



## **PUYAKHABHU: LOCAL WISDOM VALUES IN ENVIRONMENTAL MANAGEMENT AT *SENTANI* INDIGENOUS COMMUNITY IN JAYAPURA REGENCY, PAPUA**

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This article aims to describe and analyze the values of local wisdom possessed by the *Sentani* indigenous community in managing the environment. It is particularly the management of Lake *Sentani* which is the source of livelihood for indigenous communities who are commonly living around Lake *Sentani*. The method used in this research is a qualitative method with data collection techniques in-depth interviews, observation and focused discussion. The results of the study show that lakes are a source of life for *Sentani* communities. They are bounded by their values of harmony with nature. For this reason, they guard the lake by subsistently utilizing natural resources with traditional rituals. They are carried out to sanctify the place in the framework of sustainable maintenance and management.

**Keywords:** Local wisdom, Indigenous community, *Sentani* lake, Papua.

### **Introduction**

Ecologically, the adaptation patterns of indigenous Papuans to the environment follow the three major regional ecological zones, namely: (1) adaptation patterns to the ecological zones of coastal, coastal and small island communities, (2) patterns of adaptation to the ecological zones of lowland communities and feet mountains, and (3) adaptation patterns to the ecological zones of the mountain and inland communities. Papuan indigenous people who adapt to these three ecological zones have heterogeneity, namely social institutions, cultural values and equipment.

Development approaches that pay attention to the values of environmental wisdom in accordance with the ecological zone or cultural area of each ethnic group of indigenous Papuans are made into four main ecological problems of community development are as follows: (1) intrinsic meaning of environmental wisdom values derived from symbols - the symbol of indigenous Papuans (2) 21st century conventional development patterns devoted to the economy have been adopted and have not considered or integrated the environmental values of indigenous peoples, (3) planning and policy of regional expansion in Papua has not taken into account the cultural landscape ecosystem approach and customary law and eco-regional boundaries; and (4) there has been no development ecological case study for provincial expansion, fostering national unity awareness in Papua and developing environmental science as a multidisciplinary science. To solve the ecological problem of building miles, the stages of cultural

constraints need to be considered. This is very important to ensure the effectiveness and sustainability of development planning policies in Papua.

The values of environmental wisdom reflect human attitudes and behavior in undergoing 5 social functions (security, food supply and resources, place to develop offspring, means of integration, and self-actualization) in order to be able to survive. The values of environmental wisdom are abstractions of people's experiences of adapting to their environment in a broad sense, and can be considered as guidelines, ways and directions for the most effective activities for the supporting community in carrying out community life in their environment. Furthermore this is not static because they always experience in development. This is in accordance with the changes that occur.

In this paper, it focuses more on the indigenous peoples in the management of lakes which are based on customary environmental management based on the values of environmental wisdom possessed by the indigenous people of *Sentani*. Thus the things that are the subject of the discussion are an overview of the life of the *Sentani* indigenous people, then reveal the values of environmental wisdom in managing the lake including the life activities of the *Sentani* indigenous people associated with the lake, such as economic activities, traditional rituals, and ceremonies or religious rituals.

## **Research Methods**

The method used is a qualitative to gather information about issue of the management of Lake *Sentani* based on local communities. This method is based on data or information in the form of detailed description of situation, events, actors and behavior observed. Data were collected through observation, in-depth interviews, and observation who comes and see the *puyakhabu*. Observations were conducted to collect data related to work activities in the *Sentani* Indigenous Community. This observation is done by settle and staying for some time in the location and in the environment of *Sentani* Indigenous Community. In-depth interviews were conducted to gather information from informants from *Sentani* Indigenous Community and the people who involved that event. Data and research information collected then analyzed descriptively and qualitatively.

## **Discussion**

### **Local Wisdom Values**

Local wisdom is a view of life, knowledge or life strategy that manifests activities carried out by local communities in answering various problems in meeting their needs. The function of local wisdom in the context of the National is having the ability to control, is a stronghold to survive from outside cultural influences It has the ability to accommodate outside culture, has the ability to give direction to cultural development, and the ability to integrate (Hijjang, 2018; 2017; 2016).

When humans actualize behaviors that are based on positive experiences on their environment, humans will become wise in managing an environmentally sound life system. The values of wisdom in managing natural resources are very important, because empirically one of the most worrying aspects of the crisis phenomenon when exploiting natural resources is not done wisely. Therefore, their local knowledge teaches a concept of environmental management wisely so that its utilization and maintenance are sustainable (Hijjang, 2017; 2016; 2015; Karubaba, 2007).

