

## **The Dayak Tribe's *Bonum Commune* Crisis: Traditional Farming Versus Modern Economic Activities**

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### **Abstracts**

This research highlights the local wisdom of the Dayak people of Kalimantan in clearing agricultural land. The tradition of farming for hundreds of years has built *bonum commune* and become an index of happiness for the Dayak community. However, local wisdom has been marginalized by a very progressive national development program, thanks to the support of technological advances and market needs. This research confronts the traditional way of Dayak communities with the modern plantation industry in managing forests. The two ways are evaluated ethically-morally, using literature studies in the perspective of ecological ethics. The research found that the Dayak custom of farming, which is full of socio-religious values, is carried out by burning a limited and measurable area of forest. After harvesting, the field area is reforested. In contrast, extensive and aggressive deforestation, without the prospect of reforestation, is carried out by oil palm plantation companies, both government and private. The current development program prioritizes oil palm plantations, and prohibits the Dayak tradition of farming. This is destroying the sociocultural life of the Dayak people that has been lived for hundreds of years. This research proposes that in carrying out macroeconomic activities in Kalimantan, government or private companies still accommodate local wisdom, and carry out locality-based development strategies. Meanwhile, Dayak communities need to adapt by carrying out microeconomic activities in accordance with applicable laws using ecological technology, while maintaining their socio-religious values

**Keywords:** science and technology progress; farming customs; Dayak tribe; *bonum commune*; environmental ethics.

### Abstrak

Penelitian ini menyoroti kearifan lokal masyarakat Dayak di Kalimantan dalam membuka lahan pertanian. Tradisi berladang selama ratusan tahun telah membangun *bonum commune* dan menjadi indeks kebahagiaan masyarakat Dayak. Namun, kearifan lokal tersebut terpinggirkan oleh program pembangunan nasional yang sangat progresif, berkat dukungan kemajuan teknologi dan kebutuhan pasar. Penelitian ini membenturkan cara tradisional masyarakat Dayak dengan industri perkebunan modern dalam mengelola hutan. Kedua cara tersebut dievaluasi secara etis-moral, dengan menggunakan studi literatur dalam perspektif etika ekologi. Penelitian ini menemukan bahwa kebiasaan berladang masyarakat Dayak yang sarat dengan nilai-nilai sosial-religius dilakukan dengan cara membakar hutan secara terbatas dan terukur. Setelah dipanen, area ladang tersebut dihutankan kembali. Sebaliknya, penebangan hutan secara ekstensif dan agresif, tanpa ada prospek reboisasi, dilakukan oleh perusahaan-perusahaan perkebunan kelapa sawit, baik pemerintah maupun swasta. Program pembangunan saat ini memprioritaskan perkebunan kelapa sawit, dan melarang tradisi berladang masyarakat Dayak. Hal ini menghancurkan kehidupan sosial budaya masyarakat Dayak yang telah dijalani selama ratusan tahun. Penelitian ini mengusulkan agar dalam menjalankan kegiatan ekonomi makro di Kalimantan, pemerintah atau perusahaan swasta tetap mengakomodasi kearifan lokal dan menjalankan strategi pembangunan berbasis lokalitas. Sementara itu, masyarakat Dayak perlu beradaptasi dengan melakukan kegiatan ekonomi mikro sesuai dengan hukum yang berlaku dengan menggunakan teknologi yang ekologis, dengan tetap mempertahankan nilai-nilai sosial-keagamaan.

**Kata Kunci:** Kemajuan Ilmu Pengetahuan dan Teknologi; Adat Istiadat Pertanian, Suku Dayak, Komunitas *Bonum*; Etika Lingkungan Hidup.

## 1. Introduction

Any development should never escape critical evaluation, especially when it comes to the order of values and codes of ethics. Development supported by technological advances makes it easier for the government to realize national development programs for all Indonesian people.<sup>1</sup> The majority of the middle and lower classes have attained a higher quality of life. However, development that is merely driven by technological advances and the needs of the global market can be a boomerang for society itself. The history of human civilization proves that every stage of technological progress is always followed by various clashes and crises: socio-cultural crisis, socio-political crisis, educational crisis, family crisis, and moral crisis.

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<sup>1</sup> Melyana R. Pugu, Yanyan M. Yani, and Wahyu Wardana, "Infrastructure Development at the Papua Border: Efforts to Ensure Human Security and Fight Illegal Cross-Border Trade," in *Journal of Indonesian Society: Indonesian Social Sciences Magazine*, Vol. 45, no. 1 (2019): 78-79.

Economic activity has a fundamental role for the human physical good, because it aims to serve human economic and material needs. Precisely because it involves humans and aims to serve the human good, economic activity requires an ethical orientation as well as moral judgment. A classical moral theologian argued that for pre-industrial and rural societies, economic activities were intended only to fulfill basic daily needs, so there was no need for criteria and norms to regulate greater economic productivity. In contrast, moral criteria and norms are needed when economic activity is to pursue levels of productivity that go beyond daily human needs.<sup>2</sup>

Man's view of himself and of the universe determines whether economic activity is good or bad. *Eudaemonism* and *utilitarianism* see worldly happiness and well-being as the ultimate goal of man. The good (*bonum*) is pleasure and happiness itself. But the so-called ultimate goal of human life is a very high set of values, so that in situations of conflict all other values must be sacrificed in order to achieve the highest value. It is not wrong for humans to base their happiness on good health and a job that provides enough livelihood. However, it is wrong to place these values in the highest and final place in human life. These values remain temporal and transitory.<sup>3</sup>

One of the deep crises caused by extreme economic activity is the environmental crisis. The crisis is exacerbated by the hedonistic and consumeristic attitude of human beings. In his book *The Fourth Industrial Revolution*, Klaus Schwab says that rapid advances in technology will provide many new skills and change the way people live.<sup>4</sup> However, development with the use of cutting-edge technology creates a new *bonum commune* crisis, especially for people who still want to maintain their local wisdom. Environmental crises are usually associated with capitalistic economic actors, who tend to increase their power and influence in providing goods and services on a massive scale. Exploitation of nature occurs without limits, especially in the form of deforestation for the giant plantation industry.

