

THE ECONOMY OF MANGROVE OF BATU AMPAR

“A Dilemmatic Choice between Necessity and Broader Economic Benefits”¹

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Abstract

Charcoal Industry in Batu Ampar is an irony. First, the materials used is the best mangrove in Asia. Second, The technology employed is an old-fashioned technology since it was brought in at the beginning of twentieth century which result in low quality of charcoal. Third, deforestation of Mangrove is the annihilation of many economic assets. Mangrove Forest is not only functioning to prevent abrasion but also the best place for germination (fish, shrimps, crabs, etc.) and Mangrove Honey Bees. But, it is what is called an irony. Man tend to prefer an instaneous benefit rather than the real one. Man prefer the easiest way to make a living, no matter how much loss they will be. Man prefer dunya> (instaneous, temporal and palliative advantages) and abolish a>khira (real, later, hereafter benefits). The average sum of Rp 30.000.000,- per charcoal furnace for 40 days which let it's owner to make Rp 5.000.000,- works like a magic bewitching Batu Ampar Community. Hundreds of charcoal furnaces are in action. Fortunately, a group of young men begin to develop a Soka Crab Cultivation instead of destroying the ecology of Mangrove Forest of Batu Ampar, Hopefully, they would be able to show the Mangrove Charcoal Community of how beneficial the Mangroves are, in terms of ecomy, nature but theology.

A. Introduction

In Islamic perspective, the relationship between humans and their world hinges on the matter of “caliphate”. Human as caliph/*khalifah* (QS. 2:29) has several meanings, such as: Allah’s agent/viceroy (the root meaning of the word *khalafa*) and as leader of Earth (the operational meaning). As a leader, humans

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not only enjoy the privilege of mastery over nature, but also duty and responsibility to take care of it².

This perspective becomes stronger, when nature is portrayed as an avenue to understand Allah (*min âyâti-llah*, QS....). Thus, nature is not merely an object whose interests and well-being should be taken care of, but also an avenue to understand the greatness of Allah. The implication of this theological standpoint makes nature not only something to be used, but also to be conserved, considering its functional status as an avenue to know The Creator's mercy and grace. In short, nature is not an object of exploitation, but something entrusted to be managed and administered as good as possible, so that one understands the relation between human and nature.

Humanity being "agents" indicates that the essence of their creation, whether from the perspective of shape, form, and potential is made to be as perfect as possible. Their presence is equally as meaningful as the world; thus, humans are judged worthy to be Allah's caliph/viceroy on Earth. However, the inherent imperfection of creatures is also present in their capacity for destruction and bloodshed, (QS. 2:29) sometimes driving them to oppose Allah's commandments. The existence of these potential defects can be interpreted as Allah giving humans freedom to intervene, control, and develop everything present on Earth as much as possible.³

Allah indicates—at least—two things in humans that differentiates them from other creatures, which is intellect and instinct. However, these two elements often clash against each other, often resulting in one extinguishing the other. This seeming lack of harmony is in fact a manifestation of Allah's justice,

² Humans' role as "caliph/viceroy is to know Allah through utilizing and maintaining nature. Ministry of Environment. 2011. *Teologi Lingkungan Hidup*. Jakarta: Deputy of Environment. Page 6. Qurtubi explained that humanity's status as viceroy also implies that all their potential for greatness and power come from Allah, the only one with a claim to all greatness and power.

³ Al-Baqarah (2):30. *And when thy Lord said to the angels: 'I am about to place a vicegerent in the earth,' they said: 'Wilt Thou place therein such as will cause disorder in it, and shed blood? — and we glorify Thee with Thy praise and extol Thy holiness.' He answered: 'I know what you know not.'* Explanation for Al-Baqarah verse 30, see Recep Dogan. 2013. "The Position of Human Being in The Universe According to Islam," dalam *Sociology and Antropology* (Horizaon Research Publishing). DOI:10.13189/sa.2013.010302. Pages 142-143.

a logical implication of the scheme of blessings and sins, good and evil, promise and threat, and heaven and hell. Humans are the ones who need to harmonize the two sides⁴, choosing what serves their duty as Allah's viceroy/*khalifah*.