Recognition and development of local knowledge is not done without shifting the central and closed decision-making patterns towards decentralization and transparency. With transparency and recognition of local knowledge proportionally, the community can participate in environmental management, both the physical environment, and maintaining fellow creatures, of course for human relations (Hijjang, 2017; 2016; 2009). Indigenous Papuans have the values of local wisdom related to how their views about nature and the environment, which then becomes a guideline for them in carrying out subsistence management

and resource utilization that makes the existing environment in Papua awake in harmony. Therefore it shows a mutually supportive relationship between natural sustainability and human survival.

The values of local Papuan indigenous wisdom related to sustainable environmental management are as follows: First, the value of moral unity with nature. Papuans are natural humans and are friends with nature as a source of livelihood as well as a place of residence for the ancestors according to customary law. Papuan indigenous people wherever they are in their country (Papua) always have a close moral relationship with their natural environment, and that is the value of their moral unity with nature. The occurrence of a number of land use conflicts in Papua is a concern for the utilization of their sacred customary territories which can bring various natural disasters such as floods, droughts, pests, crop failure, the absence of catches on the sea and so on due to their faulty attitudes and behavior towards nature. In the culture of various indigenous tribes in Papua, life is good, if the cosmos remains in balance and harmony. This is in order for the cosmic balance to be well maintained and continuously. Papuan people must obey customary law in which there are rules for how humans manage the environment and interact with various elements in the cosmos (human interaction with humans, humans with grandmother's spirits ancestor, man with God).

Second, the value of land as a mother is the view that land is considered to be of Mother (Mama) value to the large Papuan tribes which gave birth to a variety of living things, and a variety of cultures and customary laws in Papua. Land is as a mother who gave birth to living things for the sustainability of ecological communities on planet earth. Phenomenological reflexive meaning is a metaphor that describes the land of a female. Considered to lead to the conclusion "the land contains a woman" and because it is even more powerful, so that "the land is the womb of a mother to develop offspring". The land does not belong to humans and so forth. Humans belong to the land because humans come from the land, so humans are obliged to preserve the land as a moral ecological community. As for the essential meaning and philosophy is existential meaning, that land is the existence of indigenous Papuans. It means that without land there are no indigenous Papuans. Land is the main component of the ecosystem which puts the environment into the "existing" category.

The Papuan indigenous people in general in their cosmological insight focus on the Land as something having "soul" or "spirit" or sacred value. The customary belief structure places that all the land of Papua is sacred customary land. It is fully trusted by indigenous Papuans, that land is a source of life. Then the indigenous Papuan people as a whole have the belief that Tanah Papua is his mother. This can be interpreted, that the culture of "Land as a Mother" in Papua has a close relationship with the way of view of the Papuan people in maintaining the balance of the cosmos and beliefs related to the Natural environment. In the land culture as a mother, indigenous Papuans believe that all land in Papua is indigenous land.

As well as the good and honorable treatment of a family towards a mother who gives life in the world, the same treatment takes place in the Land as Mother. In the land culture as a mother, life is good if the cosmos remains in balance and harmony. In order for cosmos balance to be maintained properly and continuously, humanity must obey customary law in which there are rules for how humans manage the environment and interact with various elements in the cosmos (human interaction with humans, human beings with grandmother's spirits ancestor, man with nature, man with God).

The concepts of indigenous Papuan beliefs about the sacred values of the Land are the most important traditional principles that need to be known. This is in order to understand the life of local indigenous peoples. That in the life of the indigenous Papuan people, the Land is received high attention and respect, although for outsiders it may seem strange. In this culture, development in an area of indigenous Papuans, the culture of land as a mother is very important to be respected as the indigenous people. In addition, the indigenous people of Papua are still running the system of costum leaders, namely *keondoafin* as customary enforcers of values and norms, so that the values of wisdom possessed by their ancestors that are transmitted historically from generations and those are maintained because of the latency of their cultural structures and systems. For this reason in the framework of development, their customs and cultural traditions need to be used as a basis and contribute to being part of joint activities with more modern activities and for mutual progress.

### **Sentani Indigenous People**

The term *Sentani* is not found in the *Sentani* Language structure. According to Ramandei (1997), the original name *Sentani* is Puyakha. The significance meaning of Puyakha in the *Sentani* language is a real feature, while Puyakhabhu is a lake / water area that is owned and controlled by Puyakha. This name stems from the story of the purchase of water on Mount Dofonsoro by two ancestors who lived on *Yonokhom* Island (Ramandei, 1997). While *Sentani*'s own words came from the word *Hedam* which turned into *Setam* and later became *Sentani*. The word *Hedam* is still encountered in the *Ondofolo* Tribe of *Ohei* (Ramandei, 1997). *Hedam* or *Setam* is broad meaning, which may be related to the extent of the stretch of Lake *Sentani*. The population living in the area is known as the *Sentani* population which has been administratively integrated into one sub-district consisting of 27 villages and 4 sub-districts, even the language used is known as the *Sentani* language.

