as they continually have to negotiate the boundaries of their collective knowledge struggles. The material embodiment of rainwater has been a subject of technocratic knowledge claims, for instance through the use of laboratory testing to ensure its safety and compliance to government standards. The boundaries between "the secular" and "the sacred" are continuously renegotiated as the members of the BBC engage their personal and collective experiences and reflect on the process they are involved in. This process also constitutes establishing wider social interaction across

various socio-political categories that are often seen as barriers to substantive engagement.

6. Conclusions

A Gramscian view of religiosity as a counter-hegemonic project offers a critical re-assessment of how the relations between religiosity and the political status quo are much more complex and dynamic than has previously been imagined. The presence of counter-hegemonic forces in the political struggle to transform water inequality demands an interrogation of how religiosity is taken into account in the politics of life. Religiosity enters into the political orientation of the activists of the BBC when responding to the socio-ecological consequences of the politico-religious dominant order and its limited ability to bring about social justice. It is also reflected concretely in participants' political choices and their sense of belonging concerning their ecological cause. Through its practice of rainwater harvesting, the Banyu Bening Community is interrogating a fundamental crisis integral to the current water order, which sees water as a factor of production as a result of its historically-situated common sense and neglect of concrete religious values. Ecological religiosity as philosophy of praxis is involved in seeking its place in the complex struggle between secular ecology and religious ecology that shapes the overarching moral spirit of the interactions of humans with their fellow living beings.

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CHAPTER 8
"CLEANLINESS IS PART OF FAITH".
RELIGIOUS VALUES IN WATER MANAGEMENT IN WEST-JAVA, INDONESIA

Frans Wijsen, Haryani Saptaningtyas

Abstract

International organizations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank (WB) want religious and faith-based organizations to play their part in raising environmental awareness. But, can these organizations do that? What is the relationship between religion and natural environment? How do believers interpret environmental changes, and how do they respond to them? The main question that is addressed in this paper is whether religious values can be used in waste and water management. It explores the relation between pollution of Citarum River and purification in Islamic thought using a comparative case study in a rural and a semi-urban site. This paper concludes that policymakers cannot be naïve in promoting religious values in water and waste management but must be critical. They must be aware of the variety within religious traditions, and of the religious activity outside the religious institutions.

Keywords: Purity in Islam, pollution, integral river management, West-Java

1.   The research issue

In response to ecological challenges such as water pollution and river floods, clean technologies and integral forms of waste and water management emerged. In a nutshell, there has been a shift from traditional river management, based on expert knowledge, to alternative river management, based on co-creation. Co-creation requires participation of various stakeholders such as scholars, civil servants, business people and civil society groups in problem-solving (Smulders-Dane et al., 2016).

In secular societies, religious and faith-based organizations have been ignored in river management, but in most non-Western societies they play a role in inspiring people and offering social services to them (Crabtree, 2010). Therefore, religious leaders, policy makers and international organizations urge faith-based organizations to actively be involved in environmental conservation (Macer, 2011; Niamir-Fuller et al., 2016). But, what is the relationship between religion and natural environment? How do believers interpret environmental changes, and how do they respond to them? The main question that is addressed in this chapter is: what can scholars of religion contribute to waste and water management?

This question is rooted in a long debate on religion and development (ter Haar, 2011; Klein Goldewijk, 2007; Quarles van Ufford & Schoffeleers, 1988). Can faith-based organisations make a difference concerning development? Do religions have an added value in this field? Since Max Weber published *Die protestantische Ethik und der Geist des Kapitalismus* in 1934 there has been a heated debate about the relationship between religion and development (Berger, 2007, pp. 237–238; de Jong, 2011, pp. 121–124). Weber (1934) noted that the Western world is more developed than the rest of the world, and within the Western world, that German Protestants were richer than German Catholics. Economy could not explain the difference. In his view German Protestants were richer because of their work ethic. But is there enough evidence for a causal relationship between Protestantism and prosperity in Weber's work? And was it Protestantism that caused Capitalism, or was it the other way around?

Correlations between religion and development are not robust (de Jong, 2011, p. 128). This is because (1) concepts are difficult to define and to translate in operational terms, and (2) because religions are not homogeneous but multi-dimensional (Glock & Stark, 1965). So, what is religion? Is it belief, ritual, morality, community, law? And what is development? Is it economic growth, progress, well-being, quality of life? So, how do we measure religion? Moreover, various aspects of religion can have opposing effects. For example, Catholic social teaching promotes development and peace; but Catholic sexual morality promotes population growth, and in territories where there is a scarcity of natural resources, population growth correlates with conflict over arable land and potable water.

It is more fruitful to study the relationship between aspects of religion and aspects of development. For example, empirical studies found a significant

correlation between belief in heaven and hell and economic growth (Barro & McCleary, 2003). In this chapter we focus on the correlation between the Islamic notion of purity and water and waste management in West Java. We present and reflect on the findings of a doctocal research project studying the use of religious values in cleaning Citarum River (Saptaningtyas, 2020; Wijsen & Saptaningtyas, 2016).

Whether or not religion contributes to development, insights into religion can help to avoid making mistakes in water management. For example, out of the best intentions, a Dutch company built toilets in West Java, but they were not used. Our research found that the intended users of the toilets, in a territory where puritan Islam (Persis) was strong, face the *qiblah* (Mecca) when using the toilet. If the engineers had taken religion into account, and if they had consulted the users, they would have known this constraint and would not have built the toilets as they did.

Happily, the contribution of religious values to water management has been recognized by various governmental and nongovernmental organisations, on international, national and regional levels (McAnally, 2017, pp. 1–24). On international level, the "Sustainable Water Management Improves Tomorrow's Cities' Health" in Asia (SWITCH-in Asia) programme of the United Nations Educational, Scientific and Cultural Organization (UNESCO) includes water-related Islamic theology in the curriculum development for Islamic schools. On national level, the Ministry of Environment launched a program on eco-*pesantren* to promote environmental awareness in Islamic teaching (Deputy for Public Participation and Environmental Communication, 2014). The same applies on the regional level to the Citarum Integrated Water Resources Management (IWRM) program (Citarum Roadmap and Investment Program, 2017). Here religious leaders and religious institutions are explicitly named as partners.

2.   Theoretical background

From 2002 until 2008, Radboud University led the *Freude am Fluss* (Joy at the river) programme, including twelve parners in three countries (Germanny, France and The Netherlands), and financed by the European Union. The programme aimed at a new theory and practice of river management. It studied the floods of the rivers Rhine, Loire and Waal, in order to cope with the consequences of climate change. The programme was based on the joint

planning approach inspired by the idea that river management is not only a government concern but a shared responsibility of all stake-holders who enjoy and depend on the river for their living (Fliervoet, 2011, pp. 141–144).

Wealthy Waal Project

One of the case-studies conducted within the *Freude am Fluss* programme was the *Waal Weelde* (Wealthy Waal) project, a bottom-up and multi-stakeholder endeavour initiated by Radboud University in 2006 (Scholten, 2011, pp. 35–37). The project was based on the collaborative effort of (regional, national, provincial and local) governments, non-governmental organisations, industries and Radboud University. The university contributed in terms of new technologies and research-based policy-making (Winnubst, 2011).

River Waal is an affluent of River Rhine. It is described as a major water highway connecting Europe's largest industrial plant, the *Ruhrgebiet* (Germany) and Europe's largest sea port, Rotterdam (The Netherlands). It is navigated by 165.000 ships per year transporting 150 million tons of cargo per year. The Wealthy Waal project was ambitious and not easy. Nevertheless some lessons can be drawn from it (Smulders-Dane et al., 2016).

The project is called Wealthy Waal. It combines and coordinates various, often conflicting interests or policy goals, such as water quality (preventing pollution) and safety (preventing floods), energy transition, providing housing and business opportunities, recreation and tourism, protecting nature and cultural heritage. It includes four interest groups, namely governments (local and regional), businesses, non-governmental organisations and knowledge centres.

The Wealthy Waal project aimed at a transition from traditional river basin management to sustainable river basin management. It used a co-creation experiment, linking short-term gains with long-term objectives, engaging local actors and stake-holders, and identifying win-win situations, or changes that are profitable for all stakeholders. The vision behind it has been that the government should not take the lead, but coach co-creation.

Rules of the game accepted by all partners were that there was a focus on the river system and transparent planning; that all partners participate in a Community of Ownership including entrepreneurs, civil servants, activists

and scholars, and applied the Framework for Strategic Sustainable Development set forth by The Natural Step. This included a model for planned change based in the tradition of action research, the ABCD approach: Awareness, Baseline analysis, Compelling vision and Down to action (Robèrt, 2002).

Results were creating flood-proof landscape, giving space to housing and recreation, and solving the dilemma between protecting nature and providing safety. The Wealthy Waal project integrated various levels of policy making, namely international (River Rhine Regulations), national (Dutch), regional (province of Gelderland), and local (15 municipalities), as well as top-down and bottom-up approaches.

