

PEATLAND IN KUBU RAYA REGENCY OF WEST KALIMANTAN

(a Contribution to Islamic Ethonomic Theology)¹

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Abstract

In practical terms, peatland has become a problem for the people of Kubu Raya Regency. Its cultivation as either agricultural fields or housing area requires extra work and costs, due to the need to remove the peat beforehand, which is easiest to do by just burning the peat. However, theologically this perspective of peatland as simply a burden is opposed to the message of QS. Ali Imran/3:191, which states that there is no creation of Allah that has no use. This theological standpoint is in agreement with the views of peatland experts. Peatlands not only has economic value as bio-energy materials, but also as a treasure trove of biodiversity, as well as serving as carbon storage and water catchment areas. Thus, this research not only aims to dissect people's "knowledge gaps" and their complex resistance towards scientifically-based land cultivation, but also to contribute towards Islamic Ethonomics (ethical economics) in the context of proportional (correct and just) treatment of peatlands, which are economic treatments that accommodate social and environmental cost analysis based on Islamic theological arguments, as meant by QS. Ali Imran/3: 191.

Keywords: Peatlands, extra work and extra cost, amelioration, QS. Ali Imran: 191

A. Introduction

"Bapak ndak tau gambut, ya? Gambut itu akar-akar kecil seperti serabut kelapa. Ndak mungkin menanam apa pun di atasnya!" (Sir, you don't know anything about peat, do you? They're small roots just like a coconut's hairs. No way anyone can plant anything on it!), explained SI. Furthermore, SI retold his and his fellow villagers' experiences in trying to farm on peatlands. They have to clear bushes, roll them, and then burn them. Then, they have to dig ditches around the plot of land to remove the peat by flowing water. *"Kalau perusahaan, mereka pakai alat berat untuk mendorong dan menumpuk gambut di pinggir,"* (If we're talking about the corporations, they usually use heavy equipments to push and stack the peat at the edge of the plot), said SI. In short, both small traditional farmers and large resourceful corporations view and treat peat the sameway, as merely something to be discarded.

In September 2019, at the peak of the smoke disaster due to wild land and forest fires in Kubu Raya, JS, one of the officials of Koperasi Tani

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explained: “*Kami tidak pakai bakar, kami pakai stacking.*” (We didn’t burn anything, we used the stacking method). In simple terms, stacking is a land clearing method using heavy equipments (excavators and/or bulldozers). Usually, this method begins with a survey team that explored the plot to mark and delineate the land to be opened. Then, stacking boundary poles are set to ensure the felled trees would be stacked neatly. This method is used as a legal alternative to the “burning” method, forbidden by the law. However, in spite of its advantages, the fact doesn’t change that it is meant to remove peat from a soon-to-be-opened plot of land.

When asked about their views concerning this perception of peat as merely something to be discarded, the questioned Islamic scholars, such as UJ, AA and HS, immediately rejected the perception. This response is not surprising, as it represents the Islamic theological standpoint, as written by Abu l-Fida> Isma>’i>l bin ‘Umar bin Kathi>r (1301-1373), citing a statement by Syaikh Sulaiman al-Da>ra>ni, that everything present in this world must contain a blessing and proof of Allah’s greatness.²

The religious scholars’ rejection above was then followed by a suggestion for the researcher to use their views as a theological premise, to be proven by natural sciences’ research. In other words, these religious scholars realized that normative/religious understanding must be linear with scientific knowledge.

Then, pre-survey on those people who had interacted with natural science researchers concerned about peatlands, whether local, national, or international shows their knowledge of peatlands management technology, and even that they do understand the urgency and function of peatlands, at least to a certain extent. It is this group of people that harbors many critical questions concerning the actualization and/or follow up from the various experimental projects and academic narrations that once interacted with them. They are also the ones who really wanted a proof of the theological premise that Allah would not create something only to be “discarded”. They understand the advantages of peatlands.