According to the historical narrative of the spread of the *Puyakhabhu* people, at first the population of *Sentani* was centered in three places: *Yamokho* Hill then spread to *Ohei* Island (*Asei* Village) then to *Ayopo Kecil*, *Waena*, and *Yoka*. Then *Ajau* Island with *Ifar Besar* village then spread to *Ifar Kecil*, *Sibaobai*, *Yabuai*, *Sereh*, *Puyoh Kecil*, *Ifar Babrongko* and *Abar*. Then *Yonokhom* Island with *Kwadeware* village then spread to *Doyo*, *Sosiri*, *Yakonde* and *Dondai*. Indigenous peoples who inhabit and own rights in the *Dofonsoro* Mountains region (North *Dofonsoro*) can be grouped into three language environments. Each of which has a separate indigenous territorial environment. The three indigenous territories above are *Tapera*-speaking people with indigenous territories around the *Depapre* area (*Demta*), *Moi*-speaking population (*Sentani*) with indigenous territories around *Sentani* and the *Ormu*-speaking population with indigenous territories around the *Ormuwari* coast.

Residents with *Tepera* and *Ormu* languages have the same traditional institutional structure, namely the institutional structure attached to the clan. Whereas residents who speak *Moi*, their customary institutional structure is based on tribes which are a combination of several clans. Therefore, in the *Moi*-speaking community, they are known as *Ondofolo* (*Ondoafi*), namely large tribal chiefs who are in charge of a number of clans, while for the *Tapera*-speaking community and *Ormu*, they only know the clan leader.

In the *Sentani* community, the structure of the costum community consists of, first, *Apu Along* / *Apu Afaa* who is in charge of advising *Ondofolo* (*yodo yado*: which is in adat). second, *Ondofolo* is the leader of leaders in the village. Third, *Khoselo* / *Khotelo* is a clan head (clan) who is in one position and is responsible to *Ondofolo*. Fourth, *Akhona* is the head of the family of one lineage and is responsible to *Khoselo* / *Khotelo* (head of the clan). Fifth, *Akha Pakhe* is an indigenous community who is supervised by an *Ondofolo*. The highest position in the customary government is held by *Ondofolo*. However, from a functional point of view, *Ondofolo* should provide services and care for its citizens, not vice versa of being the master served. The position of *Ondofolo* is a title of inheritance handed down to the oldest *Ondofolo* son. *Ondofolo* comes from the word from *Ondowai* which means glory, greatness and honor. Therefore, someone who has just been appointed as *Ondofolo* is often called *Ondiwai*. *Ondofolo*'s inauguration process was marked by the installation of *Yomalo*, namely a belt / belt made of bark, which was given to him as a symbol of the holder of hereditary power.

The inheritance process is carried out based on patrilineal principles, whereby only boys have the right to inherit the throne of *Ondofolo*'s leadership. As in other patrilineal groups, boys continue to clan their fathers, while girls only become members of their father's clan as long as they are not married or have a family. But when she is married, she is immediately withdrawn into her husband's clan. In addition to the clan inheritance process as described above, there is also the inheritance of wealth, customary positions, spiritual values and skills in the arts (carving, dance and sound) that use the patrilineal path. Collective wealth, especially land, forest and marine resources, how to use use is carried out by the oldest boys who usually inherit traditional positions (*khoselo* or *akhona*).

In addition to the aspect of resource ownership, in the aspect of resource management is also colored by the development of masculinity values. This tends to place women in a marginal position, both regarding the division of roles and decision making. The division of roles and decision making above has

a negative effect on efforts to empower women who are emancipatory and participatory with natural resource conservation policies. The traditional inheritance process that is still strong until now allows dualism of leadership in the village area. The presence of formal government does not cause the role of traditional institutions to be marginalized. Together with this process, there were also various other structural institutions such as Villages (*Kampung*), LKMD, Cooperatives, farmer groups which took over almost all the roles of traditional institutions, which ultimately strengthened the dominance of the role of formal and informal institutions outside traditional institutions. Although as a mechanism for the role of customary institutions, it can be said to be increasingly weak, but in principle the customary government still has great authority and influence compared to the formal government. This is because (1) customary government besides growing and rooted in the local community, is also directed to serve the interests of the community. While formal government and leadership is tend to be conditioned to and function to serve the interests of the bureaucracy from above; (2) the magic-religious belief of the local population that the *ondoafi* has magical powers, something that the village head (*lurah*) does not have.

