



Deforestation and Islamic Ethics: A Search for the Eco-Religious Links between Islam and Sustainable Development in Indonesia*



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[Abstract]

Indonesia has undergone the rapid deforestation largely as a result of practical consequences of human overexploitation of the forest. Between 1950 and 2015, around 43% of the forest area in Indonesia had been lost (68.0 million hectares). The process of deforestation has partly been a response to the rapidly intensifying 'global' and 'domestic' economic demands.

Deforestation in Indonesia is also indirectly due to 'materialism-driven' value system and the corresponding weakening of Indonesian ethics. Therefore, given that socio-cultural expressions of modern Indonesian value systems have mostly taken place within a framework of Islam, the aim of the paper is to attempt to find Islamic ethics in general, which can provide the basis of ecological ethics to prevent rapid deforestation in Indonesia.

The paper is composed of the followings. First, following the 'Introduction', it outlines the historical process of deforestation in Indonesia and also its corresponding socio-economic contexts. Then it moves on to talk about

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ecological ethics in general, thereby emphasizing that the phenomenological problem of deforestation needs to be conceived at a philosophical level beyond ecological phenomena. After discussing the ecological ethics, the paper proceeds to examine Islamic ethics as a canonical framework of ecological ethics in Indonesia. In doing so, it attempts to apply the Islamic ethics to the diverse Indonesian society and then considers 'Pancasila' as a potential framework for a pragmatic link between Islam ethics and Indonesian society. Having said that, in conclusion, the paper argues that there is a need for 'concrete' translation of 'Pancasila' into implementation in an Indonesian context, thereby various agents (government, policy-practitioners, concessionaires and also all the Indonesian) may agree in saying 'no' to overexploitation of the forest, to rapid depletion of the forest and to 'unsustainable' development practices.

Keywords: Deforestation, Sustainable Development, Islam, Ecological Ethics, Environmental Ethics, Pancasila, Indonesia

I . Introduction

Indonesia has about 92 million hectares of forest within forestry department boundaries, about 52% of its surface area (FAO 2020). Indonesia has the highest deforestation rates in the world, exceeding even Brazil that has 4 times bigger forest area than Indonesia (Green Facts 2021). For that reason, forests and sustainable development in Indonesia are inevitably intertwined, and the sound management of the forest is a prerequisite of socio-economic development. Indonesia has, however, undergone the rapid depletion of the forest largely as a result of practical consequences of human overexploitation of the forest.

In 1950, nearly 159.0 million hectares (87.0%) of the total land area (182.7 million hectares) was covered in forests. Between 1950 and 2015, around 43% of the forest area in Indonesia had been lost (68.0 million hectares) (Tsuji et al. 2016: 335-347). Particularly, in

2012, the annual rate of deforestation (840,000 hectares) surpassed that of deforestation in Brazil (Vidal 2014). The process of deforestation has partly been a response to the rapidly intensifying ‘global’ and ‘domestic’ economic demand for arable land for agricultural activities, exports crops, teak, timber, and forest-based manufactured exports (Global Forest Watch 2021).

The human overexploitation of the forest is also indirectly due to ‘materialism-driven’ value system and the corresponding weakening of Indonesian ethics, since human behavior is often strongly influenced by religious ethics and value systems as well as economic and political motives. A more holistic approach to deforestation, therefore, is required in terms of religious ethics and value systems which may be the fundamental basis of human behaviors and activities. Therefore, given the fact that Islam has been the major socio-cultural marker of Indonesia in modern history and socio-cultural expressions of modern Indonesian value systems have mostly taken place within a framework of Islam, the aim of the paper is to attempt to find Islamic ethics in general, which can provide the basis of ecological ethics to prevent rapid depletion of the forest in Indonesia. It consequently attempts to apply the Islamic ethics to Indonesian society, keeping in mind the potential role of Pancasila¹ in it.

The paper is composed of the followings. First, following the ‘Introduction’, it outlines the historical process of deforestation in Indonesia and also its corresponding socio-cultural and politico-economic contexts. Then it moves on to talk about ecological ethics in general, thereby emphasizing that the phenomenological problem of deforestation needs to be conceived at a philosophical level beyond ecological phenomena. After discussing the ecological ethics, the paper proceeds to examine

¹ Pancasila has been the official and philosophical ideology of Indonesia since it was first articulated on 1 June 1945. It consists of five foundational principles: ① The Principle of Belief in the One and Only God; ② The Principle of Just and Civilized Humanitarianism; ③ The principle of Indonesian Unity; ④ The Principle of Democracy Guided by Wisdom through Deliberation/Representation; and ⑤ The Principle of Social Justice for the Whole of the Indonesian People (CSIS 1978: 11-14).