The essential relations between humans and nature also depends very much on the harmony between intellect and instinct, because the conservation of nature as an instrument to know God, and a resource for life is intricately linked with that harmony. Humans would lose control of the world when nature is overused, exploited, and abandoned as an instrument to know God, leading to its destruction.

This harmony between intellect and instinct would be very easy to obtain when humans can delve into themselves, since humans naturally has a transcendent element in the form of their ability to mimic God's sacred attributes and characters.⁵ In the modern perspective, humans have an important role as a symbol of God Himself, who in turn granted humans great powers. Human's existence in this world is not the end goal, but merely the start of a long journey (*al-ûlâ*). The provisions one need to pass through this life can be obtained through studying the revelations, although it needs to be remembered that religion alone would never yield any change without the aid of scientific processes.⁶

Human's existence—according to Islamic theological description—began with Adam, portrayed as a perfect human, who is also still fallible and able to sin.⁷ This combination of perfection and sin in Adam as a human is a reflection of the presence of Godly elements in humanity. Another explanation posits that humans have 3 great powers in them.⁸ *First*, the union of Godly elements in humanity is called *maqam jami'i*. *Second*, the strengthening of

⁴ Waulter Kaufmann. 1980. *Discovering the Mind*. New York: McGraw-Hill Book Company. Page 15.

⁵ Richard Rorty. 1979. *Philosophy as The Mirror of Nature*. New Jersey: Princeton University Press. Page 27.

⁶ Recep Dogan. *Ibid*. Page 145.

⁷ Ibn 'Araby. 1997. *Kitabul Isfar an-Nataiji al-Asfar*. Beirut: Dar al-Sadir.

⁸ *First*, *maqam jami'ie*, meaning God's presence in humanity. *Second*, *maqam barzahiyyat*, meaning potential. *Third*, *maqam khilafat*, meaning responsibility. Abdul Hamid Sinanoglu. 2008. *Insan Kamil*. Scholastic Theologi Research Journal, vol. 6. Pages 93-114.

Godly elements and powers in humans is called *maqam barzahiyyat*. Third, the power of responsibility and trust in themselves is called *maqam khilafah*.

Specifically, the relation between humans and nature is an interrelation between subject and object, where humans make use of nature while also conserving it. In this relation, Allah gives both potentials and weaknesses, in the form of intellect (strength) and instinct (weakness). Rather than letting the two weakens each other, they must be harmonized. In order to direct these two elements into achieving an effective mutualistic relation, humans must start from an authoritative theological sources (reveations), then compound it with scientific methods. This is in essence a simplification of the three *maqam*, combined until a perfect human (*insan kamil*) is created. These perfect humans are those who know God through using and conserving nature.

B. Discussion

Humans as God's viceroy should not cause destruction of the God-created harmony of nature, as He said in QS. al – A'raf (7):56.⁹ From His words, we can see that Allah doesn't want for His creations to be destroyed and exploited by humans, without humans also bearing the corresponding responsibility to conserve them. This implies that Allah wants humans to be able to act accordingly, as the supposed greatest and most perfect creation.

Humans as viceroys of Allah can manipulate the various natural resources available using scientific methods, in order to discover the various laws, concepts, and theories of nature. This developed knowledge and science should then be used to understand Allah's scripture, Al-Qur'an in its capacity as a guide in understanding humanity's problems, including the problem of nature's destruction.

One of the reasons leading to humanity's overexploitation of nature—both legally and illegally—is in order to fulfill economic/material needs. According to Karl Marx's interpretation of capitalism, the existence of material

⁹ QS. al – A'raf (7):56: “And cause not corruption upon the earth after its reformation. And invoke Him in fear and aspiration. Indeed, the mercy of Allah is near to the doers of good.”

goods would spark the idea and concept of production.¹⁰ The existence of these material goods would then spark the birth of ideas among humans; for example, an idea to process mangroves into charcoal. This processing of mangroves into charcoal had been done for a long time, giving rise to a certain relationship between humans and nature. However, this relation tends to be imbalanced and prone to overexploitation, as seen in Batu Ampar Subregency, Kubu Raya Regency, West Kalimantan Province.