The issue raised in this research is whether massive productive activities truly guarantee the realization of the *bonum commune* and the quality of life of indigenous peoples? How can environmental ethics be applied to both progressive macroeconomic activities and the economic activities of indigenous communities? Can the micro-economic activities of indigenous communities be sacrificed for the welfare of society at large through macro-economic activities? From an ethical point of view, which of the two economic activities has the greater moral objection to the preservation of the environment and local wisdom?

The issue will be examined from the perspective of Indonesia's local wisdom, which relates to the procurement and management of agricultural land. Local wisdom is part of the diversity

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<sup>2</sup> Karl H. Peschke, *Christian Ethics: Moral Theology in the Light of Vatican II*, Vol. II, 2<sup>nd</sup> ed. (Bangalore: Theological Publications in India, 1992), 715.

<sup>3</sup> Peschke, *Christian Ethics: Moral Theology*, Vol. I, revised ed. (Bangalore: Theological Publications in India, 1991), 75, 79.

<sup>4</sup> Pugu et al., "Infrastructure Development," 78-79.

that should be respected and protected in Indonesia. The local wisdom studied is the farming tradition of the Dayak tribe of Kalimantan. This tradition contains the Dayak people's awareness of their identity, as well as their relationship with God the Creator and the environment. As an economic activity that is in direct contact with the environment, this tradition cannot be separated from ethical and moral assessments. This research aims to confront traditional Dayak economic activities with the technocratic logic that dominates the economic activities of modern society. This research focuses on the farming traditions of the Dayak Ketungau Sesaek tribe,<sup>5</sup> which can represent all Dayak farming customs, because there have been many published studies on this tribe.

This research aims to reawaken the awareness of who humans are before God and creation when conducting economic activities. In addition, this research is also intended to honor and preserve the religious and moral values of a local wisdom, which has taken root in an indigenous community.

## 2. Method

This research uses a literature study with an environmental ethics approach. Dayak farming customs are presented from first sources with a historical-cultural character. The environmental ethics that is used is derived from the human view of their relationship with nature and their Creator. Anthropocentrism sees humans as the pinnacle and center of creation, so that creation is considered a material object that is simply given to humans and subjected to their power. This anthropocentric behavior leads to the continuous exploitation of nature that triggers the destruction of nature with all kinds of disasters that result.

To balance anthropocentric ethics, this research also uses a review of the ethics of biocentrism and ecocentrism that are now starting to be widely embraced. Biocentrism asserts that all living beings, where human beings are only one part, deserve equal consideration and moral standing. As a result, humans have a moral obligation to care for all living things, including both animals and plants. On the other hand, ecocentrism emphasizes the inherent dignity and value of every component of the ecosystem, including humans, communities, habitats, and even non-living elements. The primary focus of ecocentric ethics is on ecosystems, habitats, species, and populations. Both biocentrism and ecocentrism ethics gave birth to various environmentalist organizations or movements. Both environmental ethics will

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<sup>5</sup> Dayak Ketungau Sesaek, or Ketungau Sesaek in the local dialect, is one of the Dayak sub-tribes in West Kalimantan that is mostly spread in the inland area of Sekadau Regency, especially along the Kapuas River. Why is it called Ketungau Sesaek or Sesaek? There is no specific data on the origin of the use of the words "Ketungau" and "Sesaek" in relation to the name of the Ketungau sub-tribe in Sintang District, but rather as a form of distinction with other sub-tribes (especially those in the upper reaches of the Sekayam River): Ketungau, Desa, Mualang, Iban, Seberuang, and Bugau) who are believed to have originated from the same place, Labai Lawai, Suka Lanting, near Pontianak City.

be used to criticize both the Dayak custom of farming and the massive land clearing by giant plantation companies.

### 3. Findings and Discussion

#### 3.1 The Irony of Science and Technology Development

We are now enjoying the fruits of two centuries of progressive development of science and technology (science and technology). However, the development of science and technology is largely determined by the capitalists' efforts to master everything through comprehensive and continuous experimentation, the so-called "industrial revolution". Schwab declares the latest revolution as Industrial Revolution 4.0, a new civilization that helps countries to be more developed and competitive in the economic field, and at the same time serves as a spark for industry, technology and market players to have the same vision.<sup>6</sup>

The biggest challenge at every stage of science and technology development is the human tendency to *lose control*. Scientists always aspire that the legacy of science and technology will help humans to find their quality of life. However, it is not uncommon for humans to use science and technology for unhealthy competition, by conducting trade wars in order to destroy or at least put a brake on the development and progress of other people or countries. In the United States, known as the superpower and most advanced country, the development of science and technology has not contributed to a better, calmer and safer life for its citizens, let alone for foreigners.<sup>7</sup> Living under the dominance of highly advanced science and technology is not directly proportional to a good quality of life. Science and technology are merely used to make oneself a new superpower to displace the old superpower.

The various crises plaguing the world and humanity today cannot be separated from the latest developments in science and technology. However, the main source and factor of the crisis is always the human users, when their mentality is dominated by anthropocentric modernism.<sup>8</sup> When man becomes the center of everything, his will, interests, and ambitions are automatically involved and appear dominant to control everything. Man sees everything outside himself merely as an object that must serve him with the greatest possible benefit. This economic mentality dominates the souls and minds of large capital owners, so that they continue to expand their octopus hands to control all sectors of the economy. Pope Francis criticizes the application of the logic of technocracy, which tends to force everyone to live in

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<sup>6</sup> F.X. Armada Riyanto, "Sparks of the Industrial Revolution 4.0 Philosophical Reflections on Who Man and God," in *Who is Man; Who is God*, ed. Valentinus, A. Denny Firmanto, and B.A. Pareira (Malang: STFT WS Publication, 2019), 1.

<sup>7</sup> Berthold Anton Pareira, "Where is your God? A Theology of Psalm 42-43 for People in the Age of 4.0," in *Who is Man; Who is God*, ed. Valentinus, A. Denny Firmanto, and B.A. Pareira (Malang: STFT WS Publication, 2019), 117.