This relatively well-informed group about the functional benefits of peatlands of course would have interacted with other parts of the society, thus the spread of information concerning peatlands should be a logical conclusion. The same thing applies to the theological standpoint, which also should have been communicated through social interactions. But then, why is the perception of peatlands as “something that is solely for discarding/burning” still popular?

² Abu l-Fida>’ Isma>’i>l bin Kathi>r, *Tafsi>r al-Qur’a>n al-‘az}i>m*. Vol. 1. Semarang: Toha Putra, page 439. See also Jala>lu al-di>n al-Mahalli and Jala>lu al-di>n al-Suyu>t}i, *Tafsi>r al-Qur’a>n al-‘Az}i>m*. Surabaya: Da>ru l-‘A>bidi>n, page 68; Ahmad Mus}t}afa> al-Mara>ghi>, *Tafsi>r al-Mara>ghi>*. Vol. 2. Beirut: Da>r al-Fikr, page 93.

B. Problem Formulation

The above pre-survey data drives us to an understanding that there is a split in people's perception and treatment of peatlands. On one hand, peatlands' existence is treated as something "to be discarded", which means, "extra work and costs"; meanwhile on the other hand there are those who urged for a peatland management option that is more in line not only with the theological premise, but also with natural science's perspective. Thus, the core question of this article relates to, "The Dynamics of Kubu Raya People's Split in Understanding and Treating Peatlands." Elaborated, that core question can be specified as follows:

1. In practical terms, how do people treat the peatlands around them?
2. In ideal terms, how should people treat the peatlands around them?
3. How is the format of the "knowledge gaps" format concerning the function of peatlands between groups of people in Kubu Raya?
4. What kind of solutive transformation concerning the presence of peatlands that can give rise to "win-win solutions" for the various sides, both for groups in and outside of Kubu Raya?

The last question is the main question, because "peatland" in essence is a common problem, because when fires happen, the carbon stored in peatlands would be released to the atmosphere, contributing to the exacerbation of climate change as a logical consequence.

C. Discussion

1. Peatland and its Function

Recently, peatland becomes a hot topic again. Baru-baru ini gambut kembali menjadi perbincangan hangat. This is not only in relation to the difficulty of extinguishing forest fires on peatlands, but also the losses caused by the burning of peatlands, which is viewed very important in preventing global warming and maintaining global climate equilibrium.

We might hear about peatlands often, but there are still many things not yet understood about what peatland itself is.

a. Peatland

The word “gambut” is a loanword from Banjar language (South Kalimantan). In English, other words used besides peat are bog, moor or fen.³

Peatlands is a kind of wetland formed from a pile of organic matter originating from rotting remains of trees, grass, mosses, and animal carcasses, through processes taking hundreds or even thousands of years. Since it is formed from organic matter, it has a high carbon content.

Peatlands starts forming in shallow lakes overgrown by water plants and other plants that usually grow in wetlands (Agus and Subiksa, 2008). Then, the plants died and decayed, forming an organic layer at the bottom of the lake. After a long stretch of time, layers upon layers of peat formed on top of the mineral soil at the bottom of the lake. Those layers continue to increase in number, until the shallow lake is filled in, resulting in the formation of a peat layer called topogen peat. Due to the mineral soil from the bottom of the lake, topogen peat is usually quite fertile. This peatland can also experience mineral enrichment that enhances its fertility, if a deluge happens⁴.

Because it is quite fertile, plants can still grow well on topogen peatlands. Then, when those plants died, they would decay and form a new peat layer, which is higher than the original lake surface level. This new, dome-shaped layer is called ombrogen peat. Ombrogen peat’s formation is usually influenced by rainwater, thus it doesn’t experience mineral enrichment and it is less fertile compared to topogen peat.⁵

b. Peatland’s Function

Peatlands serve an important role in global climate change. Despite only covering 3-5% of land area globally, peatlands can store up to 550 gigatons of carbon, or equal to 30% of all carbon stored in soils all over the world. Thus, when those peatlands are either dried or altered, their carbon content would be released to the atmosphere⁶.

