



## Potential application of Batang Garing cultural values of Dayak tribe in Orangutan conservation

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### ABSTRACT

**Background:** This is intended to describe the Batang Garing symbol of the Dayak Ngaju tribe in Central Kalimantan as a container for preservation. From the previous study mentioned about Batang Garing, environmental consciousness, this study attempts to identify the cultural values of the Batang Garing tribe in the life of the Dayak tribe and to seek opportunities to apply the cultural values of the Batang Garing Dayak tribe in Orangutan conservation. **Methods:** This study using qualitative techniques is used to measure rehabilitation and assess the contribution of rehabilitation to conservation. **Findings:** It can be concluded that the Batang Garing concept is in harmony with the idea of Orangutan conservation. The construction of meaning that is carried out provides space for collaboration between local values and modern values in the conservation agenda, it is hoped that this alignment will facilitate the involvement of indigenous peoples in harmony with Orangutan conservation so that they play an active role in conservation because there are several overlapping values. **Conclusion:** The constructs provided are expected to be useful in forming universal knowledge/which can be understood by the wider community, including policy makers, namely the Government, as well as policy observers, both academics and practitioners regarding the agenda of forest conservation. **Novelty/Originality of this Study:** The novelty of this study lies in its exploration of the potential application of the Dayak Tribe's Batang Garing cultural values in Orangutan conservation. This research uniquely combines indigenous wisdom with modern conservation efforts, aiming to foster community involvement and promote sustainable natural resource management.

**KEYWORDS:** Batang Garing; conservation; Dayak tribe; Orangutan.

### 1. Introduction

Environmental protection and management is an effort to give birth and promote the quality of life of oneself and other living things naturally and sustainably. Nationally, mutually agreed regulations govern environmental management for individuals or community organizations (He et al., 2020). These regulations are packaged in several ways, including laws that must be understood and followed simultaneously. The Indonesian government has enacted national laws for environmental protection and management in the form of laws and government regulations. This restriction is outlined in local regulations at the local level. Meanwhile, specific matters are expressly stipulated in Ministerial Decrees or Ministerial Regulations relating to the unique challenges of the region (Munawaroh et al., 2022)

Humans have functional interactions with the environment that are dependence and mutual influence, which affect the entire ecosystem. The environment that is an ecosystem

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has social, cultural, economic, and geographical characteristics, as well as different qualities and carrying capacities (Gbedomon et al., 2016). Human actions have an impact on the carrying capacity of the environment. Exploitation activities that do not pay attention to environmental sustainability will have a detrimental effect on the sustainability of natural resources, including forests, water, and soil, all of which are declining. Inequality between humans and the environment is exacerbated by hostile human behavior and technological advances. The deteriorating environment endangers environmental or humanitarian safety. Floods, land fires, air, water, and soil pollution, erosion, drought, forest destruction, and biodiversity loss are all grave problems that endanger human survival as a result of human selfish behavior that ignores human life (Wurdianto et al., 2022).

The government has designated about 27 million hectares, or 21% of Indonesia's total forests and waters, as conservation zones. The majority of these protected areas are threatened by three major threats: claims and occupation by local communities, industrial encroachment, and conflict between the central and regional governments over natural resource authorities (Qodriyatun, 2019). Through local wisdom and customs, communities around conservation areas play an essential role in maintaining natural resources and conservation areas (Wulandari et al., 2022). The centralized pattern of conservation area management does not allow for fair and equal community engagement (Obradović et al., 2023). Community participation in the development process, including the management of conservation areas, is a form of substantial community participation and participation in the development process (Qodriyatun, 2019). Communities have the option to submit proposals, information, and considerations for conservation area management. However, community empowerment led by the government has not made it possible to realize ideal collaborative management (Perangananangin, 2014)