Islamic ethics as a canonical framework of ecological ethics in Indonesia. In doing so, it attempts to apply the Islamic ethics to the diverse Indonesian society and then considers Pancasila as a potential pragmatic link between Islam ethics and Indonesian society. Having said that, in conclusion, the paper argues that there is a need for 'concrete' translation of 'Pancasila' into implementation in an Indonesian context, thereby the stakeholders (government, concessionaires and also all the Indonesian) may agree in saying 'no' to overexploitation of the forest, to rapid depletion of the forest and to 'unsustainable' development practices.

II . Deforestation in Indonesia

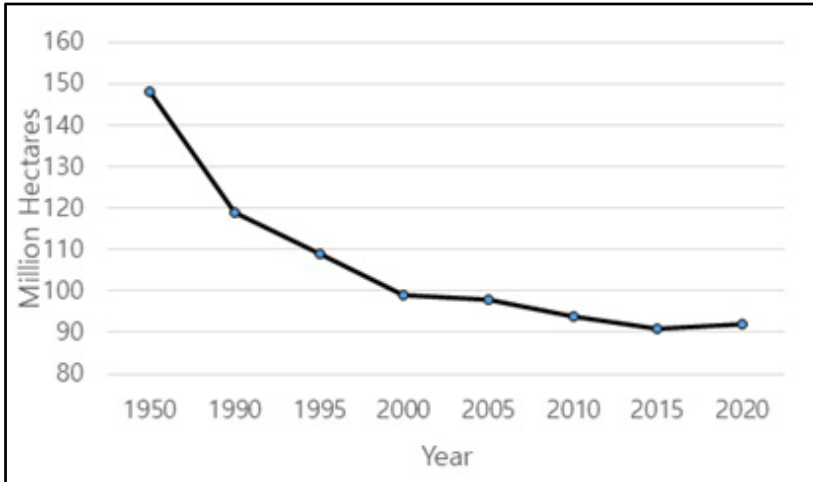
2.1 The State of Deforestation in Indonesia

Before the Agrarian Law of 1870² was introduced by the Dutch, much of Indonesia was still covered in forests, but by the time of the Independence in 1945, large swathes of low-lying forest, especially in Java, had already been cleared. The deforestation was partly a response to the rapidly intensifying colonial demand (Rossabi 1999: 32-33). Deforestation accelerated even faster after the 1960s when the Indonesian government adopted the Foreign Investment Law of 1967³ and the first Five Year Plan (REPELITA I) and the 25-Year Development Plan in 1969.

² The Agrarian Law of 1870 stipulated that all land in Indonesia was considered to be public property and could be leased to non-Indonesians for a period of 75 years. The law opened the door to foreign investment from other countries and possibility the development of free enterprise in tropical products (Kerstiens 1966: 49).

³ The Foreign Investment Law of 1967 was favorable to foreign investment that operated mainly in the natural resources sectors such as petroleum, timber and resource-based manufacturing.

<Figure 1> Forest Area in Indonesia (1950-2020)



Source: Reconstructed from ‘Matthews 2002’ and ‘World Bank 2021b’

As shown in <Figure 1>, prior to 1950, Indonesia had around 148 million hectares of forests, with around 84% of its surface area (Matthews 2002: 8). As a result of rapid deforestation, Indonesia now has around 92 million hectares of forest, about 52% of its surface area (FAO 2020).

It appears that the process of deforestation has slowed down due to Indonesia’s legal and regulatory efforts since 2000 (see Austin et al. 2019: 7-8). For example, in 2002, the Indonesian Ministry of Forestry implemented new legislation that re-centralized authority over forests and attempted to ban district-level local governments from issuing permits for logging and forest conversion on publicly-owned land. Moreover, in 2011, the Indonesian government called for a two-year moratorium on new licenses for logging, oil palm farming, mining etc in its forests (Jang and Bae 2013; Scholte 2019: 19-25). However, Indonesian government still has a number of major task ahead to manage and preserve its forests within forestry department boundaries.

2.2 Causes of Deforestation in Indonesia

Eldeeb et al. (2015) and Baker (2020) consider politico-economic milieu as a major driver of deforestation in Indonesia and argue that deforestation in Indonesia is mainly caused by politico-economic corruption and its unsustainable practices. On the other hand, Adrianto et al. (2019) point out that fire and forest loss in Indonesia are closely related both spatially and temporally. A number of scholars emphasize other agents of deforestation in Indonesia: shifting cultivation (Sunderlin 1997), rapid population growth (Nasendi 2000), forest-based manufacturing industry such as plywood (Makkarennu and Nakayasu 2013), migration/transmigration (Rustiadi and Junaidi 2011: 25-26; Darmawan et al. 2016; Kim 2019: 87-88), and Poverty (Miyamoto 2020).