This tendency to overexploit nature, based on instincts to fulfill the basic economic needs, started to happen on a large scale since companies holding Forest Exploitation Rights (HPH) started operating there, with their golden age lasting from the 1970s to the 1990s. Unwittingly, instead of a social “golden age”, this period turned out to be the beginning of an era of spiritual crisis and estrangement, a replacement of the old systems of life with a capitalistic system, leading to the abandonment of humanity’s responsibility to manage nature responsibly.

This estrangement/alienation happened because the community shifted from the masters of their natural resource potential into the “tools” of exploitation for the benefit of the capitalists, leading to a continuous (over)exploitation of the forests. Piles of wood logs, either shaped into the form of rafts or carried in trucks, are transported daily, whether felled from the nearby logging sites or sent from farther sites. This is despite the fact that nature’s capacity to support this kind of endeavor is not unlimited. This scientific development of humanity, based solely on instincts to fulfill economic needs, obviously distanced them from God’s gift of intellect and their responsibility to conserve nature. Thus, Batu Ampar’s glory days as a hedonistic small town, buoyed by their great natural resources since 1960s, unsurprisingly ended in 1997, after some of the HPH-holding companies there closed their business.

¹⁰ Society depends on the material conditions of their life, where the economic substructures they develop to fulfill their basic needs (like the struggle of humans against nature) would determine their political and legal superstructure. Thus, society is an evolutionary equilibrium whose social relations and awareness is determined by their main material production models, such as their economic system. Graham C. Kinloch. 2005. *Perkembangan dan Paradigma Utama Teori Sosiologi*. Bandung: Pustaka Setia. Page 107.

However, this instinct to overexploit nature would still emerge from time to time. The extinction of the great log-producing trees turns out to not be any hindrance to humanity's ego and instincts to fulfill their economic needs, thus they switched their focus to mangrove exploitation. This condition should be a medium for reflection and self-evaluation concerning this destruction of nature for economic needs, turning back to the thoughts and responsibilities portrayed in the laws and teachings found in Al-Qur'an.

This instinctive exploitation of mangrove-made charcoal continues to proceed, alongside the community's dependence on the capitalists. In Batu Ampar, one can see the mangrove charcoal-producing furnaces, alongside the felled mangrove stems as their duel. Mangroves, which should serve as the protectors of beaches and riverbanks from abrasion, as well as shelter for threatened animals in the ecosystem, are instead used to fuel humanity's greed.

1. Usage of Nature

The the existence mangrove forests in the beaches and riverbanks of Batu Ampar, amounting to around 65,585 hectares are becoming more fragile. In total, 32,400 hectares of it are used as production forests, while 33,185 hectares are protected forests, and 6,000 hectares are used by the local community, such as for cooperatives and other enterprises. There are two HPH-holding companies operating in Batu Ampar, they are PT. BIOS, who controls an area of 10,000 hectares and PT Kandelia, who controls a concession of 16,300 hectares.¹¹ This non-stop exploitation of mangroves seems to no longer pay any heed to ecological and ecosystem concerns. Riverbanks are experiencing abrasions; peatlands are continuously being eroded and replaced with mud, making economically high-valued animals such as fish, shrimps, and others such as mangrove honeybees harder to find.

This materialistic tendency of life driven by capitalistic economic needs continues to blind humans from nature. Nature is continuously treated

¹¹ Data from the Regional Environmental Impact Control Agency—Bapedalda—West Kalimantan Provinsi, 2011.

as mere objects of exploitation and oppression by humans. After they felled most trees into wood logs, now they're turning mangroves as mere charcoal-producing commodities, all to fulfill their economic needs.

This over-exploitation of mangrove indicates that materialism, capitalism, and pragmatism are still the main basis of human behavior in Batu Ampar. Their intellectual reasoning as God's chosen viceroy are extinguished by their base instincts, removing their sense of respect towards nature. Their perspective that mangroves "would never run out", due to its ability to rejuvenate itself without humans replanting them makes their economic activities involving mangroves, such as charcoal production, proceeds without restraint.