Local communities often disproportionately depend on the natural environment for livelihoods, and may prioritize their evaluation of the consequences of conservation projects based on how it affects the ecological productivity of their livelihood base (e.g., forests or rivers) (Abukari & Mwalyosi, 2020). Tarangire National Park (TNP) is the sixth largest national park in Tanzania after Ruaha, Serengeti, Katavi, Mikumi, and Mkomaz National Parks (Mbiye & Sosiya, 2023). The issue of national park governance emerged as the most important determinant of perceptions about the impact of TNPs on livelihoods and community development. Local communities near TNP are of the view that conservation decisions are often taken to favor wildlife with laws that are too harsh for people found guilty of conservation crimes (Abukari & Mwalyosi, 2020).

In research conducted in a nature reserve in Kenya, human conflict with elephants is an often intractable problem that threatens the contribution of conservation interventions to human well-being and securing livelihoods in Africa and Asia (Kuriyan, 2002). Local human populations living in key elephant areas are among the poorest and vulnerable people in the world (Roque De Pinho et al., 2014). The Orangutan population in Indonesia is limited to the forests of Sumatra and Kalimantan (Chua et al., 2020). The Orangutan population was estimated at 4,000-180,000 individuals in 1987, and the population decreased by 12% from the estimated total population of 4075 individuals between 1996 and 1997, and by the 1990s, the loss of Orangutan habitat in East Kalimantan was already 56%. This population loss can be attributed to hunting, forest use, leading to habitat fragmentation, fires, and forest conversion in East Kalimantan, which covers 32% of the country's territory. Orangutans who are fruit eaters in their natural habitat, such as lowland rainforests, especially in Kalimantan and Sumatra, play a role in the preservation of various types of rainforest plants through the food they consume, especially fruits and seeds (Ridadiyanah & Subekti, 2021). However, in the East Kalimantan region, industrial estates continue to develop and infrastructure is improved. As a result, it has an impact on the environment, the social life of the surrounding community, and the survival of wild creatures that live in the midst of this enormous growth. The deterioration of the quality and extent of animal habitat has a significant impact on their survival. If animal habitats are destroyed or destroyed, the threat of extinction must be overcome (Ridadiyanah & Subekti, 2021). In Kalimantan, trees are important not only to meet economic needs, but also to fulfill

the role of rituals and ensure the existence of Dayak people in the future. Disruption of the function of forests in people's lives will increase the creation of social disputes, such as those arising between communities, concessionaires, and plantation entrepreneurs. There are various customary practices that must be carried out related to the utilization and processing of these natural resources so that their business is not disturbed by spirits who inhabit the natural environment around where they do business (Usop, 2020; Mwamidi, et al., 2023).

The pattern of behavior and the way Dayak people operate or behave in the same way is referred to as a normative framework known as guidelines in life (Soekanto, 2014). This shows that culture is the baseline of behavior or patterns of behavior that set rules about what can and cannot be done, and so on. The cultural values contained in the *huma betang* philosophy also determine what can and cannot be lived. This refers to the customary law system of the Dayak tribe (Apandie & Ar, 2019). Based on this presentation, the purpose of this study is to identify the cultural value of Batang Garing in the life of the Dayak tribe and to seek an opportunity to apply the cultural value of the Batang Garing Dayak tribe in Orangutan conservation.

## 2. Methods

This research used a qualitative approach. This is intended to describe the symbol of Batang Garing of the Ngaju Dayak tribe in Central Kalimantan as a container for Orangutan conservation. A qualitative approach is used to adjust the method used, which is descriptive. The method in this study is a descriptive qualitative method. Descriptive qualitative method is a research method that presents findings in the form of descriptive sentences that are detailed, complete, and in-depth that describe the actual situation to support the presentation of data. The data collected is in the form of words, sentences or images that have more meaningful meanings than just a presentation of numbers or frequencies (Sutopo, 2006).