However, it seems that the potential causes of deforestation in Indonesia are much more complicated than each of the above-mentioned explanations intends to suggest. As a matter of fact, determination of the cause of deforestation poses large conceptual and methodological challenges. The potential agents of deforestation are so various that it is not easy work to put them all in sequence. Moreover, ascertaining causes of deforestation is methodologically difficult because it involves demonstrating linked patterns of cause and effect through time, and there are often few data to prove these linkages. Therefore, there is yet no consensus in the research community on the causes of deforestation in Indonesia. According to some other findings, nevertheless, we can categorize the potential agents of deforestation in Indonesia, more or less, within several encompassing factors (see Austin 2019: 4-5; IBRD 1990: 3; Rossabi 1999: 38-47).

The first major source of deforestation is commodity-driven overexploitation of the forest, especially since the Suharto regime. The rapid depletion of the forest in Indonesia today has been due largely to the 'log export boom' of the 1970s and the persuasion of forest-based manufactured products such as plywood, furniture and paper since the 1980s, both of which have been largely financed by foreign investors.

Since the Suharto regime introduced and implemented a

completely open-door policy, the first Five Year Plan (REPELITA I) and the 25-Year Development Plan in 1969, the last half-century has been a period of extraordinarily rapid change in Indonesia. Its economy dramatically expanded, and real GDP per capita has considerably increased from USD 75 in 1969 to USD 4,136 in 2019 (World Bank 2021a). Despite this process, however, Indonesia has undergone rapid environmental change, especially the rapid depletion of forests since the 1970s, with a parallel steep growth in log export and forest-related manufactured products (for domestic industries and exports) such as plywood, paper and furniture. In particular, Indonesia has, with the support of foreign inputs, succeeded in capturing the world’s forest-related manufactured products market (Jepma 1995: 285; Makkarennu and Nakayasu 2013: 190-191; FAO 2021). As shown in <Table 1>, the biggest forest-related production is logs and the major contributor for forest-related exports is plywood. The high domestic consumption of logs is due to the use by domestic industries, in particular the pulp and paper industry and tertiary industries such as furniture production (Timber Trade Portal 2021).

<Table 1> Forest Production, Trade and Consumption in Indonesia (2018)

	Production (1,000 m ³)	Imports (1,000 m ³)	Exports (1,000 m ³)	Domestic Consumption (1,000 m ³)
Logs	73,797	674	28	74,443
Sawn Wood	4,169	19	539	3,649
Veneer	749	2	96	655
Plywood	3,200	1	2,348	852

Source: ITTO (2019)

Although not all forms of log export and forest-related manufacturing industries are negative, deforestation in relation to the two agents seems to be connected with the comparative devaluation of forests which encourages their massive use. As mentioned earlier, Indonesia has achieved steep growth in forest-related manufactured exports and succeeded in capturing the world’s forest-related manufactured products market. Consequently, after the oil boom in the 1970s and the log export ban in 1985,

enforced export substitution proved successful. On the other hand, the forest has been felled by concessionaires under the pretext of economic growth. Prior to 1970, no trend of severe forest loss was apparent. Since the 1970s, export-oriented log production and global demand for forest products has been one of the primary pressures underlying deforestation (Tsujino et al. 2016: 335).

Commercialism-driven massive logging by concessionaires is also another major source of deforestation. As shown in <Table 2>, in 2015, most of Indonesia’s forest (91.15%) was publicly owned by the government and only 1.08% was privately owned (FAO 2020). The privately-owned forest is ‘titled’ forest. A titled forest is a forest located on land on which the land title is registered by private organizations or individuals. The majority of the public forests are owned principally by the government, but normally directly managed by private concessioners (corporations and institutions) based on forest concessions. It means that the management of forest resources in Indonesia is largely in the hands of private concessionaires (Timber Trade Portal 2021).

<Table 2> Forest Ownership in Indonesia (1990-2015)

Categories	Forest Area (1,000 ha)			
	1990	2000	2010	2015
Private Ownership	na	488.20	1,776.00	1,033.40
Public Ownership	103,058.00	86,422.00	82,095.18	86,625.60
Unknown / Other	na	14,369.80	15,788.02	7,368.90
Total	118,545.00	101,280.00	99,659.20	95,027.90

Source: FAO 2020

Forest-related concession per se is not a problem. However, the alarming challenge is the fact that overexploitation of the forest in Indonesia is often caused by politico-economic corruption and its unsustainable practices. It is estimated that corruption in the forestry sector reached over Rp. 273 trillion in 2011 in Indonesia. In corruption-related cases, there are very few incentives for concessionaires to manage their holdings sustainably. Since logged-over areas have

greatly reduced value, many concessionaires do little to protect their holdings from encroachment and fire once they are logged (Eldeeb et al. 2015; Baker 2020).