The conditions formulated for a successful co-creation process have been (1) joint visioning and common language with respect to sustainability; (2) flexible time frames for project management; (3) allocating funds beyond political time frames; and (4) strategic leadership.

So far lessons drawn concern (1) the attitude towards nature, and (2) the process of co-creation. First, there is a need for a fundamental shift in environmental ethics. Traditional river basin management correlates with an ego-centric mastery over nature; sustainable river basin management correlates with eco-centric stewardship of nature. Second, there is a need for a new style of project management. Experts of water management focus more on the facilitation of a joint design and adaptation measures (de Groot, 2012, pp. 7–9)

Water, Health and Development

Based on its long-standing international collaboration with Indonesian universities, Radboud University wanted to share the lessons learned in the Wealthy Waal project with Indonesian partners in a province that faces the same conflicting interests. The research team opted for the Upper Citarum River basin in West Java because some if its researchers were active there already, conducting research on dengue, a water-related disease. From a comprehensive view of development, pollution, disease and poverty are related. So, by promoting 'healthy' cities or rivers, they become wealthy. For this purpose, a Netherlands – Indonesia network of universities, civil society groups and private entrepreneurs was created, called the Alliance for Water, Health and Development.

The three lessons that the research team wanted to share were, first, that you can only solve complex problems through a comprehensive approach. What we saw happening in the Citarum River Basin was that water engineers solved one problem, but they created new problems. While normalizing the river, they put polluted mud next to the river, where children were playing. Instead of cleaning the river, they created a health problem. Moreover, the government promoted digging wells. But, when millions of people start digging wells, the ground water level goes down and well water gets polluted. Other problems were related to cleaning the river. By cleaning the river, poor people who earn their living collecting plastic waste lose their job, and need other sources of income. This applies also to farmers on the hills who cut trees to create agricultural land. If you prevent them from doing so, you must give them other means of living.

Although the Citarum Roadmap and Investment Program (2017) proposes an Integrated Water Resources Management Program, in practice the approach is compartmentalized. Of course, being a small university in a far-away country we were aware that we could not solve the huge problem of the Citarum River Basin. But, what we could do was to train Ph.D. candidates to think in a more comprehensive way. So we trained Ph.D. candidates in health, economy, water management, culture and religion, supervised by professors from different disciplines, both Dutch and Indonesian, learning each other's languages and perspectives.

The second lesson that we wanted to share is that you can only solve problems in a sustainable way if you can show that change is profitable and include entrepreneurs through a public-private partnership. Cleaning a river is costly in the short run, but profitable in the long run. You need an initial investment, but after a while you get a return in terms of restaurants, sports activities, more expensive housing, and so on. Moreover, waste from the river is the raw material for new products. For example, you can use the'waste to produce bio-gas, creating energy-neutral cities. In a town such as Nijmegen, where Radboud University is located, public busses run on bio-gas.

The third lesson that we wanted to share is that you can only solve problems if you include the stakeholders and users of water. The solution cannot come from the government, or from the government alone. Thus, it is not so wise to use soldiers to clean the river, as Indonesia president Joko Widodo did in the Citarum harum programme. This is only a short-term solution. From the

perspective of including stakeholders, the research team took religions and faith-based organisations into account.

New public management

In the Wealthy Waal project, churches (buildings) were mentioned only once, as manifestations of historical heritage that was to be preserved, not as contemporary institutions that give orientation and inspiration to human behaviour. The project reflected the dominant secular attitude in Northwest Europe, strictly separating religion and state. However, this attitude shifted due to new public management theories and public-private partnership.

In contemporary policy sciences literature, the shift from 'government' to 'governance' – also referred to as 'new public management' studies – is viewed as a consequence of the neo-liberal agenda introduced in the 1970s in many countries, including Chile and China. This new perspective then spread to the United Kingdom and the United States, and subsequently it was adopted by the International Monetary Fund and the World Bank, providing a counter-force to the normative agenda of communism (Gauthier et al., 2013, pp. 13–15).

This shift in framework from 'government' to 'governance' (Martikainen, 2013, pp. 131–133) can be summarised in the following developments: (1) a move away from the welfare state to an increased involvement of non-governmental organisations in the provision of social services; (2) a blurring of boundaries between public and private spheres, with a change in the role of the government from control to regulation; (3) an encouragement of local group self-governance, and public-private partnerships in the handling of political, social and economic issues; (4) the replacing of a top-down style of decision making with a bottom-up approach to policy formation, stimulating participation of civil society organisations in the process of governance; and (5) the building of partnerships and a lessening of hierarchy in coordinating networks.

In response to the waning of the state, in Northwest Europe religious and faith-based organisations are recognised again as partners of the government in offering social services. For this reason scholars speak about 'post-secularism' (Molendijk et al., 2010, pp. ix–xii). By this term they do not mean that there is a resurgence of religion in Europe, but that religion returns to the

public domain, that religion becomes visible again, reversing Luckmanns' thesis on 'invisible religion'.

If this is the case in Northwest Europe, it is even more so in Indonesia. Thus, there was a reason to include religion in our research project. First, the over-whelming majority (99%) of people in Indonesia say that they are religious and that they attach great value to religion (Crabtree, 2010). Second, faith-based organisations provide a large proportion of social services (Latief, 2012). Third, religious leaders are considered to be trustworthy and less corrupt than government leaders. Fourth, the Citarum Roadmap and Invest-ment Program (2017) mentions faith-based organisations as stake-holders.

3.   Research Method

From this perspective we wanted to contribute to the Alliance for Water, Health and Development. We asked ourselves: What can we as scholars of religion contribute to water management? Scholars of religion are good at interpreting texts and traditions. We started from a social-constructivist and discourse-analytical perspective, acknowledging that people 'see' their situation in different ways and that it depends on their interpretation whether or not they see their situation as problematic and are willing to act (Hajer, 2002, p. 40).

Environmental degradation is not a problem by itself, but it is perceived, interpreted and framed as a problem (Fliervoet, 2017; Hajer, 2002, p. 17). This is not to say that environmental problems do not exist, or that they are only interpretative, but that perception and interpretation play a role in how people cope with environmental issues. Consequently, we asked: 1) What is the relation between the perception of purification in Islamic thought, and the perception of pollution in Citarum river; and 2) What is the relationship between these perceptions and the practices of water use, more specifically the practice of ritual washing (Wijsen & Saptaningtyas, 2016)?

Conceptually we focussed on lived religion, practical reason, cognitive dissonance, and dialogical self. Lived religion is the every-day religion of ordinary people, not the religion that is learned in religious institutions (Stringer, 2008). Practical reason refers to logic that actors under specific circumstances use to find solution to their every-day problems (Bourdieu, 1998). We speak about cognitive dissonance if two or more cognitions, or

cognitions and practices, contradict each other (Festinger, 1957). By dialogical self we mean that a person has a multiplicity of 'voices' among which dialogical relationships exists. For example, when buying drinking water, one internal voice says that I go for the cheaper, though polluting plastic bottle, and the other voice says that I go for the more expensive, but cleaner alternative. Between those voices there may emerge a conflict or a compromise (Hermans, 2018, pp. 382–385). Whereas cognitive dissonance usually causes discomfort in a person, dialogical self refers to the process to reduce discomfort by harmonizing conflicting voices in the self.

So we did not study texts and traditions of Islam, but the situational knowledge of the people, knowing that ordinary believers are not primarily interested in dogmatic precision but in pragmatic solutions to their everyday problems (Stringer, 2008). We were also interested to study whether people always strive for consistency between various cognitions, and between their cognitions and practices.

Technically we used a comparative case study as strategy and discourse analysis as method. This method focuses on how discourse coalitions develop and sustain shared ways of thinking and talking about realities that are considered to be real and right. We studied where certain story-lines come from and how they are combined (Hajer, 2002, pp. 8–16). We conducted interviews in two locations, a rural site namely Kampung Mahmud, Mekar Rahayu Village, Margaasih sub-district, Bandung District, and a semi-urban site, namely Cigondewah Kaler, West-Bandung sub-district, the City of Bandung. We selected a rural and a semi-urban site assuming that we would see the effects of urbanisation and modernisation.

Picture of research location. The rural site is 'Mahmud'. The urban site is 'Baturengat'

4.   Results

Both sites, Kampung Mahmud and Cigondewah Kaler, are located in the upstream part of the catchment area of Citarum River, which is affected by pollution and floods. The region is inhabited by Muslims who need water for domestic (drinking, cooking, cleaning, bathing, washing) and ritual (ablution) usage. On average, a Muslim uses five litres water for each ablution, five times per day; this makes twenty five litres per day for ablution only.