The authors use a literature study or literature review, which is a study conducted through collecting data or scientific papers. This research is used by using scientific journal articles that are relevant to the selected discussion which aims to solve a problem that is basically focused on a critical and in-depth review of relevant library materials. The stage in this research is the selection of articles, initial data collection, collection of supporting data then producing conclusions.

## 3. Results and Discussion

This Study uses the literature review method, where this technique collects some literature relevant to the topic discussed, along with some relevant literature that represents the topic discussed and is presented in a table to get conclusions from several sources that are issued in (Table 1).

Table 1. Relevant literatures represent topic

Author, title, and year	Area	Purpose	Method	Conclusion
Yuliana (2022) "Sociological Construction of Batang Garing as the Spirit of Sustainable Development,	Central Kalimantan	To know that Sustainable Development can complement and harmonize with the lives of Customary Law Peoples in	The qualitative research method analyzes the concept of Batang Garing. Data collection sources/types and techniques include;	There is an alignment between the philosophy of Batang Garing and Sustainable Development. The two concepts can complement each other to achieve harmony and balance in all aspects that determine human life in the

Central Kalimantan”	Central Kalimantan which is guided by the philosophy of Batang Garing. This paper highlights the harmony of values or meanings between the philosophy of Batang Garing and the principles / objectives of Sustainable Development.	observations, interviews, FGDs, discussions, field notes. Data analysis using models Miles dan Huberman.	present, as well as in the future related to the preservation of natural resources and their management. The harmony between the philosophy of Batang Garing and Sustainable Development can be found when the meaning of the philosophy is constructed, this allows the active involvement of indigenous peoples in the process of sustainable development with the principle of "No One Behind". The construction results include ecological aspects; to carefully manage nature with diverse customs, otherwise known as the purpose of conservation of natural resources. Social aspect; involvement of Dayak women in access, ownership and control of natural resources, or in the aim called gender equality. Economic aspect; Both pay attention to the balance of other aspects, and not merely talk about "advantages" that are damaging to the environment. As for the suggestion that, the Central Kalimantan Government can make the value of <i>Batang Garing</i> contained in every development policy making in Bumi Tambun Bungai.
Apandie & Ar (2019) “Huma Betang: Cultural Moral Identity of Dayak Ngaju Tribe Central Kalimantan”	Central Kalimantan To synthesize the study of huma betang as a cultural moral identity of the Dayak Tribe Ngaju in Central Kalimantan.	The study used the qualitative method of huma betang history. The method chosen in this study is ethnographic method. Data analysis carried out consists of	The cultural identity that is reflected is huma bentang: 1) as a reflection of the life of a tolerant society; 2) as the origin of the growing sense of unity and togetherness between Dayak tribes after the peace agreement Fall Anoi; 3) as a replica of the communal system

			data reduction, data presentation, display data, conclusions and verification.	adopted by the Dayak people; 4) contains cosmological patterns that reflect the balance of a value; 5) as a reflection of democratic and egalitarian life; 6) through the pattern of life gave birth to the concept of Dayak leadership; 7) represent the collective principle; 8) as an ideal model of a pluralist society.
Morgans et al., (2017) "Not more, but strategic collaboration needed to conserve Borneo's Orangutan"	Kalimantan	To increase returns from investment and often encouraged, but not all collaboration is equal and may be lacking Important characteristics for overcoming the problem of collective action. Furthermore, partnerships that are beneficial to the collective are not necessarily beneficial to a individual.	Qualitative survey techniques are used to measure perceptions of collaboration held by individual actors in networks and the impact of organizational attributes on network formation and assessed perceptions.	Conservation of individual species, such as Orangutans, requires cooperation between various stakeholders from around the world. While securing endangered Great Ape populations depends on proper land use planning and management, which does not currently exist, improving the efficacy of cooperation between conservation organizations is an important prerequisite for success. To achieve this, social processes that maintain trust and innovation are needed. Our results show the collaboration that occurs between conservation organizations, especially from those who do capacity building activities to those who do direct action. However, the level of trust is not evenly distributed among the group's stakeholders. While stakeholder interaction today is characterized by social processes related to the exchange of knowledge, there are areas within the network where stakeholder interaction shows closer bonds, and this is where the process of trust formation can be carried out and