As mentioned earlier, on 20 May 2011, the Indonesian government called for a two-year moratorium on new licenses for logging, oil palm farming, mining etc in its forests. The moratorium covers 66 millions of primary forests and peatland (a third of the Indonesian land): conservation forest, protection forest, production forest and ever areas allocated for other uses. It was extended every two years until 2019 (Jang and Bae 2013; Scholte 2019: 19-25). On August 2019, the Indonesian government signed the permanent extension of the temporary moratorium on forest-clearing permits for plantation and logging (Jong 2019). As indicated in <Figure 1>, the moratorium and its follow-up amendment seems to curtail rapid deforestation in Indonesia (Scholte 2019). Nevertheless, critics claim that the moratorium itself has not been effective in slowing down the loss of primary forests⁴ and the deforestation rate has actually increased within areas under the moratorium (Jong 2019). Global Forest Watch (2021) estimates that from 2002 to 2019, Indonesia lost 9.48 million hectares of humid primary forest, making up 36% of its total tree loss in the same period. Total area of humid primary forest in Indonesia decreased by 10% in this time period. Therefore, Indonesian government still has a major task to implement an alternative measure to tackle the commercialism-driven massive logging by concessionaires.

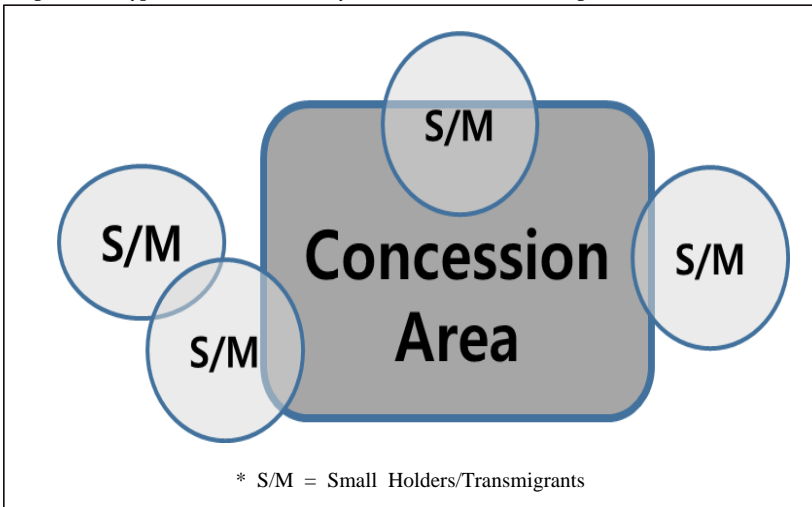
The other significant source is small holder agricultural conversion such as ‘shifting cultivation’, both by local people and immigrants. Global Forest Watch (2021) claims that “the drivers of permanent deforestation are mainly urbanization and commodity-driven deforestation. Shifting agriculture may or may not lead to deforestation, depending upon the impact and permanence of agricultural activities”. However, a number of scholars clearly points out that various forms of ‘unsustainable’ small holder agricultural conversion is a major source of deforestation in Indonesia (Austin

⁴ Primary forest is defined as mature natural humid tropical forest that has not been completely cleared and regrown in recent history (Global Forest Watch 2021).

2019: 5; Rossabi 1999: 46-47; Sunderlin 1997). Moreover, given the transmigrants' agricultural conversion, as 'new' small holders, outside of formal programs, environmental impacts on forests from informal conversion should also be paid attention (Darmawan et al. 2016; Kim 2019: 87-88; Rustiadi and Junaidi 2011: 25-26)

As can be seen in <Figure 2>, 'unsustainable' agricultural conversion by small holders and transmigrants is practiced in a range of types, especially in connection to or outside concession areas. The depletion of forests may also be driven by the networks of small palm oil plantations operated by small holders and transmigrants who produce nearly 40 percent of Indonesia's palm oil stock. Research findings about these conversion by small holders and transmigrants suggests that they operate outside of established concessions in many cases (Jepma 1995: 288; Wijaya 2017).

<Figure 2> Types of Conversion by Small Holders and Migrants



Source: own compilation

Local small holders and transmigrants in reality may have few incentives to preserve the forest. In general, they may face serious constraints in obtaining legal land titles because of the land tenure regulation and shortage of cash. Therefore they may be attracted to forest lands outside of formal programs or outside concession areas

nearby. Moreover, the Forestry Law of 1999 recognizes the right of local people to harvest forest products, except timber. For that reason, the main way local farmers can realize profits is by clearing forest lands (Wijaya et al. 2017).