<sup>8</sup> Adrianus Sunarko, *Contextual Theology* (Jakarta: Obor, 2016), 106

the same climate, rhythm and methods.<sup>9</sup> The economic mentality of capitalists tends to ignore the pattern of human interrelation with nature and each other, which is full of human, religious and ethical values. "Production for the sake of economic growth" is just a mode and tactic of the capitalists to exploit all natural resources.<sup>10</sup> The expansive character of the capitalists drowns countries in the opium of growth, which has an impact on the destruction of the system of life that has been built for a long time.<sup>11</sup>

Pope Francis once warned that the weakest point of humanity today is the development of technology that is not accompanied by human development in terms of responsibility, values and conscience.<sup>12</sup> A classic example of this lack of responsibility and morality is the humanitarian crisis caused by the mass murder of over a million Jews by Nazi soldiers at Auschwitz-Birkenau.<sup>13</sup> Not long after, the A-bombing of Japan, which resulted in immediate and sustained mass extermination due to the effects of radiation, again demonstrated the demise of morality and the value system by misusing advances in science and technology.<sup>14</sup> Continued wars and environmental crises have resulted in various types of disasters in various parts of the world. Robert Muller, an environmentalist, lists the ongoing drama of the destruction of nature: every minute 21 hectares of tropical forests are destroyed and 50 tons of soil humus are eroded by wind and water; every hour 685 hectares of fertile land are turned into desert and 60 cases of cancer attack humans due to the depletion of the ozone layer; every day 25,000 people die from lack of water, while the existing water is polluted by hazardous waste, and 10 tons of radioactive waste are discharged and scattered into the sea by nuclear user companies.<sup>15</sup>

The economic mentality amidst the opium of growth promoted by capitalists has distorted the intellectual heritage of earlier thinkers and scientists, precisely because morality, the challenge of values and responsibility are no longer upheld at every stage of science and technology development. It is only when these values are upheld that the advancement of science and technology can really help human beings achieve a quality of life that is integral and in line with their dignity.

### 3.2 Local Wisdom as *Bonum Commune*

*Bonum* means a set of virtues and values, consisting of the basic and vital elements for humans to be called or feel physically and mentally prosperous. The *bonum commune* contains

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<sup>9</sup> Francis, *Encyclical Laudato Si'*, ed. Martin Harun (Jakarta: Obor, 2015), 215.

<sup>10</sup> *Ibid.* 218.

<sup>11</sup> Y. I Wayan Marianta, "The Roots of the Environmental Crisis", *Studia Philosophica et Theologica* 11, no. 2 (2011): 231-53.

<sup>12</sup> Francis, *Laudato Si'*, 216.

<sup>13</sup> Low Choo Chin, "Hitlerism, Anti-Semitism and Holocaust Interpretation." *History: Journal of History Department*, Vol. 28, No. 1 (2019): 34.

<sup>14</sup> Kusniawati, Dhianada Salsabila Lugo, and Ida Susilowati, "The Social and Security Impact of the Hiroshima and Nagasaki Communities After the Dropping of the Atomic Bomb in 1945," in *Journal of Legal Research*, Vol. 3, No. 4 (2021), 608.

<sup>15</sup> Surip Stanislaus, *Managing and Maintaining the Garden of Eden: Biblical Inspiration for Ecological Care* (Yogyakarta: Kanisius, 2019), 13.

an index of happiness for all levels of society.<sup>16</sup> On the commemoration of the "International Day of Happiness" in 2023, Kompas Daily published the following review:

"Countries around the world are competing with each other in pursuing economic growth to improve the welfare of their citizens. However, high income, good education and high quality health services do not necessarily make people happy. People's happiness is influenced by many things, not just the economy. [...] Provinces with high Human Development Index (HDI) have relatively low happiness scores."<sup>17</sup>

According to the review, the happiness index has a more complex scope than the development index. In the perspective of the link between collective welfare and individual welfare in the *bonum commune*, and referring to the opinion of Turro S. Wongkaren, the article asserts that the happiness that Indonesian society aspires to, and which is in line with the Preamble of the 1945 Constitution, is collective happiness. However, collective happiness is vulnerable to manipulation by the interests of elite groups or the market.<sup>18</sup>

A prosperous life can still be enjoyed by indigenous people who are very strict in applying customary norms and live by keeping a distance from modernization, for example the Inner Baduy tribe. They live a quiet life without lusting after all desires. The ecological way of life is highly upheld, so the residents are prohibited from using soap, shampoo, and toothpaste which are feared to pollute nature. They limit themselves in clearing agricultural land and settlements. Even though they have the financial ability, Baduy residents are not allowed to open fields in forest areas, without permission from customary leaders. Honoring nature is the philosophy of life passed down by the ancestors, namely "*long should not be cut, short should not be connected, mountains should not be destroyed, valleys should not be destroyed*".<sup>19</sup>

Restu Gunawan raises the theme of integral and comprehensive Indonesian development as a cultural commitment, not just physical and economic development driven solely by scientific and technological advances. Quoting Arnold Toynbee, he writes:

"There are four layers in building civilization. The outermost is the pillar of science and technology, the pillar of aesthetics, the pillar of moral ethics, and the pillar of spirituality. In his analysis, Toynbee said that no matter how strong the outer three pillars are, without a good spiritual foundation, the nation will collapse. In today's world, the four pillars must work together and not leave each other out."<sup>20</sup>

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<sup>16</sup> M.A. Anggorowati, "Memahami Indeks Kebahagiaan" (Kompas.id, 22 Januari 2022) <https://www.kompas.id/baca/bebas-akses/2022/01/20/memahami-indeks-kebahagiaan>. Dijelaskan bahwa Indeks Kebahagiaan terbentuk dari tiga dimensi utama, yaitu (a) dimensi kepuasan hidup, (b) dimensi perasaan dan (c) dimensi makna hidup.

<sup>17</sup> "Blissful Development," *Kompas*, March 20, 2023, 1, 19.

<sup>18</sup> *Ibid.*

<sup>19</sup> Tatang Mulyana Sinaga, "Baduy, Serene in the Embrace of Nature," *Kompas*, March 20, 2023, 9.

<sup>20</sup> Restu Gunawan, "The Politics of Indonesian Identity," *Kompas*, October 29, 2022, 6.

Next, based on Toynbee's framework, Restu considers its application to development in Indonesia:

"Indonesia must develop technology, science and aesthetics; but it must be based on strong religious values and high moral [*sic*] ethics. [...] Development that only pursues high achievements in science and technology, but does not take into account natural ecosystems, culture, and other supporting infrastructure, will only result in conflict and poverty in the future. For this reason, inclusive and sustainable development that takes into account the culture of its people will better guarantee a better future."<sup>21</sup>

Based on the close link between *bonum commune*, the happiness index, and the fundamental position of high religious and moral values, this research examines the Dayak people of Kalimantan, who apply spiritual and ethical values in building a prosperous life through their farming tradition.