Kampung Mahmud

In economic terms, at the rural site, Kampung Mahmud, people are farmers, craftsmen and local businessmen. In the past, Citarum River was a source of income for the people. There was fishing, and digging of sand. There were many kinds of fish such as *harmis* and *kijing*. A that time, the river was deep, because people were digging sand to be sold. However, the river is now heavily polluted by domestic waste and pollution caused by factories. Currently, the only fish that live in the river is *sapu*.

In religious terms, Kampung Mahmud people stick to traditional religious values. Religious attendance and pilgrimages to the tomb of Eyang Mahmud

are considered indications of religiosity. Eyang Mahmud is considered to be the founder of the neighbourhood. He was a very pious Muslim who had accomplished the pilgrimage to Mecca at a time when this was extremely difficult. His spirit or magical presence is believed to protect the land and its inhabitants, as they consider themselves to be his descendants.

Kampung Mahmud has been named a "traditional village" (*kampong adat*) by the Government. The Government also established the Eyang Mahmud Foundation to safeguard local culture. Pilgrims visit the tomb of Eyang Mahmud, in order to get blessing and sacred water. Through a variety of rituals performed in front of his grave, people ask Eyang Mahmud's spirit to help them solve their problems.

Islamic religion dominates the village. But there are also indigenous beliefs in the magical power of the river. According to some interviewees, praying at the ancestors' graveyard in order to get blessings from the spirits has become more important than praying in the mosques, even when the mosque has been built nearby.

To get clean water, local people pump up water from wells, from taps connected to tanks and drums. They also use bucket water from wells and boreholes. Some informants buy water from a commercial purifier machine, which costs six thousand rupiah per gallon. They say that water from these machines is only used for drinking and cooking, but for bathing people use ground water or well water.

For their domestic and ritual water use the villagers depend on wells that have been built since the 1980s. In the past, there was a taboo on digging wells due to a local myth which said that there were snakes who would bring bad luck if the taboo was violated. In Islamic thought, pure water is running water, but well water is still. In the myth, local wisdom merges with Islam. In *hadith* pure water may not have odour, taste and colour. But since Citarum River developed all three issues resulting from pollution, local people faced a dilemma. By praying at the graveyard, the believers asked permission to dig wells and they thought that the ancestors allowed them to do so.

It is clearly seen in this case that people harmonized their indigenous (Sundanese), religious (Islamic) and modern-scientific (medical) voices. They made their conflicting perceptions compatible in order to solve their water crisis.

Cigondewah Kaler

In economic terms, the semi-urban site, Cigondewah Kaler, is known for its plastic recycling factories where people work as labourers. Currently, many villagers are plastic collectors and they recycle various kinds of garbage which is a source of income for them. Hence, industrialization which started in 1970s, has opened a new opportunity for villagers and transformed the locals.

In the past, the village had abundant rice-fields, which brought prosperity to the villagers. Because people sold their land to factories, the place has changed from an agricultural area to an industrial one. This has had a huge impact on the sources of income, and on attitudes towards water, plants and soil.

Religiously, traditional religious spirituality at Cigondwah has been trans-formed. The prosperity of the site, caused by fertility of the land and the plastic recycling industry, made it possible for some inhabitants to go on *hajj* to Mecca. The economic transformation from agriculture to industry, however, brought less encounters with the river. Generally it is known that in an agricultural society people are strongly linked with nature, land, plants and water (river), while in an industrial society people are alienated from nature, do not practice their traditions or rituals and honour the land, water and plants less.

Pollution has become an annual problem. There is a serious water scarcity during the dry season. The catchment area has been covered by buildings. New wells have to be dug deeper than the older ones because the ground water has gone down. Consequently, the costs to dig wells have become higher.

During the dry season, when the wells are polluted, local people buy commercial water in gallons at seven thousand rupiah per gallon. This is mainly for drinking and cooking. But, for poor people, buying potable water is a burden. For washing and bathing they filter the water from the wells using a piece of cloth to get it cleaner. During the rainy season, the wells look cleaner and local people use it as clean water, including for drinking. For ablution, they pump up the water from the wells to make it running water, or they pump river water into a pond of two square meters to make it "pure" water in harmony with the *hadith*.

Some activists recognized the water crisis and focused on the change of nature and culture. They were committed to do something about it through art. They set up the Cigondewah Cultural Centre which also functions as a public space, a football field and as a place for meetings. But it is also as a place to practice and show art. They succeeded in reviving the culture and advocating for a strong connection between art, morality and Islamic expression (Supangat, 2008, p. 12). The aim of the project is to revive local culture which is used to promote the sustainability of nature, trees, land, water and the traditions of people (Sanjaya, 2011, p. 240).

Thus, in the semi-urban site we observe the same solutions to the water problem that we observed in the rural site, but also a problem-solving strategy through social activism and art. In this art work the activists harmonize local mysticism, Islamic thought and modern science.

Comparative analysis

In both case studies we found that interviewees made a distinction between the words "clean" and "pure" water. For example, river water that is "unclean" because it contains metals, chemicals and antibiotics, can nevertheless be perceived of as "pure" because it meets the criteria of Islamic juris-prudence. It is running water and it does not smell, has no colour and does not taste bad. Thus from a medical perspective the water is not potable, but from a religious perspective it can be used for ablution.

In both case studies we found that the religious voice was dominant and surpressed other (e.g. medical, technical) voices. Interviewees say that there is "no connection" or "no relation" between religion and water management, defining religion in terms of official religion or religious institutions. Most interviewees, in both the rural and the urban site, say that this is the way it should be. Religious communities cater to the spiritual needs of the people, and water management is a government concern. Only artists and activists at the urban site connected religion and environment conceptually. Thus, at the level of perception we noted a secularisation, this is a tendency to separate the sacred and the profane domain, "the rule of God" and "the rule of man".

However, at the level of practice, most people did use religious beliefs and rituals, or "lived religion". In Mahmud, people asked permission from their ancestors to break a local myth that prohibited them to dig wells. According to that myth, wells had snakes that would bring bad luck. From the

perspective of Islamic thought well water is still, thus not pure, and suitable for ablution. So, the villagers solved their shortage of useable water by performing a religious ritual. Until today, many visitors come to ask for blessings in front of the old graveyard. This practice is watched over by the Eyang Mahmud Foundation.

Picture: The Sacred Tomb at Eyang Pesantren, Cigondewah

In the urban case study, religious rituals from various traditions were used and freely mixed by some activists and artists to raise awareness and stimulate action. Before going to demonstrate against the government, demanding to clean up the river, a local artist of the Cigondewah Cultural Centre washed the feet of his mother to ask her blessing, and drank the water. He implicitly referred to the washing of feet in the gospel of John (13:2-5). The waste water of washing his mother's feet was considered to be dirty water, but he used it as water that brings blessing.

Picture: Artist washing the feet of his mother

5.   Conclusions and discussion

In answering the question of what scholars of religion can contribute to water management we can conclude at least two things. If water managers want to include religious values in integrated water management, they must be aware of (1) the variety within religious traditions, and (2) the religious activity outside the religious institutions. As we have shown above, there are quite some differences between rural and semi-urban situations, as well as situations where puritan or moderate religion dominates. Thus, essentialist or generalizing *fatwas* from religious authorities won't have the desired effects. Moreover, as the Mahmud graveyard and the Cigondwah Cultural Centre show, scholars of religion must take into account that lived religion differs from the religion that is learned in mosques and religious schools.

A lesson that can be learned from our research is that water engineers must take into account the ambivalence of religion. Religions are part of the problem and part of the solution. Policymakers cannot be naïve in promoting religious values in water and waste management but must be critical towards religion. Although there were numerous expressions that showed the intrinsic relationship between (absence of) pollution and purification, such as "cleanliness is part of faith" and "religion is built on cleanliness", an unexpected outcome of our research is that at a conceptual level interviewees separated "spiritual needs" and "government concern". Although we expected to find a comprehensive world view, we found a compartmentalisation of the perceptions of purification in Islamic though and pollution of Citarum River.

An explanation for this could be that we looked at the tension between purification and pollution from the perspective of lived religion, thus a lay perspective. Maybe our interviewees felt that it was not up to them to make statements about religion, and left these to clerics who are more knowledgeable about religious issues.

So far there have been numerous case studies on the relationship between religious values and environmental concern in Indonesia, for example on environment education in Islamic boarding schools (Fahrurrazi, 2019; Gade, 2012) and garbage donation (*sadakah sampah*) in faith-based organisations such as Nadhlatul Ulama and Muhammadiyah (Aoki, 2016, p. 77–81). In order to get more insight into the huge variety of religious values outside the religious institutions we propose to do a large-scale survey on the correlation between religious values and human-nature relationships, taking more variables, such as gender, level of education, income, profession and religion into account.