III. Ecological Ethics and Islam

In previous part, I mentioned several major encompassing factors of deforestation in Indonesia: commodity-driven overexploitation of the forest, commercialism-driven massive logging by concessioners, and 'unsustainable' agricultural conversion by small holders. It is true that not all forms of deforestation are negative and some degree of deforestation is inevitable to satisfy demand for necessary production and other activities related to socio-economic development. In this regard, the Indonesian government has designated production forests as areas appropriate for deforestation and also legal policies to manage and preserve the forests. However, serious socio-economic and environmental degradation is still associated with destructive overexploitation of the forest, commercialism-driven practices by concessioners, and 'unsustainable' agricultural conversion by small holders. Bearing in mind the major encompassing factors of deforestation, I will move on to explore ecological ethics as an alternative framework to address the notable ecological problems.

In a sense, deforestation is primarily a phenomenological problem in the sphere of ecology which is 'the science of the complex interplay of natural organisms and natural systems' However, Schrader-Frechette made a slightly different point when he said that:

If environmental degradation were purely, or even primarily, a problem demanding scientific or technological solutions, then its resolution would probably have been accomplished by now (Quoted in 'International Conference 1994': 7).

Here lies a need to refer to ethics as an alternative framework at a philosophical level beyond ecological phenomena. Especially, at this point, it would be quite useful for understanding deforestation

today in Indonesia to refer to western ecological ethics, since it could provide a functional frame in sketching out ecological issues at a philosophical level.

Ecological problems have been defined as problems arising 'as a practical consequence of man's dealings with nature, where nature is used as the non-human environment of man' (Attfield 1983: 1). Ecological ethics, therefore in general, is premised in general on the conviction that there is something wrong with such attitudes (speciesism and human chauvinism): only humans are bearers of intrinsic value, only humans are worthy of moral consideration, the rest of nature is merely of instrumental value and means in the service of human aids. With regard to such ecological attitudes towards nature, there have been three kinds of cognitive tendency in the Western tradition: 'egocentrism', 'anthropocentrism' and 'despotism'. Firstly, 'egocentrism' may have a stunting effect on the self through failing to see how the self is actually constituted and fulfilled in association with others in the nature. Secondly, 'anthropocentrism' can have a retarding effect on humanity in as much as it denies or loses sight of how humanity is a part of, constituted by, nature (Hayward 1995: 58). Thirdly, 'despotism' is based on a one-sided interpretation of the Biblical belief in man's dominion according to which everything is made for man, nothing else is of any intrinsic value or moral importance, and people may treat nature in any way that they like without inhibition (Attfield 1983: 4).

The matter that confronts us here is how we could indeed tackle deforestation in Indonesia, an Islamic country, by avoiding such attitudes as 'egocentrism', 'anthropocentrism', and 'despotism'. The question leads us to Islamic ethics which could provide obligatory and binding power which could set spontaneous limit to commodity-driven overexploitation of the forest, commercialism-driven massive logging, and 'unsustainable' agricultural conversion, and stimulate the moral behavior of human beings.

Unlike Buddhism as a religion of meditation, Islam is a religion of 'revelation' (Ali 1983: 1092, xxxii 2; Kurdi 1984: 4-5). Islamic philosophy, activities, and ethics are therefore based on the

revelation of Allah, the Qur'an and the other scriptures such as Sunna. In the Muslim view, the Qur'an contains everything (Ahmed 2020: 322-325; Christopher 1972: 28; Von Grunebaum 1961: 81). By entering into every intellectual and emotional aspiration, on whatever level, the Qur'an has provided Muslims with a large area of shared understandings. It also offers a large measure of conceptual and imaginative homogeneity and a universally accepted framework for value judgments (Ebrahimi 2017: 332-333; Von Grunebaum 1961: 90-91). For that reason, in order to obtain insight into Islamic ethics where they are concerned with ecological ethics, it is necessary to focus intimately on the Qur'an, centering ethical framework within itself. Islam thinkers point out that the theological effort to limit the doctrine of determinism so as to provide for moral responsibility belongs to 'the ethics of Islam', and call ethics "Practical Philosophy" (Ahmed 2020: 331-339; Donaldson 1953: ix). The "Practical Philosophy" in relation to ecological ethics, as the Qur'an reveals, can be taken into account in terms of three major ethics (stewardship, balance, and moderation) as alternatives to undesirable attitudes (speciesism and human chauvinism) towards nature mentioned above that regards humans as bearers of intrinsic value and the nature merely as instrument and means for the service of human aids.

Firstly, 'stewardship' is based on the initial assumption that Allah created both men and women (Ali 1983: 24, ii 30) and that He sees and hears and knows everything that they do (Ali 1983: 903-4, xxiv 28). According to the Qur'an, man was made vicegerent on the face of the earth (Ali 1983: 24, ii 30; Shariati 1979: 3). Such is man's natural place in creation, and on this premise, insofar as Islam makes his duties and privileges explicit, it may be regarded as a religion of nature as well as of revelation. Allah did not leave the human race as his vicegerents with guidance and without provision for the regulation of their conduct known as 'Balance', and 'Moderation' (Donaldson 1953: 253). It is revealed throughout the Qur'an that the believer should "fear Allah and know that Allah is with those who fear Him" (Donaldson 1953: 15).