### 3.3 Dayak Farming Tradition

The Dayak tradition of farming is rooted in their interrelationship with forests and nature. In Dayak human thinking, the forest is a subject that sustains and even determines the survival of life.<sup>22</sup> The forest as a milestone in the birth of Dayak human philosophy shapes the identity and characteristics of the Kalimantan Dayak. From there, ideas, values, norms, and morality are born that become the foundation of life.<sup>23</sup> For example, the Kanayatn tribe, one of the Dayak sub-tribes, has a myth about the occurrence of the universe. It is said that at the center of nature there is a "coconut tree whirlpool" (*pusat ai' pauh janggi*) that is the origin of life. From there everything was created and to which everything will return.<sup>24</sup> According to the Dayak Kenyah tribe, humans were created by a female deity named Bungan Malan from the Aran Wood (fig tree), due to the wind coming from one of the nicks in the wood.<sup>25</sup> Myths like this shape the wisdom of the Dayak people in understanding the universe, particularly the forest, which is essential for their survival.

Dayak people have a harmonious relationship with nature, treating it like a brother and friend. From this relationship they interpret and organize their entire daily lives. The crowning

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<sup>21</sup> *Ibid.*

<sup>22</sup> Dhunung Mei Fera, Dyah Ayu Ritma Ratri, Ria Ishardanti, "Pengelolaan Hutan Berkelanjutan Masyarakat Dayak," *ESGSB: Environmental, Social, Governance, and Sustainable Business* 1(1) 2024: 1.

<sup>23</sup> *Ibid.*, 4.

<sup>24</sup> Fridolin Ukur, "The Religious Meaning of Surrounding Nature in Dayak Culture," in *Dayak Culture: Actualization and Transformation*, ed. Paulus Florus et al. (Jakarta: LP3S-Institute of Dayakology Research and Development, 1994), 76.

<sup>25</sup> *Ibid.*



of Kalimantan as one of the "lungs of the world"<sup>26</sup> was not only aimed at the 40.8 million hectares of forest at that time, but also at the way the Dayak people maintained and managed the forest through the customary farming traditions practiced for centuries.

The Dayak tradition of farming is often misinterpreted by many people, including the government, as a crime of destroying nature. The tradition of burning forests was accused of being the mastermind of forest destruction, which then triggered the issuance of Government Regulations on sedentary farming.<sup>27</sup> The tradition of farming is not just an economic activity. For the Dayak tribe, farming is a traditional ritual, which is carried out not based on economic motivation, but in the spirit of courtesy towards the ruler of the universe, namely *Piakan Puyang Guno* or *Jubata*.<sup>28</sup>

There are ten traditional rituals that must be performed in order in the traditional procession of farming. *The first* is the *Mangul Tanah* ritual when clearing land for farming. This ritual is usually performed during June, at 06:30-07:30. The purpose is to listen to the approval of *Jubata*, which is conveyed through the chirping of the *Papau* bird as its messenger. For three days the farmer is strictly forbidden to visit the location of the field that has been approved by *Jubata*. In a calm state with a position facing the direction of sunrise, the farmer must recite this mantra:

"Sok, duo, tigo, mpat; salam alaikum Nabi Adam<sup>29</sup> *Piakan Puyang Guno. Nuan te mpu tanah, mpu ampah, mpu kayu, mpu batu, mpu aik, mpu sungai, mpu tawang, mpu pelunang, mpu letung, mpu tanakung, mpu lempok luah mapan rempong kayu pengawan. I asked, I asked, I surveyed the land for six months and ten days and planted mania rice, merinkai rice, dayok rice, senuok rice, pulut rice, benumut rice. Mali padah nuan papah petebang tapang rawok kayu tumbang. Tuk ngau beumo padi suruh bagas, buah berenas, ngalah rebok, ngalah rangaku, ngalah ujan, ngalah kemarau, ngalah rumput, ngalah serapau. Muo diketau, belakang bedau muo diamik, belakang bisik, muo diundang belakang nyurung. Lepasku nginjau enam bulan sepuluh hari tanah tuk suruh pulang asal mula menjadi tebasas, suruh ruwok ketis, suruh pusan dijari seeds*".<sup>30</sup>

[Adam] "One, two, three, four. Excuse me Prophet Adam Lord God. You are the ruler of land, wood, stone, water, rivers, swamps, water basins, lakes, valleys, and

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<sup>26</sup> Muhammad Gilang Ramadhan, Ayuna Santika Putri, Andang Kurniawan, Amir Mustofa Irawan, "Prioritas Arah Penempatan Titik Pengamatan Kecepatan Vertikal Di Kalimantan Menggunakan Analisis Anisotropi," *Jurnal Meteorologi Klimatologi dan Geofisika* Vol. 5 No. 3 (2018): 1.

<sup>27</sup> Sandra Moniaga, "Dayak Community Knowledge as an Alternative in Handling Natural Resource Damage Problems in Kalimantan: An Urgent Need." In *Dayak Culture: Actualization and Transformation*, ed. Paulus Florus et al. (Jakarta: Grasindo, 1994), 103.

<sup>28</sup> Blasius Kunjan and F.X. Pinson, *History, Customs and Customary Law of Dayak Ketungau Sesaek* (Pontianak: PPSDAK Pancur Kasih, 2005), 60.

<sup>29</sup> The language in this passage resembles the traditions of Samawi religions. Further investigation into the origins of these words is needed.

<sup>30</sup> Kunjan and Pinson, *History of Customs*, 61

Agatis wood. This I beg and ask, I borrow this land for six months and ten days to farm, plant mania rice, meringkai rice, Dayak rice, senuwok rice, pulut rice, benumut rice. If there is abstinence, tell me to cut down the wood trees quickly. This is just for farming, so that the rice grows lushly with fleshy grains, beats the former woodpile that was cut down, beats the rain, beats the drought, beats the grass, and beats the weeds. After I have cultivated this field for six months and ten days, this land will be turned back into forest."]