In the context of developing sustainable river basin management, Radboud University has developed the Humans and Nature (HaN) scale, based on philosophical visions of nature and operationalized in an instrument for empirical investigation (van den Born, 2007). This scale has been used in researches in The Netherlands, Germany, France (de Groot, 2010, pp. 106–122), Canada (de Groot, 2010, pp. 30–48) and Vietnam (Duong & van den Born, 2019), but not yet in Indonesia. The original HaN scale does not take religious items into account. Being developed in a country where religious affiliation is relatively low, it would not have made sense to study how people's religious views influence their views on human-nature interaction.

Thus, the HaN scale tends to elicit rather universal responses in people. In the study in Vietnam (Duong & van den Born, 2019), where Buddhism is the official religion, the human being as steward of nature came out as a mainstream idea. But stewardship is an idea that requires a belief in creator God that is represented much more in Christianity and Islam. The study in Canada (de Groot, 2010, pp. 30–48) is the only example where religious influence was found using the HaN scale. But, in this study qualitative interviews were conducted and leaders of religious communities were selected as respondents. Thus, they more or less reproduced the key tenets of their beliefs.

We recommend the use of an adapted version of the HaN scale in a country-wide research project in Indonesia, adding particular religious items to the universal human ones. It would be good to take the variety of belief systems in Indonesia into account, consisting of monotheistic (Muslim, Catholic, Protestant) and cosmic (Hindu, Buddhist, Confucian, Indigenous) world views, being open to multiple belonging (for example, mixing Islam and Hinduism with Indigenous beliefs). It would be interesting to see if religious affiliation makes a difference in views of human-nature relationships.

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CHAPTER 9
RELIGION AND ECOLOGY IN INDONESIA AFTER COVID-19

Michael S Northcott

Abstract

Indonesian nature conservation began as a religiously influenced cultural movement among Dutch colonists and European hunters in the nineteenth century, drawing on Calvinist related nature romanticism. Its continuation in the post-colonial era as a national government project underwrote the popular perception of nature conservation as an elite project that does not benefit local people in accessing or benefiting from their local environments. The Covid-19 crisis exposed links between environmental health and public health. It also exposed the dangers of modern encroachments onto ecosystems in bringing urban populations into contact with wild animals and their viruses. These lands are traditionally occupied by indigenous peoples whose ancestral religions, and land rights, are not acknowledged in Indonesian law, although indigenous religions and cultures have a better record than modern industrial societies in managing nonhuman-human relationships in ways that neither create pandemics nor ecological destruction. The crisis also exposed the central role of environmental pollution in human health particularly in Indonesian cities, and indicated that traditional religious practices and rules regarding human-nonhuman relationships may have value if repurposed in relation to restraining the sources of modern pollution, and in repairing the range of human-nonhuman relations implicated in the environmental as well as public health crisis in Indonesia. In conclusion it is suggested that greater attention should be given to the environmental and health impacts on ecosystems *and* people, including indigenous people, in the design of development and conservation projects, and that this has the potential to increase both ecological *and* human benefits from economic development going forwards.

Keywords: Conservation, Covid-19, Environmental Health, Environmental Justice, Indigenous Religions, Pollution, World Religions

The Origins and Development of Indonesian Environmentalism

Environmental concern in Indonesia originated in the efforts of colonial foresters and hunters to protect 'wild' and species-rich habitats, particularly mountainous and peninsula mixed tropical forest in Java, from degradation by peasant agriculture. This led to the setting up of the Indonesian Forest Service in 1855 and eventually to a government Ordinance protecting mountainous mixed (i.e. non-Jati) forests in Java in 1884 (Boomgaard, 1999). The first Indonesian 'nature reserve', on the Priangan peninsula of West Java, was originally leased in 1899 as a game reserve by European hunters because it contained a significant population of banteng, and is now known as the Ujung Kulong National Park where a large mammal was photographed in 2017 which some believe to be the last tiger in Java (Boomgaard, 1999, p. 261; Emont, 2017).

The colonial origins of nature conservation in Indonesia reflect its origins in the West where it was also an elite movement, led principally by romantic era artists and intellectuals such as John Ruskin, William Wordsworth, and Samuel Coleridge who is often credited with pioneering recreational mountain climbing, and was the first to coin the word 'mountaineering' (Bainbridge, 2012, p. 115). Ruskin, Wordsworth and Thomas Carlisle, together with the Anglican clergyman Hardwicke Rawnsley set up the first environmental protest organisation – the Thirlemere Defence Association – to stop the flooding of a valley in the Lake District by the Manchester Water Corporation (Ritvo, 2009). Though unsuccessful, they went on to campaign to protect what is now known as the English Lake District from further industrial encroachment and for preservation for recreational hiking and climbing (Northcott, 2021).

Romantic-era campaigns to protect mountainous areas from industrial expropriation and degradation reflected a new Protestant, and especially Calvinist, regard for 'wild' nature as more redolent of the presence and purposes of the divine Creator, since unmodified by 'fallen' or sinful humans. This new cultural imaginary of wilderness and the 'sublime' also drew on new scholarly and romantic interest in the nature poetry and symbolism of the Hebrew Bible (Berry, 2015; Northcott, 2018b; Stoll, 1997). It is reasonable to infer that Dutch-era colonists, raised principally in the Calvinist tradition, were influenced by this same religio-cultural imaginary when they established some of the first protected areas in European colonial history in the Dutch East Indies in the nineteenth century.

The origin of nature conservation in the colonial era meant that it was perceived in the post-colonial era as a form of what Agrawal (2005) calls 'environmentality', by which he means the way State, economic and conservation organisations use nature conservation to expropriate agency over the nonhuman environment from local human communities. Hence while forest reserves were expanded by the post-colonial government of Sukarno, by the end of the Suharto era there was growing regional suspicion of the Indonesian State's protection of forest and other wild areas which was seen as not reflecting the interests of local people (Jepson & Whittaker, 2002). Post-Suharto era decentralisation of forest protection and regulation led to increased deforestation in many parts of Indonesia since 1998 which in turn provoked a second wave of environmental concern in Indonesia among educated urban populations and the proliferation of new environmental NGOs (Hapsari, 2016; Nawiyanto, 2015; Nilan & Wibawanto, 2015). Cultural diffusion of the movement has been particularly influential among Indonesian university middle class youths who have adopted the characteristic rituals of forest and mountain hiking, snorkelling and scuba diving of European and North American 'nature religion'.[1]

In the last decade Indonesian environmentalism has also taken up climate change mitigation, with a particular focus on the Indonesian's State's heavy reliance on fossil fuel extraction for electricity generation and vehicular transport, and related fossil fuel subsidies. These two concerns have ambiguously merged through the extensive conversion of tropical rainforests to oil palm plantations, much of the product of which is converted into 'biofuels' for local and international vehicular fuels markets, though their claimed lower carbon footprint is contradicted by scientific studies.[2] Campaigns against forest conversion to oil palm have added a third focus in Indonesian environmentalism concerning environmental and public health since human health in cities and towns in Sumatra, West Java and Kalimantan is deleteriously affected by noxious haze from forest fires in Sumatra and Kalimantan set to clear forests for oil palm plantations (Aditama, 2000).

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[1] For an ethnographic description of this new nature movement among students in Yogyakarta see Tsing (2005).

[2] For a review of the scientific evidence on the carbon footprint of biofuels from palm oil see Northcott (2019).

Environmental Health and Environmental Justice

The trajectory of environmentalism in Indonesia, from colonially originated protection of 'wild' creatures and habitats to post-colonial campaigns against air pollution and protection of human health, reflects the history of modern environmental concern in the West. When John Ruskin (1884) wrote an influential essay protesting industrial air pollution in Victorian Manchester his main concern was its aesthetic impacts on the weather in the Lake District and on painterly sunsets, not its terrible toll on the health of workers in coal-fouled industrial cities. But when Rachel Carson wrote *Silent Spring* in 1962 (Carson 1962), the movement it generated was in the first instance provoked by her extensive documentation of human cancers caused by pesticides, and their residues in food and water, and hence the name of the United States' agency established by Richard Nixon in 1970 was the *Environmental* Protection Agency not the 'nature' protection agency. The EPA was required at its origins to control and regulate pollution of the human environment primarily because of the evidence assembled by Carson about the rise in human cancers and related hormonal and nervous disorders from chemical modification of organic life (Davis, 2014). As noted in a retrospective commentary*, Silent Spring* 'began to shift public discourse about the environment, progress and exactly what means are justified in making human life better' (Dunn, 2012).