Secondly, the notion of 'balance' in the Qur'an may be regarded as a feature of the Islamic ethos with regard to ecological

ethics. The Qur'an says:

The sun and the moon follow courses computed; And the herbs and trees both bow in adoration. And Firmament has He raised high, and He has set up the balance in order that ye may not transgress balance. So establish weigh with justice and fall not short in the balance (Ali 1983: 1472-3, lv 3-9).

It is in figurative language that the Holy Book of Islam points out that each object of creation is made subject to the laws intrinsic in its nature in order that it might fulfill its function, and that man is to conduct himself in accordance with the laws of his being, and in 'balance' with the laws governing the rest of creation (Donaldson 1953: 254).

Thirdly, the notion of 'moderation' is advised in the command "...do not transgress limits; for God loveth not transgressors" in the Qur'an (Ali 1983: 75, ii 190). According to the Qur'an, "all creatures of Allah are His family and he is the most beloved of Allah who loveth best His creatures" (Donaldson 1953: 255). 'Moderation' has, therefore, to be exercised towards all creatures and interpreted in terms of the good that man can offer not only to his fellow man but to every living object on earth (Donaldson 1953: 265).

A number of scholars show scholarly interest in what is called 'Islamic ecology' or 'Islamic environmental ethics' that is based mainly on the theological principles (stewardship, balance, and moderation) manifested in the Qur'an. Those scholars believe that Islam signals detailed ethical principles on the environment, although the majority of Muslim countries show an apparent indifference to environmental issues and Islamic principles are represented in various forms (Gada 2014; Khalid 2010; Saniotis 2012; Schatzschneider 2013)

IV. Application of Islamic Ecological Ethics in Indonesian Society

The rapid deforestation in Indonesia has been brought about notably through commodity-driven overexploitation of the forest, commercialism-driven massive logging by concessioners, and 'unsustainable' agricultural conversion both by indigenous people and transmigrants. Policy-practitioners, concessionaires, and indigenous people/transmigrants who operate in the fields of the forests, as mentioned in the part II, may have few incentives to manage and preserve the forest which may be the sustainable foundation for the long-term stability of Indonesia. Instead, they give undue value to short-term profits.

Given the facts that Indonesia is the top ten countries with the largest forest area in the world and has the potential to become the largest forest-related manufactured products exporter in the world, there would be no one who doubts that forestry itself is a indispensable net contributor to the economic growth of Indonesia. At the same time, however, taking into account the major sources of deforestation in Indonesia mentioned in the part II, it can be noticed that the intrinsic value of forest has been transformed into commercial exchange values and devalued on the pretext of development. Indeed, the forest has a variety of potential uses. Properly carried out, the conversion of such land may yield not only higher economic returns than standing timber, but gainful employment for rural people who have few alternative sources of income.

Speaking in a philosophical sense, it can be said that the above mentioned profit-oriented attitudes towards the forest seems to be based on 'anthropocentrism', 'egocentrism', and 'despotism' as well as 'materialism'. Furthermore, given the instructions in Islamic ethics, the unsustainable practices and activities of concessionaires, policy-practitioners, and indigenous people/transmigrants seem to be contradictory to the Islamic ethics, which provide the proper limitation to their overexploitation of the forest. Firstly, they appears to be oblivious to the fact that they were made not as a master but as a steward on behalf of Allah who knows everything they do in

this world and that Allah committed nature to the human race with regulations for their conduct such as ‘balance’ and ‘moderation’. Rather, they prioritize extra gain and profit-making from environmentally-destructive practices. Secondly, they apparently lose sight of the fact that Allah commanded that the balance He has set should not be transgressed and that nature therefore has its own intrinsic value to fulfill its function in the creation. Thirdly, they seem to be negligent in the ‘moderation’ which says that they should not exceed the limits Allah set towards all the creatures. As a result, ‘commodity-driven overexploitation of the forest’, ‘commercialism-driven massive logging’, and ‘unsustainable agricultural conversion’ on a practical level can be said to be consequences of ‘revocation of the stewardship’, ‘disruption of the balance’ and ‘secession out of moderation’ at the level of Islamic ethics.