The second is the *Adat Menebang* ritual, where the farmers must focus primarily on the chirping of evil birds. If evil birds are heard chirping, the farmer must perform the *Nebang Nacak* ritual. The owner of the field must make a pair of human statues from Sumpak Wood, and fulfill some customary requirements: one chicken, three bottles of tuak, a bowl of rice, an egg, *pulut pansuh* (boiled lemongrass), and some *gelamai* flour. The *Nebang Nacak* ritual is meant to purify or cleanse the field from bad things. Afterward, the *Menebang custom* may continue

The third is the custom of *burning the field*. Beforehand, the farmer must hold a *fire* ritual, right in the middle of the field location. Some of the ritual requirements that must be met are one black native chicken, a jar of tuak, a bowl of rice, a chicken egg, a stick of *pulut pansuh*. The purpose is to ask for permission and at the same time ask *Piakan Puyang Guno*, so that the field is completely burned down.

The fourth is the *Menugal Ladang* custom. Beforehand, the owner of the field must ensure that the location is completely clean, without any piles of wood left over from burning or animals that might die from burning. Afterward, the owner of the field must perform the *Mudas Umo* ritual or a feast together. In this ritual, the side dishes from sacrifices, such as pigs, dogs or chickens, must first be given to the rice seeds and other seeds that will be planted. This ritual is held as a symbol to ask for permission and to repeat the promise that the land will only be borrowed for six months and ten days for farming, and will then be returned to the forest.

The fifth is a three-day abstinence ritual by the owner of the field. He is forbidden to go or cross the location of the field that has been planted with seeds. If he deliberately passes by or comes to get something at the location, he must be punished by custom by preparing eight traditional bowls, one *bushel* of rice, one chicken, one chicken egg, a piece of iron, an empty pot, and a pot of *tuak*.

The sixth is the *Adat Mudas* (grazing the fields) procession, when the seeds have grown to above ankle height after a few weeks. The host must prepare a *gantang of pengkeras rice* (a container for blessing rice), a *penawan*, five chickens, two *renti* (pieces) of pig, three pots of *tuak*, one dog, five segments of *pulut pansuh*, makeshift flour, a *ketawak* (gong), and others. This ceremony should not be held in any place, but in the place where the person first heard the sound of the evil bird during the procession of *Adat Menebang*.

*The seventh* is the *Meribu Umo* ritual (blessing of the fields). The crops in the fields have risen, giving hope for a good harvest. This obligatory ritual is performed by wagging a native chicken over sacred objects. The chicken is then slaughtered and its blood sprinkled on the sacred objects. The aim is to ask the ruler of the land to protect the crops from pests.

*The eighth* is the *Nyumok* or *Matah* ritual at the time of harvesting. *Nyumok* or *Matah* means to knock the first grains of rice off the stalk using the fingers, then scattered to the ground, with the intention of offering the first yield to *Piakan Puyang Guno* or the land ruler spirit who has contributed to giving permission to farm and protect plants from pests.

*The ninth* is the *Ngetau Padi* ritual. This procession involves putting the first paddy into the barn by hanging it. To accompany the procession, a native chicken, a pot of tuak, a bowl of rice, a chicken egg, and a stick of *pulut pansuh* must be provided.

*Tenth* is the *Semengat Padi* ritual as the final stage of the farming tradition. Dayak people believe that while working in the fields, human spirits stay there, and the spirits in the fields also stay with humans at home. Therefore, at the end of the farming tradition, both spirits must be returned to their respective places of origin. If this is not done, it is believed that family members will experience prolonged illness and even death. This procession is carried out in the form of a traditional ritual complete with all the traditional needs.

This series of rituals shows the harmonious relationship between Dayak people and the ruler of nature in farming activities. They act as active labor subjects, but submit themselves to the ruler of nature by committing to the oath they have taken to reforest the fields they have taken from the forest.

### 3.4 Dayak Farming Tradition in the Review of Environmental Ethics

The Dayak people's centuries-old tradition of farming<sup>31</sup> by burning needs to be studied and assessed in terms of environmental ethics.

*First*, the Dayak farming tradition is still quite in line with environmental ethics, namely biocentrism. This farming method has proven to provide good harvests and sufficient livelihoods for all Dayak people.<sup>32</sup> In addition, they still respect the forest as their habitat in a harmonious relationship. Nature and forests surrender themselves to humans not because humans by nature deserve to be pitied and served, but because humans are sentient beings, who will utilize nature with common sense and with care. From his side, man needs nature as his life support, not primarily because he sees nature as a storehouse of food that can be exploited at will, but because he sees and treats it as a brother, who must be treated as man treats himself.

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<sup>31</sup> Romanus Piter, "Makna Kearifan Lokal Tradisi Bauma Batahutn Suku Dayak Kanayatn di Kalimantan Barat," *Balale': Jurnal Antropologi*, 4(1) (2023): 3.

<sup>32</sup> *Ibid.*, 4.

This caring attitude is shown by clearing fields in high livelihoods.<sup>33</sup> The caring attitude is also manifested in the act of reforesting the field area after the harvest period. Reforestation is carried out as a whole by planting fruit trees, various perennials, and wild trees.<sup>34</sup> The intention is for forest animals to regain their habitat and food. This attitude of respect and care for nature and others is easily ignored in modern economic activities, which are merely production-oriented to meet the needs of the global market through exploitative technology.

When determining the location for farming, the Dayak people only take a small part of the forest area. The location for farming is generally only 2-3 hectares. The size of the field is measured based on the weight of the seeds to be planted. The measurement they use is called a kulak, which is a wooden and tubular measuring instrument used to measure the weight of rice seeds and also the weight of rice. The weight of one kulak is equal to 2.5 kg. So, a 2-3 hectare site requires approximately 10-15 kulaks of rice.<sup>35</sup> This area is very small compared to the area cleared by the palm oil company.

Unlike what palm oil entrepreneurs do, the Dayak community never burns their fields simultaneously.<sup>36</sup> If in one village each family has a field, then the burning process is carried out in rotation, similar to the arisan system. Families who get their turn to burn will be assisted by other families who have not had the opportunity. All villagers are obliged to help each other. After the location of the field is determined and ready for burning, the land around the field 2-3 meters wide from the surrounding forest boundary is freed and cleared. It is in this area that all villagers go around and stand by with all their traditional tools to put out any fires that might spread beyond the designated boundary. This custom is done to minimize the possibility of fire spreading, and is also a form of communitarian solidarity. Furthermore, one family's field should not be next to another family's field, but should be separated by a certain distance from the forest. This is to prevent the forest from being deforested on a large scale. This centuries-old tradition has never been recorded as the cause of widespread forest fires with prolonged haze. On the contrary, it has been an integral part of the coronation of Kalimantan's forests as one of the world's lungs.