³ Wikipedia.

⁴ Widyati, E. & Rostiwati, T., *Memahami Sifat-sifat Tanah Gambut untuk Optimasi Pemanfaatan Lahan Gambut*. Journal Mitra Hutan Tanaman. August 2010. Vol. 5 No, 2, page 57-68

⁵ Ibid

⁶ http://www.cifor.org/publications/pdf_files/brief/6476-brief.pdf Downloaded Oct 11, 2019

The hydrophysical property of peatlands allow them to absorb water up to 450-850% of their dry weight, or up to 90% of their volume. Thus, peatlands also serve an important role as freshwater absorber that can prevent flood in rainy seasons and provide water in dry seasons.⁷

Peatlands are also the natural habitat (ecosystem) of several economically valuable plants for the surrounding people. Plants such as thatch, rattan, rubber, pineapple, rice, sugarcane, jelotong, and others can grow well in peatlands. Besides that, peatlands are also ideal to cultivate several types of fish, such as patin siam, lele dumbo and nila.

In European cold climate countries, such as Ireland, England, Germany, Russia, and Finland, peat is used as alternative energy source to firewood for cooking and home heating. Meanwhile, in modern usage, peat is harvested in Finland on an industrial scale and used as fuel for a peat-powered power plant. The largest power plant in Finland (Topilla Power Station) produced 190 MW of electricity. The energy contribution of peat in Finland reaches 5-7%.⁸

2. Distribution of Peatlands

The total area of peatlands in Indonesia is not yet known for sure. This is due to differing definitions of peatlands, mapping methodology, and the constantly changing nature of peat due to natural effects, all causing differences in peatland area data. As seen in the table below⁹:

⁷ <https://pantaugambut.id/pelajari>. October 11, 2019

⁸ <https://en.wikipedia.org/wiki/Peat>. October 11, 2019

⁹ Tedy Prasetiawan. *Masa Depan Lahan Gambut Indonesia*. Jurnal Aspirasi. Vol. 1 No. 2, page 259

Tabel 1. Perkiraan Luas dan Sebaran Lahan Gambut di Indonesia Menurut Beberapa Sumber

Penulis/Sumber	Penyebaran gambut (dalam juta hektar)				Total
	Sumatera	Kalimantan	Papua	Lainnya	
Driessen (1978)	9,7	6,3	0,1	-	16,1
Puslittanah (1981)	8,9	6,5	10,9	0,2	26,5
Euroconsult (1984)	6,84	4,93	5,46	-	17,2
Soekardi & Hidayat (1988)	4,5	9,3	4,6	<0,1	18,4
Deptrans (1988)	8,2	6,8	4,6	0,4	20,1
Subagyo <i>et al.</i> (1990)	6,4	5,4	3,1	-	14,9
Deptrans (1990)	6,9	6,4	4,2	0,3	17,8
Nugroho <i>et al.</i> (1992)	4,8	6,1	2,5	0,1	13,5*
Radjaguguk (1993)	8,25	6,79	4,62	0,4	20,1
Dwiyono & Racman (1996)	7,16	4,34	8,40	0,1	20,0
Wetlands International – Indonesia Programme	7,20	5,77	-	-	-

*) tidak termasuk gambut yang berasosiasi dengan lahan salin dan lahan lebak (2,46 juta hektar); (tidak ada data)
(Sumber: Euroconsult, 1984, dalam KK-PLGN, 2006: 8-9)

c. Risk of Peatland Loss

Keppres No.32 year 1990 and UU No.21 year 1992 about mapping of peatland areas declared that all area with peat as thick as 3 m or more, which are located in river sources and swamps, are to be treated as protected areas, which function as water storage and flood stopper, as well as protecting the unique ecosystem in the area.¹⁰