At the very least, 300 people have emerged as mangrove charcoal entrepreneurs, alongside the two HPH-holding companies. On average, each of these entrepreneurs employ 15 employees with specific job descriptions, such as gatherers and transporters of raw materials, arrangers of the wood in the furnace, furnace operators and maintainers, charcoal post-processors, and even packers. Economically, each entrepreneur on average earn Rp 5 million of net profit from Rp 30 million of gross profit over the course of the 40-day production cycle, with the net profit calculated after subtracting the cost of raw materials and workers' wages from the gross profit.

This perspective error, assuming that mangroves would never run out, shows humanity's limits of understanding the systems of their environment. As a result, their economic condition drastically worsens, the ecosystem of brackish waters in Batu Ampar started to vanish, etc.; all because of the mangrove over-exploitation. Felling mangroves is a solution of the need for food; without it they cannot eat. In an indirect way, such mindset unwittingly insults humanity's dignity as humans, and as God's

viceroy. Allah has created humans in the most excellent of forms,¹² and Allah has ennobled them with several primacies over His other creations.¹³

As viceroys/*khalifah*, humans should not only use the universe to know God, but also to make use of it and maintain it. Their intellectual knowledge of the importance to conserve nature ideally should triumph over their instincts that tend to ignore nature. Humans should realize the mangroves' functions in weakening the tides and winds; protecting the land from abrasion, preventing saltwater intrusion to the land, stabilizing muds, and capturing sediments. Mangroves also produces a significant portion of detritus and nutrients for planktons, as well as serving as nurseries, feeding grounds, and breeding grounds of various types of fish, shrimps, and other living things.

Society's impotence in facing the destruction of mangroves in Batu Ampar is not without reason. The effect of the destruction of mangrove forests known as the best in all of Southeast Asia¹⁴ has started to be felt by the fishermen communities, who saw their income dropping. In the past, they can earn anything between Rp 300 thousand to Rp 400 thousand, but now even earning just Rp 100 thousand feels very difficult, because the nature supporting them has been destroyed. This can also be felt when one walks along the river and mangrove forest concessions; the sounds of birds and other forest animals are no longer audible, only the roar of chainsaws can be heard all the time. The mangrove forests of Batu Ampar has been exploited so thoroughly, all for the greed of humanity.

2. Conservation of Nature

¹² "Surely, We have created man in the best make". QS. Al Tin: 4.

¹³ "Indeed, We have honoured the children of Adam, and carried them by land and sea, and given them of good things and exalted them far above many of those whom We have created." QS. Al Isra: 70.

¹⁴ Kubu Raya—particularly Batu Ampar—is claimed to have the best mangrove forests in all of Southeast Asia. This is because from the more than 60 types of mangroves in Indonesia, around 40 of them can be found in Kubu Raya—particularly in Kubu and Batu Ampar. <https://www.potensilokal.com>. Kubu Raya Punya Hutan *Mangrove* Terbaik Se-Asia. 17 March 2016.

With God's gift of intellect, along with their development of scientific methods, humans should be able to use mangroves as a natural economic resource, without stripping them of their function in the grand scheme of natural environment. Thus, humans' responsibility in this case is to control the quality and quantity of mangrove's economic values.

Humanity's massive over-exploitation of mangroves for fulfilling their capitalistic economic needs can be understood as a sign of their lack of understanding about mangrove's true purpose and benefits. These short-sighted exploitation methods are no more than signs of humanity's laziness in finding better and more sustainable methods. This kind of mindset is no doubt the source of all kinds of miseries, both for themselves or for other people, whether rich or poor, educated or ignorant, etc.; all fall short from the true intellectual humans who understand the laws of nature, and their responsibility as *khalifah*.

In the environmental economics perspective, mangroves involve a wide network. The mangroves growing along the beaches and riverbanks of Batu Ampar can be used to fulfill humanity's essential needs while still fulfilling their roles as a support structure and habitat for various animals, as long as humans do not over-exploit them.