In fact, Islamic approach to environmental concerns among Muslims has been visible since 1999 when the earliest attempt was made by the Institute of Ecology in Bandung. Since 2002, the Islamic Foundation for Ecology and Environmental Sciences have been involved in a series of eco-religious training exercises, based on the Qur’an, for scholars, teachers, NGO activists and community members (McKay et al. 2013: 23). The ecological problems have also raised eco-religious concerns for the environments among major Islamic groups in Indonesia. In particular, the major Islamic organizations such as MUI (Majelis Ulama Indonesia), NU (Nahdlatul Ulama) and Muhammadiyah, have engaged in emergent environmental issues in contemporary Indonesia. In this regard, they have released fatwa (Islamic official opinion) since 2006 when MUI issued the first fatwa on illegal logging and mining activities in Kalimantan, proclaiming them to be haram (Dewayanti and Saat 2020; McKay et al. 2013: 23-24). Indonesian Islamic groups have also attempted to voice Islamic eco-religious concern about the alarming challenges of the environments in various forms: organization of eco-religious institutions (Dewayanti and Saat 2020), establishment of environmental education programs at the local level (Efendi et al. 2017), and combination of Islamic principles with traditional methods of conservation (Mangunjaya and McKay 2012).

There are, however, some practical difficulties involved in applying Islamic ethics directly to Indonesian society. They are concerned with 'contextualization of applicability', which stems mainly from the two features of Indonesia. I will attempt to examine the two features of Indonesia in terms of Hildread Geertz and Clifford Geertz's analysis of Indonesian society (mainly in the island of Java). They may be criticized for the 'out-of-date' and 'rigid' conceptualization of peoples in Indonesia. Nevertheless, it seems that their analytical insight is still valid, at least in understanding 'broad' socio-cultural landscape of Indonesia.

The first problem is derived from 'heterogeneous human landscape', which is reflected by geographical distinctions. In this aspect Hildred Geertz categorized Indonesian societies into three groups: 1) the strong Hindunized inland wet-rice areas; 2) the trade-oriented deeply Islamic coastal peoples whose significant characteristics are ethnic heterogeneity and Islam as the most important unifying element; and 3) the mainly pagan tribal groups of the mountainous interior regions, generally left untouched by either Hinduism or Islam and relatively isolated from the outside world (Darmaputera 1988: 27-28; Geertz 1963: 6-7). The problematic categories here, in terms of 'applicability of Islamic ethics', are the first and last one since they are largely unconcerned with Islamic dogma and doctrine which may be the basis of ethical activities.

Secondly, the next problem is rooted to 'mixed religio-cultural types'. It could be said, as Clifford Geertz proposes, that the types can be categorized into three systems: 1) the 'abangan', 2) the 'santri', and 3) the 'priyayi' (Darmaputera 1988: 76-78; Geertz 1960: 5-7). The 'abangan' represents 'a basic Indonesian syncretism' and commonly consists of the peasant element of the population, 'a balanced integration of animistic, Hinduistic, and Islamic elements' (Geertz 1960: 5). The 'santri' represents the purer Islamic elements as known Islamic orthodox practice and various Islamic organizations (Geertz 1960: 6). The 'priyayi' originally referred to Hindu-Buddhistic cultural elements in the hereditary aristocracy. Today, however, it implies the world view, ethics, social behavior and westernized elements of the elite group (Geertz 1960: 6). The arguable systems here, as regards 'applicability of Islamic ethics', are

the two non-Islamic systems, the 'abangan' and the 'priyayi' since each system has not only different aspects of religious orthodoxy but also a different ethical perspective. In other words, among 'abangan' and 'priyayi', in a sense, we could find universal agreement of Islamic ethics. However, given the dichotomy of religious practices between in 'name' and in 'nature', what is clear here is that Islamic ethics cannot play a full part as an orthodox binding power among them, even among Muslim.

To compensate for the irrelevances of Islamic ethics, there should be a link which allows the Islamic ethics to be put into practice all over Indonesian societies. The link has to be acceptable, if possible, to all Indonesians, and inclusive of all value systems and all beliefs in Indonesia. Here, Pancasila can be considered as a potential framework for the link in view of the fact that Pancasila has important meanings in Indonesia with reference to its three main features: normative integration of socio-cultural diversity, creation of a national identity, and provision of a national ideology. Such implications are symbolized in the five principles of Pancasila as follows: 1) The Principle of Belief in the One and Only God; 2) The Principle of Just and Civilized Humanitarianism; 3) The principle of Indonesian Unity; 4) The Principle of Democracy Guided by Wisdom through Deliberation/Representation; and 5) The Principle of Social Justice for the Whole of the Indonesian People (CSIS 1978: 11-14). Given the fact that it has always been in the Preambles to Indonesian constitutions despite several constitutional changes since 1945, it can be said that the in-born role of Pancasila is to provide meanings of integration, a national identity and a national ideology (Departmen Penegaraan Indonesia 1987: 6). Moreover, although Pancasila in principle remains ambiguous towards Islam on account of this all-inclusive nature, Islamic ethics have some shared analogies with Pancasila with regard to ecological ethics, as Mohammed Nasir said that

[...] none of five principles will be put aside or dropped if we accept Islam as the foundation of the state... All those principles can be found in Islam-not as sterile 'pure concepts,' but as living values with real and clear substance (Quoted in 'Darmaputera 1988': 186).