The irreversible dry state of peat makes it no longer able to absorb water, even if it then receives water again (for example, through rain). Peatlands that have dried irreversibly would have a very light weight, making it easy to be carried away by water, and its structure turns into loose layers that are easily burned.¹¹

If the peatlands dry out and burn, its absorbing function turns into a source of greenhouse gas emission. Greenhouse gases produced by peat are CO₂ (carbondioxide), CH₄ (methane), and N₂O (nitrogen oxide). Among these 3 gases, CO₂ is the most important, due to its relatively large amount. Greenhouse gases emitted mainly comes

¹⁰ Tim Sintesis Kebijakan, Pemanfaatan dan Konservasi Ekosistem Lahan Gambut di Kalimantan. Jurnal Pengembangan Pertanian 1(2), 2008: 149-156

¹¹ Ibid

from peatlands that has changed function from forests into farms and settlements.¹²

2. The Ethnomics of Peatland

Ethnomics is an acronym of *Ethical Economics*, also known as *ethics join economics*. This field of study emerges from realization of the agency of ethics elements in the process of economic decision-making. The goal is to include social and environmental costs analysis in economic decision-making. Thus, the main element of *Islamic Ethnomics* is the construction of ethics formulations based on Islamic theological arguments.

Amartya Sen and Peter Ulrich are some of the academics leaning towards the growing concern highlighted by ethnomics. Amartya Sen gives an adequate explanation concerning the risk of being trapped in economic decisions due to the philosophy of self-interest, to the point of ignoring rationality,¹³ which is where human's comparative advantage as Allah's caliph/viceroy lies, in Islamic worldview. In line with Sen, Peter Ulrich also delivers a sharp critique to what he called "ethics-free economics". For Ulrich, economic behaviors, activities, policies, and regulations need to include the element of ethics in human's economic rationality.¹⁴

The significance of ethnomics increases day by day; and clearly this is not merely an academic problem but also a real problem, directly experienced by people in Kubu Raya Regency, as one of the regencies with a rather large oil palm plantation. The expansion of palm plantations that causes deforestation, reckless land clearing (including using the "burning" method) and careless treatment of peatlands are among the causes of palm oil's continuously decreasing selling price, due to worldwide boycott of all palm products.¹⁵

¹² Enny Widyati, *Kajian Optimasi Pengelolaan Lahan Gambut dan Isu Perubahan Iklim: Overview on Optimizatin of Peat Lands Management and Climate Change Issues*. https://www.forda-mof.org/files/KAJIAN_OPTIMASI_PENGELOLAAN_LAHAN_GAMBUT.pdf Downloaded Oct 11, 2019

¹³ Amartya Sen, *On Ethics and Economics*. Malden, MA: Blackwell Publishing, 1987. <https://alvaroaltamirano.files.wordpress.com/2010/05/amartya-sen-on-ethics-and-economics.pdf>

¹⁴ Peter Ulrich, *Ethics and Economics. Handbook of Business Ethics Ethics in the New Economy*. Edited by Laszlo Zsolnay Oxford, Bern, Berlin et al: Peter Lang 2013 Chapter 2 (pp. 7-34) https://www.alexandria.unisg.ch/220626/1/Ethics%20and%20Economics_PUlrich.doc.pdf

¹⁵ This boycott is obviously prone to debates, particularly political economy ones, as palm oil plantations are mainly located in developing countries in Africa, Central America, and Southeast

Thus, economic rationality requires ethics, and the highest ethics for religious men are of course ethics that come from their religion's teachings. If this is realized, then all activities in the real world, including economic activities, would not be separate from religion; and Islam is a religion whose teaching's substance is the inseparability of religion and the world.

a. Nature: An Islamic Worldview

What is nature? How should humans position themselves towards and treat nature? These 2 questions are very essential, because the answer to each would affect the form and character of human-nature relations, relations that would be the basis for all the decisions made by either individual and/or groups, including economic decision.