The central role of human health concerns in 'second wave' environmentalism, and in motivating pro-environmental behaviours, is less well understood than it should be. Research that I conducted on the motivations of religious environmentalists in Scotland indicates they are principally motivated by concern for human health and wellbeing, including of future human generations, rather than concern for nonhuman species or habitats. In particular Scottish subjects were concerned about threats to health and mortality from extreme weather events such as droughts and floods in poor developing countries such as Malawi and Bangladesh (Northcott, 2018a). They also expressed concern about the future impacts of climate change in Scotland on their grandchildren. These findings underwrite other empirical evidence that communications about environmental protection which highlight harms from industrial development to innocent human persons, and those lacking the resources to defend themselves from environmental harms, have stronger motivational force than those which focus on threatened species such as wild pandas or orangutan (Stern et al., 1985). Analogously the idea of 'environmental justice' arose from a pioneering study

which showed that those most at risk of environmental and toxicological harms from industrial development and waste in the United States were innocent third parties, and particularly low income minorities and people of colour. The black-led United Church of Christ sponsored a US-wide investigation into the location of toxic industrial waste sites which first revealed their proximity to the neighbourhoods of poor people and especially blacks, Hispanics and Native Americans (Commission for Racial Justice, 1987). Subsequent scientific research confirmed this early finding and led to the first scholarly theorisation of the idea of 'environmental justice' and the formation of the environmental justice movement (Bullard, 2000).

In Indonesia environmental justice concerns have primarily focused on the growing impacts on forest-dwelling indigenous peoples and peasant farmers of industrial development and extraction projects, such as mines, oil palm plantations, paper pulp mills and waste dumps in forests and traditional farming areas, and related land rights concerns (McCarthy & Robinson, 2016). Indigenous and poor rural communities that attempt to resist projects that evict them, or degrade their land, are often portrayed as standing in the way of the necessary 'progress' of industrial development and the modernisation and wellbeing of the nation of Indonesia, and this representation contrasts with the more favourable media representation of urban middle class nature protection movements (Lynch & Harwell, 2002).

Environmental Exclusion and the Non-Recognition of Indigenous Religions in Indonesia

Environmental degradation and theft of ancestral homes, lands and livelihoods is the central concern of what Juan Martinez-Alier (2003) calls the 'environmentalism of the poor' who argues that it is the characteristic form of environmental protest of communities of indigenous and poor people and that it is historically rooted in colonial land expropriation. Land expropriation by corporate and government agencies remains the principal cause of civil conflict in Indonesia, and of environmental exclusion and internal dis-placement (Bakker & Moniaga, 2010). In such conflicts 'environmentality' plays a prominent role since national or regional governments license and benefit from development activities on lands over which they claim 'environ-mental' guardianship, and as legal owner in the case of forest reserves, while refusing to honour ancestral land claims or commons governance institutions of peasants and of indigenous peoples (Agrawal, 2005).

For peasant farmers and smallholders in Java, Sumatra, Sulawesi, Sumbawa and Kalimantan, State appropriation of forests and high land for 'conservation' is a site of considerable struggle. The Indonesian State, particularly from the Suharto-era on, used its vast land holdings to promote crony and foreign owned agro-industrial and mining projects which offer few benefits and many environmental downsides to local people. They provide some low wage employment, but they are essentially wealth expropriation by the Jakarta government and Jakarta-based or foreign-owned corporations (Peluso, 1992; Robison, 1986). Hence as Peluso, Afiff, and Rachman (2008) argue, agrarian land rights campaigns have become a significant feature of environmental activism in Indonesia since Reformasi in 1998, and especially in Java, where agrarian campaigners have worked with Provincial governors and sympathetic Members of Parliament to have some national forest land re-gazetted, resulting in a form of 'repeasantisation'.

Religious traditions are also significantly at issue in the conflict between the modern secular ideology of progress as industrial development, as advanced by the Javanese- and Muslim-centric Indonesian State, in partnership with large domestic and foreign economic corporations, and indigenous as well as peasant land claims and uses. The Indonesian State at its origins did not formally recognise the religious traditions and cultural practices of indigenous people as legitimate religions in the invented tradition of 'Pancasila' (or five principles). The formulation of Pancasila as proposed by Sukarno (SarDesai, 2018) gave rise to considerable argument, particularly over whether it should include Sari'ah, law.[3] In a compromise between political Islamists and non-Muslim nationalists, Pancasila was ultimately formulated as '*Yang Maha essa*' or belief in One God' which became the first principle of Indonesian nationalism (Acac, 2015). While this Abrahamic oriented formulation (neither Hindus nor Buddhists are monotheists) forged a peace between threatened separatist movements in Islamist and Christian dominated regions and Islamic nationalists it had the effect of excluding indigenous peoples and their religious traditions from recognition by the Indonesian post-colonial State.

The exclusion of indigenous peoples from the religio-cultural conception of Indonesian national identity is part of a longer colonial history of exclusion

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[3] Sukarno's speech, titled '*Lahirnya Pancasila*' (The birth of Pancasila), was given to the Investigating Committee for Preparatory Work for Independence on 1 June 1945, and is reprinted in SarDesai (2018). On modern nationalist inventions of tradition see the collected essays in Hobsbawm and Ranger (1983).

which has continued in the post-colonial State both with respect to land expropriation and access of indigenous peoples to public resources and services. This is all the more hindered by the fact that to obtain formal documents such as birth certificates or title deeds, or a digital photographic Identity Card needed to obtain employment, indigenous people had to claim allegiance to the officially recognised religious traditions until a Constitutional Court decision overturned this in 2017 (Syaputra & Nasution, 2020). If they would not disown their own culture on citizen identity applications, and other kinds of governmental paperwork, they could not obtain employment or legal recognition of any kind.[4] The formal position of the Indonesian State until 2017 was that while the State acknowledged the existence of around one million *masyarakat terasing* or 'isolated peoples' it refused that they were 'orang asli' or 'indigenous persons', and instead sought to incorporate them into formal Indonesian citizenship through re-education, resettlement and other programs (Li, 2000).

This is analogous to governmental treatment of forest or highland dwelling groups in other post-colonial states, and indeed neighbouring Malaysia, while it acknowledges the existence of 'orang asli', has a government department that runs re-education and resettlement programs. Such programs and strategies, while they are said to offer indigenous peoples economic and other opportunities, enable postcolonial States to license the expropriation of the lands and resources of indigenous peoples without legal challenge in a pattern analogous to that of the Dutch colonial government (Nicholson, 2008). In Indonesia, non-recognition of indigenous peoples led to activist struggles, and appeals to the Ombudsman, over many years which culminated in a Constitutional Court case which ruled as unconstitutional the exclusion of indigenous religions from government regulations in 2017. The Ministry of Home Affairs subsequently indicated an intention to permit 'agama indigenous' to be entered into documents such as birth certificates, and civil registration and land ownership deeds though this has not to date been implemented.[5] An equally significant Constitutional Court case required the Jakarta and provincial governments to re-gazette state forest areas as indigenously owned forests in 2013. However by 2019 only 164 square kilometres, out of 19,000 square kilometres had been regazetted (Gokkon, 2019; Minority Rights Group International, 2018).

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[4] See recorded verbatim testimony to this effect by one indigenous subject in Leandha (2017).
[5] Though published before the Court Decision Maarif (2017) provides valuable background to this issue.

Despite legal efforts to improve their standing, indigenous groups, who number 40 million Indonesians, remain the most at risk population from deleterious human health impacts of environmental degradation and exclusion because their lands are both more easily expropriated by governmental and commercial interests and because, despite recent Constitutional Court decisions the Jakarta government continues to resist implementing Court-mandated changes in land rights, identity, and access to full citizenship for indigenous communities and individuals. And this is despite their increasingly well documented success in conserving the biodiversity and ecosystem health and resilience of their habitats over time.

Indigenous and 'World' Religions and Environmental Health

At the heart of environmental injustice in Indonesia is the division, also promulgated by the scientific study of religion, and Indonesian law, between what are often called 'world' religions and indigenous religions. The ascription 'world religion' indicates that in contrast to indigenous religions these traditions have a history of expansion from the habitats and regions where they originated into other lands and regions to the point that they became 'global' religions. In so doing, global religions frequently displace local or 'indigenous' religions and this displacement often takes the form of cultural disparagement of indigenous practices as animistic, barbaric, magical, savage, unhygienic and so on, and such disparagement is evident in dominant attitudes to indigenous peoples and religious practices in Indonesia. This process of displacement also involves the dismissal of the implicit knowledge of indigenous peoples, including knowledge of the other beings with which indigenous peoples share their environment. But in recent decades there is growing recognition both among anthropologists and scientists, as well as among indigenous peoples themselves, that despite lack of legal recognition, their ancestral 'guardianship' of forests and other habitats demonstrate a better historic record of conservation of the integrity of ecosystems, and the diversity of species within them, than either pre- or post-colonial nation-states.

During a British Royal Geographical Society expedition to the then still unmapped region of Mulu in Sarawak, Borneo, in 1977, the expedition leader Robin Hanbury-Tenison was befriended by a Penan man – Nyapun – who introduced him to Penan forest lore and knowledge, and took him to places he would never have reached alone. Writing up his experiences later, Hanbury-

Tenison (2017) observes that the guardianship of indigenous peoples of the forests and mountains he visited are 'the key reason there is so much bio-diversity' and that this is what

> makes the forests so valuable and worth turning into a park is that there have been people looking after it in a symbiotic relationship for ages. And what is more, as we were increasingly to learn on our expedition, their knowledge and understanding of it far exceeded our own superficial scientific analysis (Hanbury-Tenison 2017, p. 64).