Russon (2008) "Orangutan rehabilitation and Reintroduction"	Kalimantan and Sumatra	To learn about Orangutan rehabilitation and reintroduction.	Qualitative survey techniques are used to measure the rehabilitation and reintroduction of Orangutans to wild populations.	supported. Combined, these findings suggest that a general collaboration drive should be replaced with the development of strategic capacity-building initiatives targeted to the specific needs of actors operating in different parts of the network.  An assessment of Orangutan rehabilitation's contribution to conservation must recognize that conservation is only one of many interrelated forces guiding it. We assess the success of Orangutan rehabilitation in achieving conservation-oriented goals in terms of establishing independent populations and individual success in continuing forest life (survival, reproduction, progress). We use this index because it is one of the few relevant indices for which quantitative data is available across the population. Success in continuing forest life is rarely systematically assessed for Orangutan rehabilitation.
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Based on a journal that discusses the harmony between the philosophy of Batang Garing and Sustainable Development in Central Kalimantan, it can be concluded that the concept of Batang Garing has harmony with the principles of sustainable development. The sociological construction of Batang Garing as the soul of sustainable development emphasizes the importance of maintaining ecological, social, and economic aspects in a balanced manner. Indigenous peoples can be actively involved in the process of sustainable development with the principle of "Leaving No One Behind". Therefore, the Central Kalimantan Government can make the value of Batang Garing as a reference in every development policy making in the area. This literature also discusses the rehabilitation and reintroduction of Orangutans in Kalimantan and Sumatra. Qualitative survey techniques are used to measure rehabilitation and assess the contribution of Orangutan rehabilitation to conservation. This assessment must recognize that conservation is only one of many interrelated forces affecting the success of Orangutan rehabilitation and reintroduction.

### 3.1 Identifying the value of Batang Garing in the life of the Dayak tribe

The Dayak tribe is one of the largest tribes in Indonesia that has local wisdom and strong character values. The Dayak tribe is divided into seven large tribal groups with 405 sub-tribes. Dayak sub-tribes in Central Kalimantan have 54 sub-tribes spread across various watersheds such as the Kapuas, Kahayan, Katingan, Mentaya, Seruyan and Barito rivers

(Riwut, 2007), one of which is the Ngaju Dayak tribe. This tribe has a unique way of looking at nature and the environment. Nature is depicted in the form of symbols that are still believed today. One of these symbols is Batang Garing or Batang Haring which is interpreted as the Tree of Life which is a symbol of balance between humans and humans, humans with nature, and humans with God that is attached in Figure 1.