Firstly, Pancasila, like Islamic ethics, implies the notion of 'balance' which is based on 'stewardship'. Pancasila is geared to the principle of harmony and balance, which are the core concepts of the Indonesian value system. Pancasila therefore provides a philosophical foundation for the maintenance of harmony and balance, between the creation of the One Lord.

That integrated unity, which is Pancasila, provides the Indonesian Nation and its People with a certainty that happiness in life will be achieved when it is based on harmony and balance; whether in the life of an individual, in his relation with society or with nature, in the relations among nations, in the relationship of man with his God, or in the pursuit of material progress or spiritual happiness (CSIS 1978: 11).

Secondly, Pancasila also, as can be found in Qur'an, implies the ethical concept of 'moderation'. It is rooted to the Indonesian cognitive methodology of the 'neither-nor' approach to reality. The original spirit of Pancasila was precisely in the middle, it neither went too far to the right (Liberal Democracy) nor too far to the left (Guided Democracy). In fact, the Suharto regime, a modern interpreter of Pancasila, was committed to correct all the mistakes of the past, that is, both of the so-called 'liberal-democracy' period and of the 'guided-democracy' period (Darmaputera 1988: 160).

Thirdly, Pancasila emphasizes on 'Gotong-royong' as an all-encompassing normative frame, namely mutual cooperation and mutual interest (CSIS 1978: 11). It appears to be based on the notion of 'balance', 'harmony' and 'moderation'. In Pancasila as a whole, there seems to be a point beyond which the individual cannot go without disturbing the 'tata-tentrem' (the others and the tranquility) of the other (Darmaputera 1988: 189). The matter becomes clearer in Sukarno's comment on Pancasila. He said that:

If I compress what was five into three, and what was three into one, then I have a genuine Indonesian term, gotong-royong, mutual cooperation (Quoted in 'Darmaputera 1988: 189').

V. Conclusion: *Need for 'Concrete' Translation of Pancasila*

It has emerged that Pancasila could be a potential framework for the link between Islamic ethics and all Indonesian societies. In this regard, it has also emerged that Pancasila, including the notion of 'balance', 'moderation' and 'gotong-royong', could set normative limitation to commodity-driven overexploitation of the forest, commercialism-driven massive logging by concessioners, and 'unsustainable' agricultural conversion both by indigenous people and transmigrants, by providing an ethical basis over such attitudes as 'egocentrism', 'anthropocentrism' and 'despotism'. It is therefore quite possible that Pancasila at a normative and ethical level could play an important role in an Indonesian context in terms of 'sustainable' development.

However, even though Pancasila can indeed be considered to be a potential framework for the ideal link between Islamic ethics and all Indonesian societies, as Indonesians say, "*Tak ada gading yang tak retak*", which means that there is no ivory which is not cracked, Pancasila also has some limitations and weaknesses. That is to say, one can imagine the phenomenon that government, policy-practitioners, concessionaires and ordinary people would possibly give up the ecological concern with ethical consideration and concentrate instead on an account of what benefits themselves. Moreover, there seems to be a tendency in the process of deforestation that the politico-economic settings, such as 'patron-client' relationships, development policies and foreign capital, have also conditioned forest over-exploitation and environment changes. Thus, unsustainable development practices in Indonesia may be attributed not only to the simple nexus of the environment and exploitation, but also to the complex interplay of politico-economic milieu and policies. However, it seems that the ethical properties of Pancasila has been limited and weak at the practical level in the process of the rapid deforestation in Indonesia. Therefore, Pancasila needs to clearly establish practical guidelines for environmental sustainability. This will require substantial reform of the politico-economic process leading ultimately to proper resource exploitation practices, the sound management of resources

and politico-economic advocacy, and thus sustainable development.

Therefore, what is required here is a ‘concrete’ translation of the principles in Pancasila into implementation in an Indonesian context. Given the fact that the primary interpreter has been the Indonesian government and its policy-practitioners, the role of the Indonesian Government is indispensable in interpreting and implementing the principles in Pancasila in an Indonesian context. Similarly, given the reality that the agents of deforestation and Indonesian government are intertwined with one another, the ‘appropriate’ translation of Pancasila is also required. For that reason, just as Pancasila has points of comparison with Islamic ethics in diverse Indonesian societies, so Indonesian government should pursue a point of ‘gotong-royong’ where government, policy-practitioners, concessionaires and all the Indonesian may agree in saying ‘no’ to overexploitation of the forest, to rapid depletion of the forest and to ‘unsustainable’ development practices. Agreement on points such as these could provide a normative value for the next steps ahead, to see how government should translate Pancasila into its society.

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