The role of customary and religious practices in such guardianship has been the subject of investigation by a number of anthropologists in recent years and such investigations have begun to challenge the Durkheimian account of the exclusively human, or social, functions of ritual and religion. Roy Rappaport undertook a pioneering piece of research on the island of New Guinea, half of which island constitutes the Indonesian province of West Papua, in which he found that the ceremonial and ritual practices of the Maring-speaking people he studied had significant ecosystemic functions. He framed his findings with an observation on the received anthropological opinion concerning the function of religion according to which rituals are not directed at influencing the external world but instead have the functions of upholding human social organization and resolving threats to social order, either internal or external.

Against this view, which was first clearly articulated by Emile Durkheim and adopted by most Western anthropologists, Rappaport reported a number of ways in which the rituals and ceremonial calendar of Maring-speaking peoples in the interior of New Guinea helped 'to maintain the biotic communities existing within their territories' while also fostering equitable distribution of lands between groups in the region, and so reducing inter-tribal conflicts.

While Rappaport (1967b) accepts his subjects own purported understanding of the purposes of their religious rituals as designed 'to rearrange their relationships with the supernatural world' (p. 22), he nonetheless studied the *empirical* impacts of their religious practices and found that, although the Tsembaga group he studied for 14 months had a principally vegetarian diet, they also kept a few hundred pigs and that these pigs were used as cultivators in their gardening or *swidden* plots – clearings in the forest for food growing which are planted once after which they are replanted with trees. He noted that pigs were only slaughtered as sacrifices in ritual ceremonies and that the frequency and timing of these kept the number of pigs within Rappaport's scientific estimations of the carrying capacities, for pigs and humans, of the

forest area they occupied. He also noted that practices concerning pig meat ingestion and sacrifice, and their use in the payment of inter-tribal debts from sometimes violent disputes, played a significant role in regulating and so limiting conflict with other tribal groups. Rappaport (1967b) summarised his findings as follows:

> The operation of ritual among the Tsembaga and other Maring helps to maintain an undegraded environment, limits fighting to frequencies which do not endanger the existence of the regional population, adjusts man-land ratios, facilitates trade, distributes local surpluses of pig throughout the regional population in the form of pork, and assures people of high quality protein when they are most in need of it. (pp. 28–29)

Rappaport went on to develop these field observations into a powerful theory of the ecological functions and meanings of religion and he was a highly significant innovator in the now more established interdisciplinary field of ecology and religion (Rappaport, 1967a, 1979, 1999).

Rappaport was not alone in challenging the mainstream conception of the function of religions in the 1960s as purely societal – i.e. as only influencing individual and social beliefs and behaviours - and non-empirical in their effects on the external world. Mary Douglas (1966) constructed a similar argument concerning the likely human health functions of dietary rules in ancient Israel as recorded in the five books of Mosaic Law, or *Torah,* also known as the first five books of the Old Testament in the Christian Bible. The particular ritual regulations that Douglas investigated in *Torah* concerned dietary rules, some of which persist to this day in Judaism and were also later taken up in Islam. The particular rule Douglas honed in on concerned the ancient Israelite proscription on pig-eating which Douglas (1966) argues 'may well be that the ancient tradition of the Israelites included the knowledge that pigs are dangerous food for humans' (p. 32). Douglas notes that any potential empirical effect of dietary laws, such as the proscription on eating pig, was long dismissed in the dominant tradition of Old Testament scholarship, and in religious studies more generally. This dismissal goes back to W. Robertson Smith's magisterial work *The Religion of the Semites*, published in 1894, which was a big influence on Durkheim and other nineteenth century religion scholars. Smith considered concepts and practices relating to dietary and human-species taboos as belonging in the realm of magic, and so irrelevant to what he regarded as the core *ethical* function of religion. Hence he never

considered the potential ecosystem or human health value of such rules and nor did those who came after him (Douglas, 1966, p. 21).[6]

Ecology, Religion, and the Covid-19 Crisis

The Covid-19 crisis in 2020 heightened the significance of environmental health, including its relationship to religion, and to other ritual behaviours – such as smoking and rubbish burning - more broadly, in Indonesia. The worst effects of the pandemic were experienced in Jakarta, a city which has the highest atmospheric pollution of any city in Southeast Asia, and damage to the respiratory health of Jakartan residents from indoor and outdoor pollution is well evidenced (Gupta et al., 2020; Pramitha & Haryantoa, 2019). Given that Covid-19 manifested principally as a respiratory disease, the concentration of excess mortality in the Jakarta area and to a lesser extent in other Javanese cities, indicates that air pollution played a significant role in the severity of the pandemic l, as in other heavily polluted urban areas in Asia and beyond, including the heavily polluted city of Wuhan, and also North Italy – which is the most polluted urban area in mainland Europe - and the cities of London and New York (Cole et al., 2020; for background see also the highly cited study by Seaton et al., 1995).

Among the first public health responses to the pandemic in Indonesia, as in many other countries, were efforts to stop people gathering for religious rituals and meetings because of claims that such gatherings are responsible for increased infection rates. The evidence base for this claim is however exceptionally weak since impacts of the disease on excess mortality conformed to the normal 'Gompertz' curve of other flu-like respiratory viruses in every domain regardless of whether religious or other meetings were banned. The ban also suggested that religious rituals and communities far from being sources of health – mental, physical and spiritual – as scientific evidence indicates (Matthews et al., 1998), are instead sources of ill health and causes of disease, and continued efforts by governments to control religious gatherings even after excess mortality from Covid-19 had declined, raise strong concerns about religious freedom and for some indicate that public health is being used to supplant traditional religions.

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[6] Douglas refers principally to Robertson Smith (1894).

In this context, pioneering work on the potential environmental and health *benefits* of religious rituals and regulations is of particular significance, including Rappaport's pioneering work in the 1960s on the Tsembaga people on the island of Papua New Guine. In the same decade anthropologist Mary Douglas (1966) investigated and presented evidence that regulations not just limiting but banning pig keeping in ancient Israel, and as later adopted in Islam, likely had environmental and health benefits. The principal reason, as now known to modern science, that pig keeping carries health risks for humans is because pigs are very close to humans genetically, and that pigs act as vectors in the transmission of viruses between other animals – and especially birds – and humans (Ito et al., 1998). The emergence of zoonotic diseases in humans from contact between domesticated and non-domesticated animals is a scientifically well attested phenomenon common to all agricultural and industrial civilisations over many centuries, and many argue it was implicated in the emergence of SARS-Cov-2 in Wuhan in 2019 since SARS is a bat virus.[7] It is reasonable to speculate, as Douglas herself does, that ancient agrarians were the first to become aware of the tendency for human illnesses to develop after human interactions with domesticated animals, and especially pigs and some wild animals, and that it is for this reason that both Judaism and Islam have dietary rules which proscribe the keeping of pigs and the consumption of most non-domesticated or 'wild' animals.

This is an example of what Pierre Bourdieu (1971) calls the 'cultural un-conscious', or implicit or tacit knowledge, and it was therefore never fully articulated in language (on tacit knowledge, see Polanyi, 1966). However it is reflected in the form of a huge number of dietary rules and regulations in ancient Israel strictly governing where and by whom domesticated animals could be slaughtered. The Torah restricted animal slaughter to just one location, namely the Temple in Jerusalem, and to one class of persons, the Levites, who were required to live in a spatially separate settlement from other Israelites. Moreover it was forbidden to eat the blood – wherein the greatest risk of viral contamination resides – and the blood had to be carefully drained and buried in the earth. Through this remarkable range of devices butchers and their families in ancient Israel were in effect quarantined for life, and thereby risks from contamination by the blood, viruses, or other bacteria, including any zoonotic transmission of viruses from butchers to non-butchers

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[7] For a fuller discussion of the origins of SARS-CoV-2 and its ecological and religious implications, see Northcott (2020a).

from slaughtered animals, would have been significantly reduced (Eder, 1996, pp. 58–96).

The prominent role of zoonotic viruses in modern influenza and coronavirus outbreaks is established beyond doubt, but two features of modern industrial agriculture have made the problem much more prone to creating pandemics. The first concerns disturbance and clearance by modern humans of formerly remote tropical and subtropical forests, mountainous areas and caves where bats and other mammals have lived for millennia relatively undisturbed by humans. The second concerns the intensive industrial rearing of domesticated animals. On the first, it is evident that the SARS-Covid-2 virus originated in populations of horseshoe bats in China. The virus has a 96% DNA overlap with a virus which caused the death by pneumonia of three mine workers in 2013 in Yunan Province in China (Boni et al., 2020). The virus was subsequently isolated, studied and genetically modified in virology laboratories in China including at Wuhan, and in the laboratory of the University of North Carolina, Chapel Hill, on which more below.