Thinking about the creation of the universe is explained¹⁶ in QS. Ali Imron: 191 to give the conclusion about how wonderful nature is. It is so wonderful, to the point that it is understood that even if one notices a defect in nature, it is merely sign of their inadequate understanding, thus the sentence *Subha>naka fa qina> 'adha>ba l-na>r*¹⁷ becomes the logical consequence.

1) Nature is created for humans.

The view that everything in nature is provided for human's needs is a very common view. The view that the sun, moon, and the stars (QS. 6:96-97); the earth, sky, and rains (QS. 2:22) and other natural objects are created by Allah for human use, to fulfill their needs is a viewpoint that can very easily be obtained from amongst Muslims.¹⁸

The above viewpoint, if not accompanied with a more in-depth understanding, is prone to give rise to a man-centered worldview (where all is solely geared for humans), or in the economic context, self-interest (solely focused on personal gains) which besides being narrow, temporal, and palliative, also ignores the wider and longer-

Asia. Despite these problems, the treatment of peatlands still needs social and environmental considerations.

¹⁶ The suggestion present in Tafsi<r al-Mara<ghi forms the saying, *al-fikr sa> 'atan afd{alu min al- 'iba>dah laylatan* (Thinking for an hour is better than praying for a night). Ahmad Mus}t}afa> al-Mara>ghi, *Tafsi>r al-Mara>ghi*. Vol.2. Beirut: Da<r al-Fikr, page 93.

¹⁷ Which means: "Our Lord, Thou hast not created this in vain; nay, Holy art Thou; save us, then, from the punishment of the Fire.". This last part of QS. Ali Imran: 191 is linear with the popular sayings *Al-Na>s a 'da>u ma> jahilu>* (Man is enemy of what they do not understand), a statement from Ali bin Abi T}a>lib, the fourth Caliph, titled as "The Key of Knowledge".

¹⁸ QS. Al-A'ra>f:10. Theological arguments on this premise can be found in many verses of Al-Qur'an, such as QS. ar-Ra'du 3-4; QS. Yunus: 5, 67; QS. Al-Hijr: 19-22; QS. An-Nahl: 30, 81; QS. Al-Isra: 12; Thaha 53-54; Al-Anbiya 31-32; Al-Hajj 65; Al-Furqan 48-49; An-Naml 60-61; Al-Ghafir 64; Az-Zukhruf 10-13; Az-Zaariyat 48; Ar-Rahman 10-12; Al-Mulk 15; Nuh 19-20; Al-Mursalat 25-27; An-Naba' 7-16.

term interests. If this happens, it means that there has been a mistake in interpreting the Islamic worldview of how humans should treat nature.

The human-nature relations in Islamic view refers to the matter of trust and responsibility of caliphate. Humans as *khalifah*/viceroy (QS. 2:29) have several meanings, such as;—being God’s representative/replacement (the original meaning of the word *khalafa*) and leader (operational meaning) on Earth. Thus, stating that the meaning of *khalifah* in this relation is humans as subjects¹⁹ and nature as objects is a massive oversimplification, because humans carry the burden of trust in the form of the mandates and duties attached to their life. A viceroy carrying the mandate of course would prioritize the interests and well-being of those entrusted to them. “Who/what” is trusted to them in this context is the subject that becomes the orientation of the viceroy’s mandate.

The above perspective becomes more crucial when nature is positioned as a way to know God (*min a>ya>ti –llah*). Thus, the position of nature for a viceroy is not just as a subject to be paid attention to, but also as a medium to understand God’s greatness. The implication of such theological standpoint makes nature not merely an object to be used, but as subject whose continuing existence needs to be maintained, considering its functional status as a medium to know the *rahma>an* dan *rahi>m* of the Creator. Simply, nature is a mandate to be managed as good as possible, not an object to be exploited, thus the viceroy can understand the human relations pattern with nature in this world.