This is where humanity's intellectuality as the viceroys responsible to conserve nature, not destroy it, comes into play. Islam considers the conservation of nature as humanity's responsibility as Allah's viceroy *khalifah* on Earth.¹⁵ Humans' responsibility is in organizing, maintaining, monitoring, and developing the environment to give benefits to humanity as a whole.¹⁶ If this mechanism proceeds without problems, humans can be

¹⁵ QS. Al-Baqarah (2): 30. This caliphate/viceroyalty has three interconnected elements, augmented with a fourth element that gives this caliphate its meaning in Islam's/Al-Qur'an's perspective. The first three elements are: (1) Humans, here referred to as viceroy/*khalifah*; (2) Nature/universe, specified by QS. Al-Baqarah (2): 21 as Earth; and (3) The relationship between humans and all of nature/universe, including other humans. Meanwhile, the fourth element is the one trusting humans with this duty, Allah Himself. M. Quraish Shihab. 1998. *Membumikan Al-Quran*. Bandung: Mizan. Page 295.

¹⁶ Zuhail Abdul Qadir. 1997. *Pembangunan Masyarakat Berdimensi IMTAQ dan IPTEK* in ed. M. Dawam Rahardjo. 1997. *Model Pembangunan Qaryah Thayyibah*. Jakarta: Intermasa. Page 124.

said to have fulfilled the demands of their position as *khalifah* on Earth. A healthy environment gives chance for the continuation of life in the whole ecosystem, while a polluted ecosystem would not be able to support it. Creating a positive environment supporting the continuing survival and welfare of all life is humanity's duty.¹⁷

Mangrove's natural ability to manage the layers of soil, maintaining the decay and function of peats, and managing the purity of air and water (among other things), can only be appreciated by an intellectual human, who can fully be aware of mangrove's role as a natural technical mover, whether physically, chemically, biologically, etc. The mangrove's mechanism as maintainer of nature is a reflection of a natural economic system that can be observed and studied by humans.

Humans are the only element of nature that possess intellect, truly placing themselves in the position of *khalifah*, responsible for managing the various beats of life in the ecosystem—the exact opposite of destroying them through over-exploitation.

This over-exploitation of mangroves is obviously disadvantageous, not only from human's perspective, but also from the natural economics perspective. True, this natural economics values cannot always be matched with the economic values created by humans. Thus, the usage of mangroves for human economic needs would obviously alter the state of nature. Now the relations between humans and nature are no longer harmonious, because Indonesians tend to over-exploit nature just to slake their egocentrism.¹⁸ As a result, in dry seasons water discharge level would decrease, exposing river sediments and triggering erosions.

With all of their scientific developments, humans should be able to control their usage of nature, particularly in the case of natural elements that are vulnerable to over-exploitation, such as mangroves. They have to make

¹⁷ Muhtarom. 2005. *Reproduksi Ulama di Era Globalisasi, Resistensi Tradisional Islam*. Yogyakarta: Pustaka Pelajar. Pages 58-59.

¹⁸ Goel Tiong Ann Jr. 2008. *Hilangnya Harmoni dengan Alam*. Jawa Post. 4 January. Page 4.

sure that the usage and exploration of mangrove does not surpass the environment's limits, because mangroves have important functions in supporting the welfare of humanity, or be the trigger of a disaster for them.

This discussion concerning economics does not automatically limit itself only to monetary matters, even if it will ultimately lead to it. This is because all of God's creation exist amidst the economic-based calculations of natural laws and ecosystems, including the limiting environment capacity. All this are regulated clearly and decisively by nature, particularly in forests, referred to as, "centers of evolutionary power", which shows the highest rate of evolutionary diversification; in short, these are the "wombs of life", teeming with species variety.¹⁹ This kind of mechanism needs to be understood by humans as *khalifah*, by immersing themselves in it so that they can understand the natural economic values and utilize them optimally without neglecting their conservation.

The reality observed in Batu Ampar shows that humans have not yet fully immersed themselves in the natural mechanism, as their exploitation of mangrove clearly damages the environment. If the natural system is damaged, restoring it to normal would be very difficult and time consuming, as one must depend on the new emerging natural laws to help restore the natural economic values of the mangrove.

This destruction of mangroves due to over-exploitation in Batu Ampar not only disadvantaged the human-made economic values, but also destroys the natural environment's system and economic value. Thus, humans have to be careful in their usage of nature, so that their exploits do not destroy it.