On the second, intensive animal facilities, or 'factory farms', are a historically recent phenomenon, made possible by modern discoveries of vitamins and antibiotics. The practice of intensively rearing chickens indoors, with the use of vitamin supplements to enable them to survive without sunshine or exercise, began in the United States in the first decades of the twentieth century. Intensive indoor pig rearing facilities followed and it was such a facility which was the origin of the infection which emerged among US troops who were later sent to Europe from an army base in Kansas close to a pig farm where a dangerous influenza virus first infected humans before spreading to the base and thence to Europe, after which it was called the 'Spanish flu' since newspapers in Spain – a neutral country in the First World War – were the only ones to report the outbreak (Barry, 2004).

Intensive animal facilities – or 'factory farms' –for chickens, ducks, turkeys and pigs are now globally widespread. Animals are confined in such close quarters, and in cages which restrict movement that they need to be medicated to survive. The animals are therefore routinely fed antibiotics as prophylactics to control infections which are rife in the overcrowded and insanitary conditions. Antibiotics and growth hormones are also used to promote growth since muscle use is restricted and this slows normal growth (Wegener, 2003). The risk of cross-infection with humans is highest in pig factories because of the close overlap of human and pig DNA. The result is that these farms, and

especially intensive pig facilities of which there are huge numbers in the United States and China, are the principal sites in which novel and dangerous pathogens emerge and are transmitted to humans, such as the H1N1 swine flu virus (Campitelli et al., 1997). In 2009 H1N1 virus did jump into the human population and the World Health Organisation declared a global pandemic and predicted millions of deaths absent a mass vaccination program. Countries such as the US, the UK and Germany spent billions investing in vaccines which turned out to be more dangerous than the disease and the vaccination program had to be stopped (Schonberger et al., 1997). As for the 'pandemic', it was confined to just a few thousand symptomatic people and caused a few hundred deaths globally, though the virus is still evolving in pig factories.

As well as the zoonotic viral genetic 'pools' that are now present in avian and pig factories, these facilities are breeding grounds for dangerous bacteria including salmonella, campylobacters, and for the emergence of new highly toxic bacteria such as E.Coli 0157. Finally the extensive misuse of antibiotics in animal farms, including in mainland China, where even the small number of antibiotics effective against persistent hospital acquired infections are used on animals, carries a further significant risk for human health which is not only the development of anti-biotic resistant bacteria but the possibility that antibiotics as a class of medicines will cease to be effective, so rendering impossible the majority of surgical procedures in modern medicine since most require treatment with antibiotics to prevent post-operative infections and sepsis.

Cheap meat or modern medicine? This is a Hobson's choice but the secular scientific narrative of human dominion and control over other nature and species is centrally implicated in this dilemma since without scientific interventions animal factories, and the low pecuniary cost of industrially produced meat, would not exist (Scully, 2008). With hindsight it is evident that the global crisis occasioned by fear and special measures taken in response to the novel zoonotic coronavirus named SARS-Cov-2, and the disease state 'Covid-19' it promotes, was disproportionate to the risk of death. The virus appeared in November 2019 and by September 2020 just over 1 million, or 0.089%, of the global population of 7.8 billion were said to have died *of* or more often *with* 'Covid-19'. Above 90% of the victims were over 80 with two or three other life-threatening conditions. A review of peer reviewed papers on the mortality rate of the virus concluded in July 2020 that it was equivalent to seasonal influenza at 0.27% (Ioannidis, 2020).

The Chinese government from the outset of its acknowledgement of the emergence of the virus in Wuhan announced new stricter protocols on virology and bioweapons laboratories throughout China. Most Chinese believe the virus came from the bioweapons laboratory in Wuhan which had a long running and well published research program on SARS-Cov viruses. Results of such viral research, including the engineering technique of 'genetic recombination', are regularly published in scientific journals in China, the US, Europe and Japan all of which have laboratories conducting similar genetic engineering of viruses. Because of the dangers to humans of this kind of research, President Obama banned such research in US government laboratories in 2014. However rather than ending the research, the US National Institute of Health, and its Director Dr Fauci, used NiH funds to move the research to the virology lab in Wuhan (Lin, 2020). The jointly funded 'gain of function research' led to the engineering of a version of SARS-CoV capable of infecting mammals, and in mice the novel virus used the 'Ace2 receptor' pathway also noted in the SARS-CoV2 virus, and which led to lung and other organ damage in the mice similar to the symptoms reported by human victims of the SARS-CoV2 outbreak in 2020. A 2017 paper explains that 'cell entry studies demonstrated that three newly identified SARS-Covs with different S protein sequences are all able to use human Ace2 as the receptor' (Hu et al., 2017). Subsequent studies of SARS-Cov2 point to its uniquely humanly adapted character, and in particular its capacity to bind to human ACE2 receptors which make it 'a highly adapted human pathogen', and therefore underwrite the likelihood that the virus originated in 'gain of function' research (Piplani et al., 2020; Zhan et al., 2020). The research in Wuhan was jointly funded by Chinese and United States government health agencies, including the US National Institutes of Health. Because of the role of the US in funding the research, the US consulate in Wuhan, after a visit to the laboratory, reported to the US State Department that it had serious concerns about the potential for the poorly staffed laboratory to leak dangerous viral material and set off a pandemic though it appears nothing was done (Rogin, 2020).

Religious Traditions, Pollution and Taboos Governing Human-Nonhuman Relationships

The likely origins of SARS-CoV2 in a Chinese mining project, its subsequent isolation, and 'gain of function' engineering of it, indicates that there is a deep lack of wisdom in the modern belief that humans can commodify, destroy and

re-engineer wild animal habitats, and genes and viruses found there, without risking considerable harms to humans. The source of that lack of wisdom is the modern tradition of Baconian science. It was Francis Bacon who first proposed that the modern scientific method would render humans capable of so dominating and re-engineering life for human purposes as to recreate a scientifically reshaped 'paradise' on earth (see further Merchant, 1981). Scientific discoveries have enabled humans to re-engineer plants, animals and habitats for human purposes and such re-engineering in factory farms is the principal genetic pool of novel and dangerous viruses and bacteria on the planet. But the ideology of science as the 'saviour' of humanity from disease and even death – though of course science cannot in reality 'cure' death – provoked the loss of influence of religious practices proscribing unwise encroachments on the habitats of wild species. Hence even during and after the SARS-CoV-2 'pandemic' over 400 virology labs worldwide were still engineering 'gain of function' into novel viruses with no change in their procedures, and no recognition of the dangers posed to humans in general – and particularly to vulnerable older people with weakened immune systems such as those who died from SARS-CoV-2 – from the escape of such viruses into the humans who perform this science and who may inadvertently act as human hosts for these novel viruses in the world beyond the laboratory (Gaoa et al., 2020).

As the Covid-19 pandemic unfolded across the world, and in Indonesia, most provinces in Indonesia adopted variants of the range of public health strategies adopted first in Italy, which uniquely involved whole nations quarantining the healthy for a disease that only produced excess mortality among elderly people with pre-existing health conditions, and with an Infection Fatality Rate among that cohort equivalent to a bad influenza such as that of 2017-18 (Lourenço et al., 2020). In most developed and developing countries in the Americas and Europe nonetheless measures were adopted which prevented young people receiving education, while also forcing the closure of many businesses and even health clinics including family planning clinics in Indonesia which has produced an unwelcome baby boom among low income households who lack the resources to purchase contraception (Paddock & Sijabat, 2020). So while Indonesia avoided the harsh residential lockdowns adopted by some other Asian countries – including Malaysia and Vietnam – it nonetheless empowered Provinces to impose special measures, including mask wearing in public, while closing many businesses, government offices, religious, cultural and sporting venues in the first weeks of the crisis.

Despite the generalised nature of the response to the perceived public health crisis of Covid-19 there were no media reports of healthcare services being overwhelmed in Indonesia at the outset of the crisis, though there were reports of higher than normal cremations in the Capital Jakarta during April and May (Allard et al., 2020). The Governor of Jakarta made political capital from these and eventually President Joko Widodo (tvOneNews, 2020), having initially indicated the virus was no different to flu, and no reason to harm the economy, declared a national crisis on 28th June 2020.[8] However Covid-19 regulations led to significant deprivation, including hunger, because of business and travel restrictions, school closures and bans on foreign tourists. These led to a significant loss of income for the majority of Indonesians who are dependent on daily cash-based employment. The appropriateness of imposing extreme measures in a number of Provinces in Indonesia on the basis of experience in the Capital is therefore dubious given that the public health measures impacted almost every aspect of human life and wellbeing from birth to death, and especially the livelihoods, or education, of most Indonesians.