The substance of QS. 2:30-35 talks about the mandate of caliphate/viceroyalty given based on human’s rationality, with the caveat of self-control to not approach the “tree” (*wa la> taqraba> ha>dhihi al-shajarata*) and/or eat its fruit (*khuld*, QS 20:120)²⁰ as a

¹⁹ Humans as *khalifah* occupies the position as subject, using nature to know God, making use and conserving nature. Kementerian Lingkungan Hidup. 2011. *Teologi Lingkungan Hidup*. Jakarta: Deputi Lingkungan Hidup. Page 6. Qurtubi explained that the presence of humans as *khalifah* on Earth, also shows all their potential to greatness, as well as stating only Allah has a claim to ultimate greatness.

²⁰The word “*khuldi*” in verse 120 of Sura T}a>ha (20) is interpreted by Ibn Kathi>r, citing Mujahid, Qatadah and Ibnu Juraih, as some sort of date, grape, ti>n, etc. Abu l-Fida>’ Isma>i>l bin Kathi>r, *Tafsir Ibn Kathi>r*. Vol. III, page 97). Different from Ibn Kathi>r, ar-Ra>zi states that the fruit is like those from trees that grow not far above the ground, like broccoli or watermelon. Fakhruddin ar-Razi, *Tafsi>r al-Kabi>r*. Cairo: Muassasah mat}bu>’ah al-Isla>miyyah, no year. Vol. 3, page 5-6.; **however** the word “*khuldi*” itself etymologically means eternity. Thus, the writer tends to interpret it as a metaphor for the relation between the lust of self-interest with the decreasing quality of the eternal nature. Eternal here is of course not the same thing as Allah’s eternity, so it is more like a very long time.

metaphorical warning of the dangers of self-interest, as the aspect most vulnerable to Satan's temptations. In this context of environmental ethics, Adam and Eve's self-interest of "eternalizing" their heavenly comfort manifests through consuming/draining the "old age" nature of natural environment. ❁

The logical implication of this story is the ideal of natural conservation, which includes cultivation in its episteme. It is through this worldview that one can understand why *Qa>bil* and *Ha>bil* "farms" and "raises cattle", despite the fact that nature's capacity to fulfill the daily needs of six people is still more than enough to not need agricultural activities. In other words, the story of Adam AS.'s sons *Qa>bil* and *Ha>bil* (*Cain and Abel*) is not only limited to the perspective of the first murder committed on Earth (Scripture's version)²¹, but also interesting to be studied from the perspective of nature management.

On the other hand, QS. Al-Ma'idah / 5:32 explicitly said that anyone who causes destruction on earth, (their crimes) is no different from murdering all humans, and vice-versa, that anyone who nurtures life on Earth is no different from giving life to all humans.²²

This message to nurture nature to prosperity (*'ima>ratu l-ardl*) is so strong, that even if the fruits of this nature management is enjoyed by others, it is counted as *charity* (*s}adaqah*), both for the social environment or for the animals.²³

²¹ Norman Stillman, *The story of cain and abel in the qur'an and the muslim commentators: Some observations*. Article (PDF Available) in [Journal of Semitic Studies](https://www.researchgate.net/publication/238410257) XIX(2):231-239. Sept 1974. <https://www.researchgate.net/publication/238410257> *The story of cain and abel in the qur'an and the muslim commentators Some observations* ; Siti Mariyatul Kiptiyah, *Kisah Qabil dan Habil Dalam Al-Qur'an: Telaah Hermeneutis*.