Now, ecological insights are starting to be intensified in every development program, because natural disasters are increasingly frequent with increasingly massive impacts. In fact, the Dayak community has long implemented an environmentally friendly farming process, where there are prohibitions and restrictions on using all types of chemicals or pesticides, namely chemicals that cause environmental pollution, both air, water and soil, which are directly related to other living communities.<sup>37</sup> In order for rice plants and all kinds of vegetables

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<sup>33</sup> Piter, "The Wisdom of Dayak Relationality: Adil Ka'Talino, Bacuramin Ka'Saruga, Basengat Ka'Jubata," *Mysterium Fidei: Journal of Asian Empirical Theology*, Vol. 2, No. 3, (2024): 212.

<sup>34</sup> Cf. Piter, "Makna Kearifan Lokal," 19.

<sup>35</sup> Gabrielle Ernesto, Agung Hartono, and Dian Ahmad, "Exploration of Ethnomathematics in the Beruduk Tradition of the Dayak Village Tribe of Sintang Regency," in *Khatulistiwa: Journal of Education and Learning* Vol. 11, No. 6 (2022): 17-28.

<sup>36</sup> Cf. Piter, "Makna Kearifan Lokal," 12.

<sup>37</sup> Abida Arif, "The Effect of Chemicals on the Use of Environmental Pesticides," in *JF FIK UNINAM*, Vol.

to thrive, the Dayak people utilize the properties produced by the remains or traces of burning. That is why when performing traditional farming rituals, they want to make sure that the field site has been completely burned down.

*Secondly*, for the Dayak people, natural resources are vital to their entire way of life. However, this should not be understood narrowly in terms of the never-ending need for food. Instead, the existence of nature is seen in close connection with the communitarian, cultural, belief and even sociopolitical values of the community. When nature is seen only as a satisfier of economic needs, that is when it is not treated as a friend and relative. The farming custom of the Dayak Ketungau Sesaek tribe shows the harmonious relationship between nature and humans. For them, farming is an expression of identity, which prioritizes obedience to *Jubata* as the owner of the forest, a polite attitude towards nature, as well as responsibility and commitment to the promise to return the land to its original condition after being used for 6 months and 10 days.

*Third*, the farming customs of the Ketungau Sesaek Dayak clearly demonstrate a work ethic that respects nature and values handwork. In this way of working they find the meaning of life, as well as their dignity as human beings. The ten traditional rituals of farming show that every element of life is respected and nurtured. They learn from nature to develop a caring attitude. The Dayak Ketungau people show that working and caring for nature and each other overcomes the negative side of anthropocentrism, which sees everything outside humans as "other" to be exploited and controlled.

*Fourth*, with regard to the accusation that the Dayak community is the mastermind of forest destruction, this stems from the great fires that occurred in 1982-1983 in Kalimantan. The tragedy occurred at the same time as the Dayak people were farming. They themselves were shocked and concerned by the event. The real cause of the tragedy was never fully investigated. To this day, the Dayak people suspect that the fires were planned systematically and structured by capitalist forces, then the Dayak people were scapegoated as the masterminds of the fires. In fact, forest burning is done in a very limited way and not carelessly, because it is impossible for the Dayak people to destroy their own habitat.

*Fifth*, it cannot be denied that most of the development process for public welfare is controlled by capitalists. They continue to try to control nature by applying technocratic logic, while convincing the Dayak people to end all activities that smell of local culture, including their farming customs. To this end, the capitalists make promises that if they hand over land to them, indigenous people will get a better quality of life: good road access and employment in companies with wages like civil servants. The capitalists believed that if the tradition of farming was preserved, the Dayak people would not sell their land for oil palm plantations. However, reality has not lived up to the promise. Many Dayak people regret their decision to sell their ancestral lands to the company. In the end, sectoral and partial profits are enjoyed by

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3, No. 4 (2015): 136.

a group of capitalists, while small communities are marginalized and bounced in their own habitat.

### 3.5 The *Bonum Commune* Crisis Due to the Prohibition of the Farming Tradition

The tragic forest fires prompted the government to issue regulation no. 28 of 1985 on Forest Protection. Article 10, paragraph (1) of the regulation stipulates that every person is prohibited from burning forests except with legal authority. Furthermore, article 18, paragraph (1) stipulates that the activity of burning forests as stipulated in article 10, paragraph (1) is a criminal offense punishable by imprisonment for up to 10 years or a fine of up to Rp. 100 million.<sup>38</sup> It is unclear on the implementation of the prohibition, whether or not Dayak indigenous peoples are counted in the clause "who have legitimate authority" on the basis of local wisdom. Thus, traditional Dayak farming activities were officially banned, and some community members were arrested on charges of forest burning. All they were doing was the traditional ritual of farming, which does involve land burning, but in a very limited and measured way. It is unfortunate that the ban was not based on a comprehensive study that took into account local culture and customs.<sup>39</sup>

With the prohibition of traditional farming methods, the Dayak tribe's traditions, cultural foundations, communal life and local wisdom have all been eroded. They experienced confusion and difficulties in organizing their lives. Some have adjusted by becoming small-scale independent oil palm farmers. However, not a few are forced by the situation to become construction coolies or oil palm plantation laborers. The Dayak people, who are not greedy in managing nature and land, are now forced to destroy rivers to pan for gold and other natural resources in them. Dayak people who actually know the limits in managing forests and cultivating land, now join in cutting down trees or selling their land to oil palm companies. Practically, they are participating in the exploitation of nature and forests, and objectifying nature together with the giant plantation industry. They are both victims and spectators of the economic forces that are blindly exploiting Kalimantan's forests.

Criminality widespread among the Dayak community as a result of limited economic resources and the absence of employment, which was previously available in the custom of farming. It is not uncommon for members of the Dayak community to resort to immoral acts in order to obtain money, including murder, robbery, plunder, corruption, and others. With the eradication of farming customs, it is feared that the Dayak people will lose their centuries-old work ethic, which upholds the value of human labor and care for nature. In fact, their farming custom is a simple but meaningful expression of human consciousness about their dignity as

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<sup>38</sup> Government Regulation No. 28 Year 1985 on Forest Protection, <https://peraturan.bpk.go.id/Home/Details/64604/pp-no-23-tahun-1985>, accessed October 21, 2023.