If, as already indicated, the concentration of Indonesian excess mortality from Covid-19 in Jakarta was related to air pollution, and given excess mortality estimated at 130,000 from air pollution in Indonesia, which is three times estimated excess mortality from Covid-19 (Cohen et al., 2017), this fore-grounds going forward the role of environmental health, and efforts to promote it, including through religion, in Indonesian public health policy after the pandemic. As with dietary taboos, pollution also has a significant faith dimension given the origins of the concept in the history of religions, and it therefore represents a further significant interface between environmental health concerns and religious traditions. Beliefs in the polluting potential of certain kinds of behaviour among indigenous or 'primitive' peoples were also conventionally dismissed as magical by Western social scientists. But in her influential and revisionist analysis of the concept of pollution Douglas (1966, pp. 1–6) argued that religious concerns with pollution have two traditional purposes: the first is 'to influence one another's behaviour' and the second is to impose some kind of order on human domestic and production environments. Control of dirt, and other potentially 'polluting' elements in human dwellings and habitats more broadly is therefore a central feature of many

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[8] President Widodo's speech was broadcast on TV One under the headline '*Penanganan Covid 19 Tak Ada Perkembangan Signifikan!*' (No significant change in the handling of Covid-19) on June 18, 2020.

religious rituals including those concerning diet as well as dwelling. The main concern these rituals express relates to efforts to reduce potential 'spiritual' harms which the ingress of certain elements into the human environment may invite or permit, and of which the ritual disposal of animal blood is the most prominent in Jewish and Muslim slaughter rules.

Translating traditional religious taboos about 'pollution' into citizen and regulatory action to address environmental pollution in societies undergoing rapid economic development, such as Indonesia, is however by no means a straightforward matter. In Indonesia airborne particulate pollution is primarily from coal-fired electricity generation, waste incineration – mainly from non-formal household rubbish disposal, motorised vehicular pollution and soil dust (Myllyvirta & Chuwah, 2017; Santoso et al., 2008). However the environmentalist focus on threats to wild species and wild habitats has not produced a similar level of international and national concern about the harms visited by Indonesian development on the human population in urban areas as it has on harms arising, for example from oil palm expansion, to orangutan.

It is possible, if more attention is given to the overlap between urban pollution and excess mortality from Covid-19 that the pandemic could result in a shift in direction and policy making concerning environmental protection and health in Indonesia going forward. Evidence from studies of citizen concern about environmental threats elsewhere indicates that when these threats are shown to impact human health and longevity, policies and programs to address them achieve greater public support than when targeted only on nonhuman species and habitats. However awareness of public health issues concerning such matters as particulate pollution and pollutants, including carcinogens, in air, food, soil and water is low in Indonesia and is rarely addressed by Indonesian environmental NGOs or policy makers.

The Covid-19 experience therefore offers the opportunity to refocus environ-mental action, awareness, policy making and regulation on human health and away from the colonial originated strategies of nature protection. But this does not mean that biodiversity and wild places will be more threatened than currently. On the contrary there is evidence from case studies elsewhere that such actions as 'rewilding' animal husbandry and food growing, a renewed focus on environmental justice – and in particular on development threats to indigenous land rights, and the greening cities through tree planting combined with active measures to increase cycling and walking, are all more effective in protecting biodiversity and ecosystem health while also leading to

improvements in human health and wellbeing and environmental inclusion (for a fuller discussion, see Northcott, 2015, 2020b). There is also evidence from the United States originated environmental justice movement, and from efforts to include rather than exclude indigenous peoples in conservation 'peace parks' in Southern Africa, that when religious communities and leaders focus on the unjust and unequal effects of environmental harms from economic development on indigenous, marginalised and poor communities from the perspective of faith-based concern with social justice, that this results in stronger action to restrain environmental exclusion and pollution than campaigns which only focus on harms to wild creatures or habitats (Mohai et al., 2009; on peace parks see Spenceley & Schoon, 2007).

Conclusion

The Covid-19 pandemic exposed the unequal environmental harms visited on Indonesians by modern economic development, including especially from air pollution. But it should also be noted that many of those most badly affected by air pollution live in relatively affluent neighbourhoods in Jakarta and Surabaya, so it was not only poor people in these places who were negatively impacted by worse health outcomes than average from Covid-19. A scientific effort to study in greater depth the coincidence between particulate pollution in Indonesia and excess mortality from Covid-19would therefore seem to be a high public health priority for Indonesia after the pandemic. In this light, the cost-benefit sums which currently favour cheap and plentiful electricity supplies from coal as the principal energy source in Indonesia ought to be revisited, and the full economic case for renewables – and especially solar – should be recalibrated taking into account the health costs of coal not only in cities but in the areas whence it is extracted, as the documentary *Sexy Killers* argued in 2019. Such a study will likely also reveal a correlation between urban air pollution and lack of effective action by central and Provincial governments to properly regulate vehicular emissions, combined with the failure by those same governments to prevent the widespread burning of domestic and business waste.

As well as being the most heavily polluted region of Indonesia, and the worst affected area by Covid-19, Jakarta is the principal site currently of the offices of environmental campaigning organisations, and of the government servants responsible for environmental regulation. It is also the locus of the headquarters of a significant number of national religious organisations. As

already observed, pollution is an ancient concern of indigenous and world religious traditions going back thousands of years. However modern forms of pollution – such as from coal burning, poorly regulated vehicles, and plastic waste burning – do not correlate to the cultural forms in which the dangers of pollution, and risks from waste disposal, were resolved by religious traditions in the past. But religion remains a huge source of 'social capital' in Indonesia and it is reasonable to argue that if environmental health is to become a matter of greater public concern subsequent to the Covid-19 pandemic, it is more likely to produce behavioural and regulatory changes which clean up the air and the water if it is connected with religious communities and religious teachings, as I argue more fully elsewhere in an empirical study of a waste project in Ubud, Bali (Northcott, 2020c).

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LIST OF AUTHORS

Almujaddidy, Ali Ilham,
> Annuqayah Institute of Islamic Studies (INSTIKA), Sumenep Madura, Indonesia.

Bagir, Zainal Abidin,
> Graduate School, Universitas Gadjah Mada; Indonesian Consortium for Religious Studies (ICRS), Yogyakarta, Indonesia; research fellow at Radboud University, The Netherlands.

Barus, Ribka Ninaris,
> Independent researcher; graduated from Center for Religious and Cross-cultural Studies (CRCS), Graduate School, Universitas Gadjah Mada, Yogyakarta, Indonesia.

Buono, Gideon Hendro,
> Faculty of Theology, Duta Wacana Christian University, Yogyakarta, Indonesia.

Gumelar, Sung Sabda,
> Faculty of Theology, Duta Wacana Christian University, Yogyakarta, Indonesia.

Hapsari, Maharani,
> Department of International Relations, Faculty of Social and Political Science, Universitas Gadjah Mada, Yogyakarta, Indonesia.

Northcott, Michael S.,
> Doctoral Faculty, Indonesian Consortium of Religious Studies, Universitas Gadjah Mada, Yogyakarta, Indonesia; Emeritus Professor, Faculty of Divinity, University of Edinburgh, United Kingdom; Guest Professor, Evangelical Faculty of Theology, Leuven, Belgium.

Saptaningtyas, Haryani,
> Director of Percik The Institute for Social Research, Democracy and Social Justice, Salatiga, Indonesia.

Sihombing, Daud,
Independent/freelance writer; graduated from Center for Religious and Cross-cultural Studies (CRCS), Graduate School, Universitas Gadjah Mada, Yogyakarta, Indonesia.

Singgih, Emanuel Gerrit,
Faculty of Theology, Duta Wacana Christian University, Yogyakarta, Indonesia.

Simbolon, Subandri,
Sekolah Tinggi Agama Katolik Negeri Pontianak (State Catholic College of Pontianak), West Kalimantan, Indonesia.

Sudirman, Bil Clinton,
Faculty of Theology, Duta Wacana Christian University, Yogyakarta, Indonesia.

Tarigan, Jekonia,
PhD student of Inter-religious Studies, Graduate School, Universitas Gadjah Mada, Yogyakarta, Indonesia.

Wijsen, Frans,
Professor of Empirical and Practical Religious Studies, Radboud University, Nijmegen; Director of Netherlands School of Advanced Studies in Theology and Religion; Honorary professor University of Dar es Salaam, Tanzania.

Yudhita, Rena Sesaria,
Faculty of Theology, Duta Wacana Christian University, Yogyakarta, Indonesia.

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Anna M. Gade, Professor of Environmental Studies, University of Wisconsin, Madison, United States.

Zainal Abidin Bagir, Graduate School, Universitas Gadjah Mada; Indonesian Consortium for Religious Studies, Yogyakarta, Indonesia.
Michael S. Northcott is Emeritus Professor, Faculty of Divinity, University of Edinburgh, United Kingdom.
Frans Wijsen, Professor of empirical and practical religious studies, Radboud University, The Netherlands.

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