<https://www.researchgate.net/publication/335626606> *Kisah Qabil Dan Habil Dalam Al-Qur'an Telaah Hermeneutis* ;

²² QS. Al-Ma'idah / 5 : 32

مِنْ أَجْلِ ذَلِكَ َوَكَتَبْنَا عَلَىٰ بَنِي إِسْرَائِيلَ أَنَّهُ مَن قَتَلَ نَفْسًا بِغَيْرِ نَفْسٍ أَوْ فَسَادٍ فِي الْأَرْضِ فَكَأَنَّمَا قَتَلَ النَّاسَ جَمِيعًا ۚ وَمَنْ أَحْيَاهَا فَكَأَنَّمَا أَحْيَا النَّاسَ جَمِيعًا ۗ وَلَقَدْ جَاءَتْهُمْ رُسُلُنَا بِالْبَيِّنَاتِ ۖ ثُمَّ إِنَّا كَثَّرْنَا مِنْهُم بَعْدَ ذَلِكَ فِي الْأَرْضِ لِمُسْرِفُونَ

²³ Hadith recounted by Anas from Rasulullah SAW.: "*Ma> min muslimin yaghrisu gharsan, aw yazra'u zaqr'an fa ya'kulu minhu t{ayrun aw insa>nun aw bahi>matun (fi riwa>yatin: da>bbatun) illa ka>na lahu bihi s{adaqatun*". Hadi >th 1082. Mukhtas}ar Sah{i>h} al-Ima>m al-Bukha>ri. Vol, 2, page 109

D. Management of Peatlands

The Islamic theological premise is universal, thus its applicability covers all that is present in the world. The ranking of nations based on the total area of peatlands present in their territory, based on data from United Nations, is as follows:

Tabel: 10 Besar Distribusi Lahan Gambut²⁴

No	Country	Km ²	No	Country	Km ²
1	Russia Asia	1176280		USA (Lower 48)	91819
2	Canada	1133926		Finland	79429
3	Indonesia	265500		Swedia	65623
4	Russia Europe	199410		Papua New Guinea	59922
5	USA (Alaska)	131990		Brazil	54730

Based on field surveys and literature studies, the existing variants of perception and treatment of peatlands among people in various nations of the world is as follows:

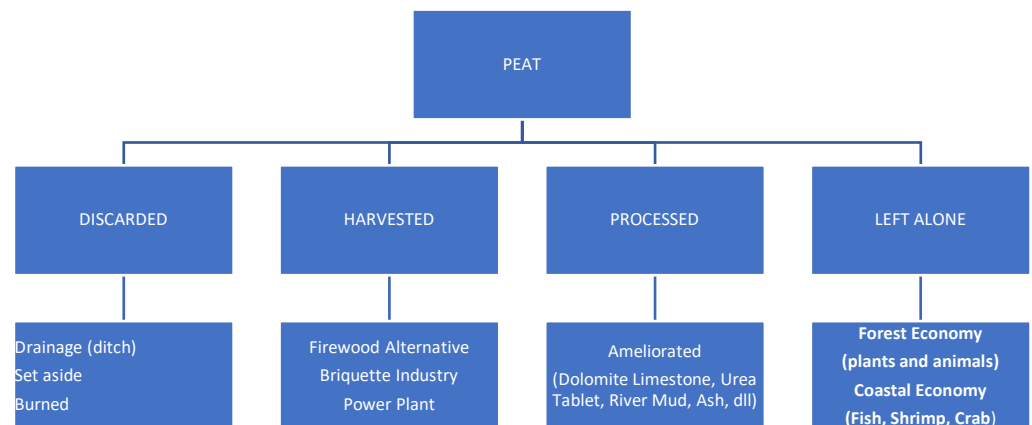
1. **Discarded**, whether by rolling, pushed to the edge by bulldozers, flown through drainage (ditches), or burned. The last method is relatively preferred due to being the most practical and the cheapest. These treatments are based on the perception that for agricultural lands, the peat present in the soil must be discarded (*Land Clearing*). Some of the people that prefers these treatments “know” that the peat does not need to be discarded, but instead augmented with ameliorants (such as dolomite limestones, burn ashes, urea tablets, river muds, sawdust, etc.) but they didn’t do that, with the reasoning that it is “extra work” and “extra cost”. This attitude, if viewed from the lense of Islamic theology, of course raises a question, “Could it be that there is among Allah SWT.’s creations something that exists only to be discarded?” Celarly, this is in opposition to the Islamic theological standpoint, as made clear in QS. Ali Imran: 191.
2. **Harvested** to be used as additive media, due to its ability to preserve soil humidity. In colder areas of Europe, peat is used as an alternative to firewood for cooking and heating rooms.²⁵ Besides that, peat is also used for power plants, such as in Ireland, Finland, Rwanda and Kenya. This treatment might be better than just discarding the peat. From Islamic