<sup>39</sup> Katarina and Ruat Diana, "Social Theology Issues in the Dayak Motto and the Handling of Peladang Cases in Sintang District, West Kalimantan," in *The Messengers: Journal of Theology and Christian Education*, Vol. 1, No. 1 (2020), 39.

intelligent beings. Dayak people not only know what their purpose in life is, but especially know how they should make their lives meaningful for all beings around them.

With the eradication of the farming tradition, it is feared that another traditional asset called *Gawai Dayak* will also be lost. This traditional ceremony is an integral part of the farming tradition itself. *Gawai Dayak* is a distinctive feature of the Dayak tribe, and is one of the local wisdoms of the archipelago that should be preserved.<sup>40</sup> For example, in the Taman Dayak tribal community, *Gawai* is a large traditional ceremony, which is carried out once a year based on the willingness and ability of community members. Only families mourning the death of a member are excluded from participating in the *Gawai* ceremony.<sup>41</sup>

This traditional ceremony is an expression of gratitude to *Piakan Puyang Gunao* for the new rice that has been given to the Dayak people. This expression of gratitude is marked by entertaining every guest who comes with the best meal without paying. For the Dayak community, the *Gawai* custom is the most awaited event by both the host and the guests who will visit. For the host, the most happy and very grateful is the number of guests who visit his house. The value of brotherhood or kinship in the community and the spirit of sharing with others are highly emphasized. Therefore, if the custom of farming is eliminated, it will automatically lose the ceremony that is so special for the Dayak people, which is full of religiosity and the value of togetherness.

The government has updated its legislation on forest utilization through Government Regulation No. 23 of 2021 on the Implementation of Forestry. Unlike the old regulation, which had a negative and restrictive tone, the new regulation is accommodative of local wisdom, customary law communities (MHA) and customary forests. In Article 1 on General Provisions, no. 73, local wisdom is defined as noble values that apply in the life of the local community, among others, to protect and manage the environment and natural resources sustainably. Article 236 stipulates that customary law communities are allowed to manage forested areas with clear boundaries according to their local wisdom. However, according to Article 235, the customary law community must (a) be in the form of a *paguyuban*, (b) have a management institution in the form of its customary ruling apparatus, (c) have a clear customary jurisdiction, (d) have institutions and laws, especially customary sanctions that are still respected, and (e) still collect forest products in the surrounding forest area to fulfill their daily lives.<sup>42</sup> There has not been sufficient study on the implementation of this regulation, namely the extent to which the Dayak tradition of farming using the limited burning method is accommodated and can be preserved in the implementation of the regulation.

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<sup>40</sup> Suparno et. al, "Maintaining the Existence of the Archipelago's Local Culture in the Midst of Globalization Through the Preservation of the Dayak Sintang *Gawai* Tradition," in *Journal Pekan: Journal of Civic Education*, Vol. 3, No. 1 (April 2018), 55.

<sup>41</sup> J.U. Lontaan, *History of Customary Law and Customs of West Kalimantan*, 1st ed. (West Kalimantan: Regional Government of West Kalimantan, 1975), 523.

<sup>42</sup> Government Regulation No. 23 of 2021 on Forest Management, in <https://peraturan.bpk.go.id/Home/Details/161853/pp-no-23-tahun-2021>, accessed October 21, 2023.

Reynaldo Triwibowo explores the current experience of the Dayak community after the abolition and prohibition of farming traditions. In 2021, as elsewhere, the Dayak people in rural Central Kalimantan were introduced to the *food estate* program, a new land expansion program for the creation of food barns, in order to overcome the global and national food crisis. The program imposes a new way of planting, which involves flattening the land using heavy equipment to turn fields into rice paddies for rice cultivation. To become a rice field, the leveled land must be loosened by plowing. For this reason, what the Dayak people need to learn is water management. Because there are no irrigation channels, they have to use the tides of the nearest river. Another problem faced is access to rice fields that are very far from residential areas. The use of motorized wooden boats not only takes a long time, but also burdens farmers' living costs. A new culture and way of farming in the form of rice fields that has not been mastered, not adapted to the existing natural conditions, and without assistance in the field, causes repeated crop failures. Reynaldo observed in the field that when harvest time did not bring happiness, the old tradition was seen by the Dayak people as a savior. However, since traditional farming has been banned, the indigenous people have been forced to take tactical steps to survive, namely planting vegetables, fruits, cayenne pepper, cassava, tobat, bananas and watermelons on the rice fields, and making fish ponds on their land. Some of the produce is consumed by themselves, and the rest is sold at the market. Reynaldo ended his review with the words: "Adaptation is absolutely necessary for farmers to deal with various changes. However, if farmers have to bear it alone and lose money repeatedly, I don't know how long they will have to console themselves."<sup>43</sup>

### 3.6 Challenges of Modern Economic Activities in Cultural Development in Kalimantan

Indonesia has been busy lately dealing with protests by the European Union against its plantation products, especially palm oil and derivative products. The EU law, which takes effect on May 17, 2023, states that any exporter of products targeted by the law must submit due diligence and verification documents. For this reason, exporters must guarantee that their products do not come from deforested areas from January 1, 2021 onwards.<sup>44</sup> Regardless of the Indonesian government's objections to the discriminatory policy, the EU regulation conveys a relevant and urgent ethical message that development and trade must be ecologically sound, free from deforestation and forest degradation. The regulation certainly targets large oil palm plantation companies, both public and private. The regulation does not apply to the Dayak tradition of farming, which has already been banned through government regulations. Even if the Dayak tradition of farming is still allowed to be practiced, the EU law still does not apply to this tradition, because even though there are logging and burning activities, the Dayak people do not carry out massive deforestation, but still carry out post-harvest reforestation activities.

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<sup>43</sup> Dionisius Reynaldo Triwibowo, "Dayak Farmers' Last Resort in the Face of Harvest Failure," in *Kompas*, September 24, 2023, pp. 4.

<sup>44</sup> "RI Protests EU Discrimination Again", *Kompas*, May 26, 2023, 4.



In addition, their farming tradition does not plant oil palm, but rice. Meanwhile, the oil palm plantation industry carries out extensive and permanent deforestation without reforestation.