The values of environmental wisdom in *Sentani* adat community. The community groups that inhabit the two observation areas are very heterogeneous in terms of their ethnicity and livelihood. In addition to the local indigenous people (*Puyakhabhu* people), this area is also inhabited by other residents both from Papua such as the Dani tribe who inhabit the foothills of the *Dofonsoro* Mountains Nature Reserve, as well as non-Papuan ethnic groups such as Toraja, Bugis, Buton and Javanese who concentrate on villages in the *Sentani* District area.

In terms of the potential threat posed to the sustainability of the *Dofonsoro* ecosystem function in the *Sentani* customary area, Dani ethnic migrant communities pose a serious threat because of their activities as shifting cultivation farmers who expansively open forest areas within the Cycloops Mountains Nature Reserve. While the pattern of utilization of the biological resources of the indigenous people of *Sentani* (*Puyakhabhu*), as exemplified by the people who inhabit the Buper region, is still traditional and not as extensive as the Dani ethnic community. The orientation of the utilization of forest products is still subsistence, limited to meeting the needs of everyday life.

However, some patterns of utilization of forest products look quite destructive, such as taking bark as the basic material for making *Sentani* custom paintings. By peeling the skin to injure the stem cambium, it is certain that this work pattern threatens the sustainability of timber resources as well as the function of customary forests within the *Puyakhabhu* customary territory.

In contrast to the Buper community, people living in the shores of Lake *Sentani*, such as the people of the Small *Asai* Village (*Kleublou*). It is depend more on fish from Lake *Sentani* than on forest products. In relation to conservative utilization efforts, the *Asai Kecil* community has adopted cage innovations brought by the local Fisheries Service.

The pattern of utilization of marine products also looks very conservative in the *Amay* Village community group. Efforts to protect marine biota as commonly known in Maluku as *Sasi* are also known here. This activity was initiated by freeing the waters of *Sarmabo* and *Bunyatemee* Beaches from fishing activities for approximately one year. The sea area is marked by sticking a pine tree. After a year of fishing, the ceremony begins with a traditional ceremony led by the chief of the sea tribe from the *Sorontouw* and *Yerisetouw* clans.

The explanation above shows that the indigenous people of *Sentani* actually still have a conservative culture in the management and use of natural resources. Other reasons for saying that the culture of the *Sentani* indigenous people is quite participatory with the effort to protect the sustainability of natural resources are: First, it is known that the zone of range is made for humans and non-humans. In the belief of the *Puyakhabhu* people, the human range is only limited to the second layer of the *Dofonsoro* Mountains, because in the third layer, the mountainous area becomes an ancestral residence zone that is believed to be guarded by a snake. Second, there is the meaning of humans towards non-human beings in nature. *Suang* wood (*Xanthostemon* sp.) Which is widely used as a pillar for stilts, in the traditional belief of the *Puyakhabhu* people is considered human incarnation. Therefore in the harvest rite begins with asking permission from the wood dweller. This treatment is believed to make wood easier to cut. After being cut down, the logger asks that the wood-dwelling creature come out of the log so that lighter wood

is carried. When plugged back into the water, again the wood dweller is asked to return to occupy the wood that has been plugged in to give strength to the marine attack. This view has helped to conserve natural resources. Third, the fact that those who carry out cultivation in the *Dofonsoro* Mountains are non-*Sentani* (non-*Puyakhabhu*), while the indigenous people (*Puyakhabhu*) themselves are fishing communities and sago gatherers who are not dependent on the garden (gardens as an alternative food provider). Fourth, the *Puyakhabhu* indigenous people have actively participated in protecting conservation areas which from the perspective of the indigenous people of *Puyakhabhu* are seen as sacred areas. During a group interview, a *Khoselo Yoku* told of their efforts to drive encroachers and shifting cultivators who opened gardens in the sacred area at the foot of the *Dofonsoro* Mountains. Fifth, the collection of timber and sago forest products is only limited to the necessities of life. For example, only wood with small diameters and as much as one house needs, whereas for sago only mature sago can be harvested.

## Conclusion

Customary institutions despite experiencing pressure but still exist in the *Puyakhabhu* indigenous community. *Ondofolo*, *Khoselo* and *Akhona* hold key positions in traditional institutions so that the involvement of these traditional elements in every part of rehabilitation activities is very important to note. Although there are some destructive practices on the sustainability of ecosystem functions, in general it can be concluded that the culture of the *Sentani* community (*Puyakhabhu*) in the utilization and management of natural resources is quite conservative. Misinterpretation of the Government towards the attitude of the people who do not want to participate in reforestation activities is often due to the government's inability to answer the needs of citizens. Social changes around Lake *Sentani* despite bringing a number of positive changes but also have an impact on the quality of life of local residents.

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