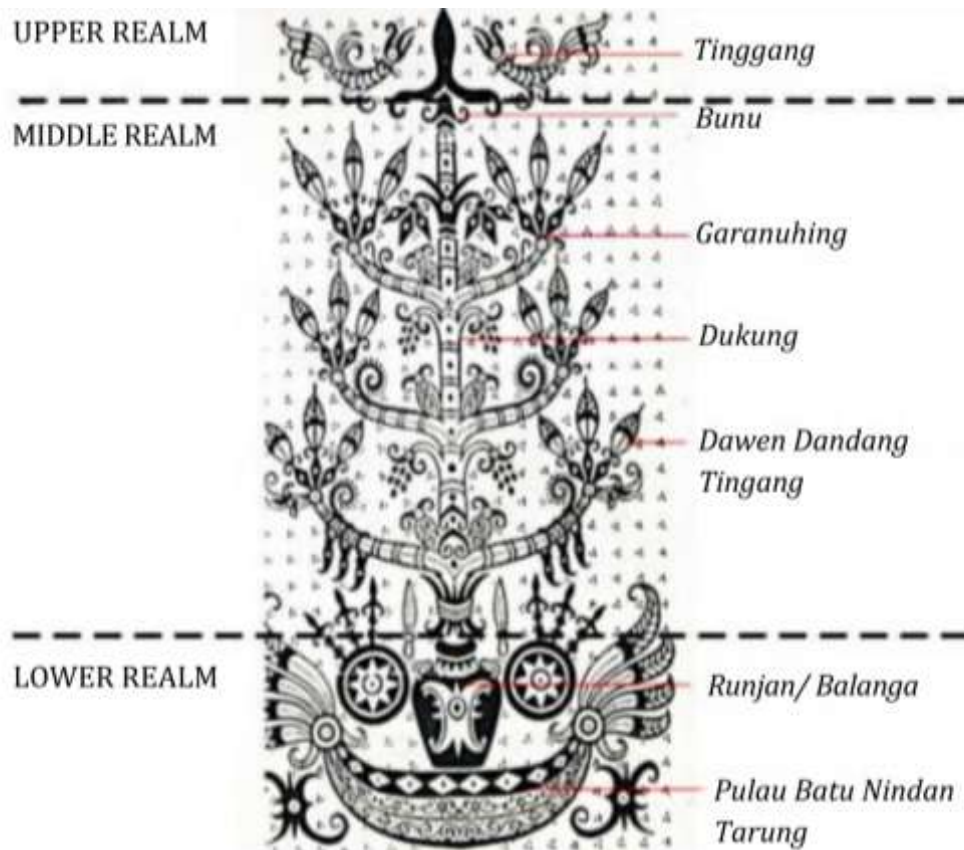


Fig. 1. Batang Garing symbol  
(Wurdianto, 2022)

This symbol depicts the origin of the creation of man and the universe. The image of the *Tinggang* (hornbill) bird as a symbol of the ruler of the upper world and the image of *Tambun* (Dragon) is a symbol of the ruler of the underworld. The part of the Batang Garing tree that is spear-shaped and points upwards depicts *Ranying Mahatala Langit* as the source of life. The image of an urn filled with water and a branch notched at the bottom of a tree depicts Jata or the underworld. The leaves on the Batang Garing tree depict the tail of the hornbill. Each branch has three pieces facing up and down, depicting three major groups of humans as descendants of *Maharaja Sangiang*, *Maharaja Sangen*, and *Maharaja bunu* or *buno*. The fruit is used as a reminder to always respect fellow humans. Batang Garing is understood by the Ngaju Dayak tribe as a classification of natural levels; upper realm, earth, and lower realm (water). Batang Garing connects the upper and lower worlds, which is likened to a human body that has a heart, neck, heart, nerves, uterus, and legs (Wardani et al., 2020).

The Batang Garing symbol is not only viewed in a vertical dimension, but also seen as a horizontal dimension that depicts the life of the universe (cosmos) related to life, death and birth. Meaning in life is not only viewed in terms of well-being, reality or objectivity, but also viewed through the balance of the cosmos. If the cosmos/universe is in balance and harmony, then the lives of humans and other creatures will also be good.

The understanding of nature by the Dayak Ngaju tribe provides information that the upper realm, earth, and lower realm are one unit. The implications of this understanding can be seen in the customs of those who respect and respect the nature of the environment

in which they live. If there is a sign of an imbalance between humans and nature, the Ngaju Dayak tribe holds the *Manyanggar* ceremony and *Hinting Pali* ritual to rebalance the relationship between humans and nature. These natural signs, for example: frequent disasters, disputes, crop failures, disease outbreaks, and so on (Usop, 2015).

The symbol of Batang Garing is still firmly held by the Dayak Ngaju tribe because in its philosophy it contains teachings about the mentality to take responsibility, preserve the continuity of traditions, noble values that are beneficial for the benefit of the wider community, and introspection (self-control). The image of the balance in life between man-man, man-nature and man-God is reflected in this symbol of Batang Garing. If one element in the order of the universe is disturbed, it has an impact on the imbalance of the cosmos.