In a public discussion titled "Koentjaraningrat's Thoughts on Indonesian Humans and Current National Problems", Semiarto Aji Purwanto emphasized that we need to prioritize locality-based development strategies, so as to produce something inclusive. The diversity of society and the vastness of Indonesia require development that is oriented towards local interests and involves local socio-cultural aspects. For this reason, there is no need for one grand strategy or central institution for development in each region. The concept of development at the national level is quite general. Instead, local communities are invited to participate directly in the direction and planning of their local development.<sup>45</sup> On the same occasion, Robert argued that in facing the challenges of climate change, the old development concept of the New Order model must be abandoned and changed, which no longer uses a centralized *top-down* approach, but takes into account the cultural aspects of the local community.<sup>46</sup>

The *food estate* program promoted by the government in Kalimantan today also has complex difficulties. The increasing conversion of agricultural land in Java has led the government to direct the program to Kalimantan, to empower suboptimal land there for the development of agricultural production centers. According to Suwidi, there are many aspects of technical and economic feasibility that need to be seriously considered due to the high risk of failure, including primary, secondary and tertiary irrigation channels, special management related to production improvement methods, adaptive seed selection, production facilities assistance oriented to investment in agricultural business models. The introduction of any agricultural business model in Kalimantan must place and make farmers the subject of change. It is not uncommon for asset concentration and pricing to slowly fall into the hands of a handful of players, thus pushing farmers to become objects in the production cycle and market mechanism. Agricultural business models that do not guarantee improvements in the quality and quantity of production and the involvement of groups at the heart of governance changes will only continue to victimize farmers and ultimately threaten the sustainability of production.<sup>47</sup>

Any culture and custom is inherently dynamic and dialogical, able to adapt to the environment and reorganize itself when faced with external elements that might disrupt the fabric of society. However, the process and its dynamics should not lead indigenous peoples to abandon all old traditions and institutions and replace them with new ones. Customs and culture are not like clothes that are simply attached and easily removed or replaced, but rather a system

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<sup>45</sup> "Locality-Based Strategy to Address Community Issues," *Kompas*, June 10, 2023, 1.

<sup>46</sup> *Ibid.*, 15.

<sup>47</sup> Suwidi Tono, "Mitigating the New Food Barn," *Kompas*, August 6, 2020, 6.

of values and wisdom that has become an integral part of the indigenous people's personality. Therefore, every development step and decision involving the latest science and technology in Kalimantan needs to be based on a comprehensive learning process that takes into account local culture and wisdom. This is because the human happiness index is not measured solely based on economic capacity, but also based on mindsets, patterns of action, and tastes rooted in local culture and wisdom. Had the regulation formation process been preceded by an intellectual and sociocultural discussion forum, a one-sided regulation that generalizes all problems and solutions would not have been born. Some forestry experts even believe that the Dayak community's cultivation system does not damage the forest and is not anti-development, considering that the tradition is hundreds of years old and has not depleted Kalimantan's forests.

#### 4. Conclusion

The tradition of Dayak farming in the middle of Kalimantan's tropical forests is one of the local wisdoms that deserves to be preserved, especially the socio-religious and moral values contained in it. The most important socio-religious value is that the forest is treated as a friend and entrusted by God the Creator. Land clearing always begins with a request for permission from the Creator. Dayak people do not place themselves above or at the center of creation to dominate it, but as servants and stewards of forests and nature. Another moral value is that land clearing is carried out with high livelihoods, in a measured area, and for a limited time, in line with the basic needs of everyday people. The environmental ethic is realized by reforesting the field area its original condition. This is a striking differentiating element compared to what is done by large plantation companies, which take market needs and global business competition as the first and foremost yardstick.

The Dayak custom of farming, practiced for hundreds of years, has created a certain ecosocial order, which is part of the local wisdom itself. Land clearing through massive deforestation by large palm oil companies, accompanied by a ban on local farming customs, has killed the socio-religious and sociocultural life of the Dayak tribe. The *Gawai* custom, which was previously a vital energy that stimulated the lives of all community members, has disappeared, resulting in criminal acts that never existed before. The happiness index of life decreases with the loss of local wisdom contained in the farming tradition.

On the other hand, the Kalimantan forest is not an asset that is only owned and managed exclusively by the Dayak indigenous people, but is an asset of the entire nation and the unitary state of the Republic of Indonesia. The land of Kalimantan and all that it contains belongs to the Indonesian state and nation, so it also needs to be utilized as widely as possible for the welfare of all Indonesian citizens, including the Dayak indigenous people themselves. However, this research shows that the macroeconomic activities of Kalimantan's forests should not completely shut down the microeconomic activities of indigenous communities with their

local wisdom. Just like a modern market should not kill the traditional market. There must be a certain balance and compensation, so that indigenous peoples can still live and carry out economic activities according to their local wisdom. The 2021 Government Regulation has accommodated local wisdom in the implementation of forestry for the sake of development and the welfare of many people. However, it is necessary to monitor the implementation of the commitment to the preservation of local wisdom. The *food estate* program needs to be implemented by making local farming communities the subject of agricultural business change, not as a production subsystem within or under a large corporate ecosystem. Furthermore, the adaptive capacity of the Dayak community needs to create new socio-cultural breakthroughs, in order to continue to be able to live out traditional socio-religious and communitarian values in the midst of modernizing the agricultural business.

The *green economy* now a necessity for every human economic activity. Large-scale plantation companies, whether public or private, must be concerned with ecological issues in carrying out macroeconomic activities. The same commitment must also color micro economic activities based on families or indigenous communities. Some forms of ecological commitment are maintaining and preserving the extent and diversity of forests (*zero deforestation*), and not clearing agricultural land by burning (*zero carbon emissions*). *Reforestation* has been taught by the Dayak community on a small scale. However, for the Dayak indigenous people, clearing land by burning is no longer tolerated, even in a measured and limited area. Perhaps the flames can be contained from spreading, but the resulting smoke cannot be prevented from spreading and creating air pollution in other areas. The elimination of the burning method of farming should not be seen as the destruction of the entire indigenous socio-cultural fabric. Modern technology has provided ways and tools to clear forest land without burning it. Plantation companies and Dayak farming activities must share the same ethical stance to avoid progressive deforestation and forest degradation. The government, which oversees all economic activities of citizens, both corporations and indigenous peoples and individuals, needs to accommodate local wisdom-based farming and farming methods, especially those that contain religious, ethical and sociocultural values that have built the *bonum commune* and happiness index of indigenous peoples.

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