It seems that this over-exploitation of mangrove in Batu Ampar would not end, as long as the raw materials (mangroves) are still present. For humans blessed with intellect, this exploitation thus needs to be supported with knowledge and understanding of the mangrove's supporting

¹⁹ Vandana Shiva, *et.al.*, 1993. *Perspektif Sosial dan Ekologi Keragaman Hayati*. Translated by: Sri Nurhayati dan Ashol Kumar. Jakarta: Konphanlindo. Page 29.

capacity on the environment and natural system, because its existence clearly serves as an element in the nature's supporting capacity maintaining the ecosystem and natural laws.

Humanity's efforts to make use of mangrove for their needs by turning it into charcoal, and the effects it has on the environment, naturally drives humanity to develop new ideas to catalogue mangrove's supporting capacity, as well as ways to manipulate it, including ways to maintain it, such as through conservation.²⁰ This awareness to conserve mangrove starts to develop alongside the awareness to learn from the results of the current exploitative attitude²¹; one of the methods of the conservation is by opening crab ponds in mangrove area. This crab agriculture would be a success if humans manage to put their intellectuality and their responsibility as *khalifah*, that is to progress harmoniously with nature and environment, above their egocentric instinct to subjugate nature.

This crab agriculture through conservation concept needs the ability to manage various elements of environment, because it not only requires natural sciences, but also social sciences, particularly an environment management that is always in sync with its natural elements, in the form of soil surface physiography, air circulation, irrigation, crabs and mangroves, and also human culture and behavior. This is why the human – nature relations should not only be based on the concept of exploitative relations, but also appreciative relations. Nature should not only be exploited, but also appreciated,²² as a process of internalization to reach the state of *insan kamil*, along with the awareness/knowledge of God through usage and conservation of nature.

²⁰ Conservation is defined as, using natural objects or human cultural heritage, without damaging or decreasing its functions and forms, in accordance with natural or local customary laws. Soewarno Darsoprajitno. 2013. *Ekologi Pariwisata, Tata laksana Pengelolaan dan Daya Tarik Wisata*. Bandung: Angkasa. Page 91.

²¹ "Verily, your Lord is Allah Who created the heavens and the earth in six periods, then He settled Himself on the Throne; He governs everything. There is no intercessor with Him save after His permission. That is Allah, your Lord, so worship Him. Will you not, then, be admonished?" QS. Yunus: 3.

²² Cf. Nurcholis Madjid. 1995. *Pintu-pintu Menuju Tuhan*. Jakarta: Paramadina. Pages 148-149.

C. Penutup

Destructions of nature in Batu Ampar due to humans' exploitative actions continue to increase. Their instinct to depend on and exploit nature make them forget their purpose as viceroy/*khalifah* on Earth. This is despite the fact that in Islamic perspective, it is very clear that Allah through His revelations in Al-Qur'an have equipped human minds with intellectually, as a natural tool to carry out their functions as *khalifah*, including to be wise in using and controlling nature.

Massive exploitation of forests, first by massive loggings of trees for wood, then mangroves for charcoal, for fulfilling economic needs not only exaggerates humans' dependence on nature, but also insults their dignity as humans and their purpose as *khalifah*. Nature is still viewed as mere objects, while their own selves are reduced to mere slaves of capitalism derived from the ephemeral material goods, blinded from the higher purpose of nature as a tool for them to know The Creator.

The destruction of natural equilibrium due to this over-exploitation of mangrove directly affects the social and economic systems, and even their mentality towards the Divine. This solely economic-oriented exploitation leads to a destruction of the ecosystem, which in fact also damages the continuity of that economic effort. In the Islamic perspective, mangroves are just one of the many tools available for humans to reach the state of *insan kamil*. This conclusion is directed to awaken people's awareness to be more appreciative of nature. In essence, there is nothing in nature that has no use; only humanity's laziness in thinking and working that clouded those uses. This is where moral guidance and natural/environmental laws—derived from Islamic Sharia—are needed, so that humans make no mistake in carrying out their duties as *khalifah*.

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