The relationship between the Ngaju Dayak tribe and its natural environment is described as earth, sky, and sea that is always attached to humans. A sense of continuity with nature is also found in the mythology of the Batang Garing tree (Sukiada, 2018) which is very interesting because it is considered as the personification of humans who anatomically have hair, hands, feet, blood, bones, layers of flesh, breathing, and other organs. So, the Batang Garing tree is considered an old brother because it was created first before humans. Trees in various Dayak cultural lives are believed to have power as life guides, shade givers, protection givers. According to the view of the Ngaju Dayak people, trees are equated with humans, so that forests consisting of various kinds of trees become one bond that cannot be released. Man and the forest are two subjects with their own capacities. Humans are not only positioned at the subject level, especially in treating their forests, but nature can also be a subject that influences human behavior around them.

The tree, in the Dayak tribe is considered as the source of life and is symbolized as the tree of life or Batang Garing. Batang Garing has a meaning as a symbol of the balance of human-nature and human-human, as well as God-man. The relationship between the *Ngaju Dayak* community and the earth/land and forest/trees is very strong and is revealed in the Dayak customary system. In the customary system, there is an expression of gratitude to the earth and forests so as not to lose their power which has an impact on human damage. If humans destroy nature, then *Hatala Ranying* (God) will be angry as shown by catastrophic events that disrupt human life such as floods, long droughts, disease outbreaks, and limited sources of basic food. This belief has a moral value that humans must respect nature, not damage and exploit as needed and preserve nature. According to the beliefs of the Dayak Ngaju tribe, if nature is destroyed, then the damage is the beginning of disaster because the wrathful *Hatala Ranying* (God) cannot be undone by humans. As a consequence of such indigenous beliefs, it is considered neutral towards nature conservation, but to some extent the concept can raise awareness to protect nature. This is because forests, earth, rivers and the entire environment are part of life.

### *3.2 Ideas of implementing Dayak Tribe's Batang Garing values in the term of Orangutan conservation*

There is a massive shift in conservation from centralized systems to community-based conservation (CBC) approaches. Most African countries supported community-based natural resource management (CBRM) approaches (Rampheri & Dube, 2021). They recommend this as a strategy to promote community responsibility and participation in the management of natural resources while integrating development and conservation goals. As a new international model for natural resource management, CBNRM is recognized as a win-win framework for conservation. This approach considers communities as owners and managers of natural resources and requires their participation in protected area management. The International Union for Conservation of Nature (IUCN) introduced its Community-Based Natural Resource Management (CBNRM) approach in the 1980s. Clearly outline participation and engagement guidelines to promote a participatory approach to conservation with reference to CBNRM, participation includes community-level involvement in a) the decision-making processes; b) implementing the programs; c) sharing the benefits of the programs; d) efforts to evaluate the programs (Bond et al., 2006).



The Orangutan make their presence known primarily in the following ways by the conservation NGOs and their activities (Yuliani et al., 2018). In the organization can promote a sense of responsibility in Orangutans employ villagers as staff, provide environmental education, or running a community development program that can act as a quasi-state actor at the same time Government obligations (e.g. Orangutan migration, Orangutan rehabilitation, release, patrol, confiscation) (Rampheri & Dube, 2021). These ambiguous roles and limited resources, as competing demands from governments and economic players; Donors, and Villagers create ethical, political, and practical aspects of the dilemma of conservators and their forms of interaction with them and the community (Grodzińska-Jurczak & Cent, 2011).