²⁴ <https://unfccc.int/sites/default/files/draftpeatlandco2report.pdf>

²⁵ <http://www.fao.org/3/x5872e/x5872e0b.htm>

theological perspective, this treatment might be justified, due to how many Qur’anic verses stating that nature is created for man that exists. However, the self-interest philosophy apparent here is still, on the wider scale, in opposition to the principle of “*maslahat/benefit*” and “*rahmatan li l-‘a<lami>in*” that is Islam’s benchmark, since this usage of peat as fuel would still contradict the natural purpose of peatlands and creates threats to natural ecosystem. This point is proven by the serious condemnations leveled against this treatment.²⁶

3. **Processed** through adding dolomite limestones²⁷ and urea tablets²⁸ to reduce the acidity of peatlands, which retards the growth of plant roots. There are also those that adds ameliorants (such as mixture of manure fertilizer, burnt ashes, limestones, river muds, etc.).
4. **Left alone** just as its natural conditions. People benefits from its utility values through forest economy, such as the plants and animals present in it, the honey produced by wild bees, rattan, etc. Meanwhile, for those peatlands at the coasts, people can raise crabs, shrimps, and fish on them.



These 4 variants of peatland treatments show the presence of a “knowledge gap”, separating those who understand from those who doesn’t, and those who consider ethics from those who doesn’t. This condition would inevitably lead to a conflict of interest, as it concerns a very large area of land.²⁹

²⁶ <https://www.biofuelwatch.org.uk/2018/ireland-peat-biomass-open-letter/>

²⁷ Satria Sumarwan, Yudha Arman, *Pengaruh Kapur Dolomit Terhadap Nilai Resistivitas Tanah Gambut*. <http://jurnal.untan.ac.id/index.php/jpflu/article/view/11662>;

²⁸ Hercules Gultom and Mardaleni Mardaleni, *Penggunaan Urea Tablet dan Kapur Dolomit Terhadap Pertumbuhan Produksi Tanaman Padi Sawah pada Tanah Gambut*. <http://journal.uir.ac.id/index.php/dinamikapertanian/article/view/899>

²⁹ Minimum total of 196.404 .332.152 square km until maximum total of 275.424 .570.609 square km. See Susan E. Page, Christopher J. Banks, John O. Rieley, *Tropical Peatlands: Distribution,*

E. Conclusion

Based on the above discussion, it can be concluded that there are 3 groups of perspective, they are:

1. Peatlands are a problem, because the land can only be used if the peat is discarded, which means extra work and costs.
2. Peat, just like other natural resources, has utility and economic value.
3. Peatlands need to be preserved as it is, due to its function as carbon storage, water catchment (detention), and conserving the important biodiversity of the area.
4. Conflict of interest between each category needs a just solution for all people in all categories.

Leaving peatlands as it is, in the sense of making them conservation areas need to also consider the economic rights of the surrounding community. Processing peatlands through amelioration needs to consider the extra work and costs needed. Considering their natural function, mainly as carbon storage and water catchment area needed by the world, the global community should take part in economically compensating the people around the peatlands.

The knowledge gaps in choosing the ideal treatment of peatlands need to be bridged through education; and it is in this context Islamic Ethonomics, particularly the Islamic worldview concerning humanity's role as Earth's manager, with the duty to make Earth prosper ('*ima>ratu l-ardl*) and also Allah's viceroy on Earth can have a significant contribution.

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