Orangutan conservation considers the well-being of local people and human-centered activities such as habitat protection, educational programs to promote environmental awareness, and development projects to create jobs. Organizations are increasingly recognizing that this can only be achieved through the introduction of sustainable livelihoods and infrastructure, which primarily affect and influence relationships between villagers, conservationists, and government officials. The dynamics of forest management, including Orangutan conservation, for the Dayak community in Central Kalimantan originates from the concept of Batang Garing as a symbol of the environment which is understood by the community as a balanced relationship between humans and nature (Usop, 2020). Therefore, the function of the forest for the Dayak community is not only as a fulfillment of life's needs but also related to the responsibility of the Ngaju Dayak to maintain the preservation of natural resources for the lives of future generations. They believe in the value of *Peteh Tatu Hiang*, "*petak danum akan kolunen harian andau*" (remember the message of the ancestors, the motherland for human life to come). This local understanding is in accordance with the concept of sustainable use of natural resources (sustainable livelihood) (Setyowati et al., 2005).

While in The Ngaju Dayak people are a Dayak group that is further divided into four sub-groups, namely Ngaju, Maanyan, Lawangan, and Dusun. In the Ngaju Dayak social system, the positions are known as *Pambakal*, *Pangirak*, *Penghulu*, and *Kepala Padang* (Head of the Padang). *Pambakal* is the highest hierarchy of a leader with the condition that has influence in society, is sociable and eloquent, and has courage also firmness. *Pangirak* is *Pambakal's* representative in organizing mass mobilization for community service, welcoming guests, and being an interpreter in decision-making made by *Pambakal*. *Penghulu* is in charge of assisting *Pambakal* in customary affairs in the village. Last, *Kepala Padang* assisted *Pambakal* in arranging land distribution, especially for farming land. It is basic knowledge of hierarchy that happened in Ngaju (Setyowati et al., 2005).

The Central Kalimantan Damang Pambakal Conference held by the Central Kalimantan Dayak and Regional Consultative Council in 2002 in Palangka Raya, included *Pambakal* each tribes, recommended Central Kalimantan as an Ecological Area with the involvement of *Damang Pambakal* spread across Central Kalimantan to participate in controlling the use and management of natural resources. nature found in the customary territory concerned. This condition shows that the historical experience faced by society has formed collective knowledge and awareness or collective consciousness to respond to the problems it faces regarding conservation and environmental management. In essence, the philosophy of culture concerns the issue of values, in which the values themselves are the essence of culture that can guide the principles of human goals, including controlling patterns of human behavior through the values that exist in the philosophy of culture. The values contained in the philosophy that the Ngaju tribe believes are a form of civic virtue that lead or tend to the development of ethics, morals, and norms within the relationship between humans and nature as careful management of nature is reflected in customs regarding local procedures in preserving nature through the concept of local wisdom.

The construction of the meaning mentioned above is not absolute, and has no intention of narrowing the meaning attached to the Batang Garing philosophy, because it depends on the experience of the subject as an interpreter. That is, it still opens up space for constructions that present other meanings. So far the construction provided is expected to

be useful in order to form universal knowledge/which can be understood by the wider community, including policymakers, namely the Government, as well as policy observers, both academics and practitioners regarding the agenda of Orangutan conservation

#### **4. Conclusions**

The values reflected in the Batang Garing philosophy are the identity and culture of the Dayak Ngaju tribe, Central Kalimantan. These values are mutual cooperation, togetherness, tolerance, harmony, and coexistence. These values should be maintained as local wisdom in Central Kalimantan. For each value, there is a construction of knowledge that is used to maintain environmental sustainability. There is a legend of these values that are used to strengthen people's understanding of environmental sustainability with its ecological functions, where lakes, forests, and rivers are an area that mutually influences the continuity of the water system in lakes, land, and air.

The construction of meaning that is carried out provides space for collaboration between local values/local wisdom of Batang Garing and modern values in the Orangutan conservation agenda, it is hoped that this alignment will facilitate the involvement of indigenous peoples so that they play an active role in the conservation process because there are several values that overlap with each other. side by side, and in harmony with the Batang Garing's philosophy of life

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#### **Author Contribution**

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Not available.

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