

## A Study of Indigenous Community-Based Economy at the Regency of Jayapura

Westim Ratang, Jhon Blesia, Andika Rante, Andreas Kuddy  
The Faculty of Economic and Business, Universitas Cenderawasih, Indonesia  
westim\_ratang@yahoo.co.id

**Abstract:** The research aims to discover the potential of local natural resources in improving the economic life by utilizing the indigenous communities' local wisdom at the regency of Jayapura. Two local customary councils namely Sentani and Moi were used as samples. Data was collected by the interviews to both tribal leaders and heads of village, observation as well as secondary data analysis and analyzed by three stages: data reduction, presentation of the data and drawing conclusion. The results show that the livelihood of DAS Sentani is farming, fishing and taping sago where their natural resources are fish, sago, coconut, areca nut while that of DAS Moi is farming and livestock and the natural resources are gold and rock mines, tourist attraction, sago, durian and rambutan. Both indigenous communities have their local wisdoms that are believed to have rewards if they obey and sanctions or punishments if disobeyed. Some local government's strategies are recommended to be done in order to help both communities to improve better quality of life.

**Keywords:** *Local natural resources, Local wisdom, Indigenous community, Economy*

### 1. Introduction

Local wisdom is the ancestral heritage in the values of life fused in the form of religion, culture and customs. Customary community adapt to their environment by developing local knowledge or wisdom in the form of ideas, tools, combined with customary norms, cultural values, and environmental management activities in order to meet their life needs (Suhartini, 2009). The community have distinctive characteristics, living in groups regularly and harmoniously in accordance with customary law and have strong ties to the ancestral origins. They reside in a particular region, have a strong relationship with the land, forests, natural resources and environment, control, possess, organize, manage and utilize the hereditary. Human history from the very primitive to the highly modern development can never be separated from its dependence on natural resources. This dependence has produced a variety of models of development of natural resources whose primary purpose is to maintain its sustainability. Natural resource management model is highly dependent on the characteristics of the natural resources, regional and socio-economy of the community. The evolution of human relationship with nature has formed a harmonious relationship called pan cosmism where men seek to live in harmony with nature (Hadi, 2009). In the view of people at that time, the nature was great and sacred; it must therefore be maintained so that there was no damage to nature and negative consequences for human. In the realization of the idea, human created taboos or ethics of how to act and behave towards nature and most of the ethnic groups in this country have such measures or referred to as environmental wisdom (Suhartini, 2009).

In Papua especially in Jayapura, the local wisdom historically has existed and gained the recognition in indigenous communities. The rights and existence of these communities for generations have been inherited and taken place in the midst of society. However due to the diversity of customs in Indonesia and the inclusion of government among the people, the indigenous communities are increasingly marginalized by the government policy and the impact of globalization. In order to preserve and protect these communities, the Provincial Government through the Special Regional Regulation (Perdasus), Papua Province No. 21 in 2008 pertaining the Recognition of Customary Land Rights of Indigenous community has been given. The government through the Minister of Home Affairs No. 52 in 2014 on Guidelines for the Recognition and Protection of Indigenous People which is followed up by the Government of Jayapura, through Regent Decree, Jayapura No. 319 in 2014 on the Recognition and Protection of Indigenous Peoples at Jayapura District confirms that the Government of Jayapura recognize the 9 (nine) of indigenous peoples' territories comprising; 1) Sentani/Bhuyakha consists of Ralibhu, Nolubhu, Waibu 2) Moi 3) Tepra 4) Ormu 5) Yokari 6) Jouwwarry or Tarpi 7) Demutru consists of a custom sub-region: Nambluong, Klisi, Kemtuik 8) Elseng 9) Oktim with the aim of protecting the rights of indigenous people: 1) Protection against tribal governments; 2) Protection of wealth and/or custom

objects; 3) Protection against the norms of customary law; and 4) Protection of communal rights: soil, water, air, forests and natural resources.

Protection of customary rights such as, land, water, air, forest and natural wealth contained therein is needed to do because they have economic values with the aim of meeting the financing needs of life and the need for food and clothing. It is also crucial in improving the human's well-being. People to have a better life will be fulfilling the daily needs, they are therefore required to manage natural resources and preserve them so that the principle of benefit and priority needs to be taken into account that ecosystems and natural resources are maintained and available. The growing population and higher economic needs are factors that deplete the availability of natural resource. Local wisdom that was once the customary law community are well preserved to be eroded by the problems of economic necessity. That requires a research and study indigenous-based economy that will explore natural resources as the major economic activities of indigenous people, the way of nature management, maintenance of the existence of biological resources and vegetable. In order protect local wisdom from being marginalized and getting lost due to the influence of the modern economy and liberal economic system, local government strategies are importantly needed, so that existing economic systems of indigenous peoples in accordance with modern economic system do not leave the local wisdom. This research was conducted in order to explore what are the sources of the economic potential of the indigenous peoples in Jayapura district? How is it to utilize local wisdom in developing the economy of indigenous peoples? What are Government strategies to improve the economy of indigenous peoples? What are the rights and obligations of indigenous stakeholders in the management of natural resources to support the economy, especially the indigenous peoples?

## **2. Methodology**

The location of this research is in Jayapura regency. It is mainly based on the consideration that the Jayapura regency is a regency surrounded by coastal Sentani Lake, hills and oceans. Additional information is that in some districts/villages in the regency, coastal communities have local knowledge (rituals) related to the natural resource management of coastal, ocean and hills. The population in this study are all the Local Customary Council (DAS) where there are 9 DASs and the sample in the study is two (2) existing DAS namely DAS Sentani and DAS Moi. Data needed in research data were sourced from primary and secondary data. The primary data obtained directly from respondents through interviews and observations while secondary data obtained indirectly/through a second party by studying the documentation or literature. The sampling techniques used:

- Location village used sampling region techniques (area probability sample): The sample is done by taking representative of each village contained in the population (Arikunto, 1997). It is based on the consideration of traits or characteristics of the areas in terms of the natural resources and values of local wisdom that only exist in the location or region.
- Community leaders (Old Traditional/Indigenous Stakeholder): they are non-formal institutions that grow up around the community and seen to understand the problems of indigenous rituals associated with resource use and management which hereinafter be referred to as key persons. Determination of key persons can be done by using purposive sample or a sample of a particular purpose and done by taking the subject not based on strata, random or region, but based on their particular purpose (Arikunto, 1997). The determination of key person in this study is carefully selected and tailored to target the achievement of the required information in the study; the number of respondents for each of the selected villages is more than 7-10 people.
- Village government: It is a formal institution that grows and develops around the coastal areas that are considered to understand the problems of utilization and management of coastal and marine resources as well as the values of local wisdom that live and thrive in coastal communities. They are the head of village, secretary, hamlet head, and former head of the village. Samples of each village are about 2-3 people.

The approach taken in this study is a qualitative approach. Researchers use triangulation methodology to collect data on the overview of local knowledge. Triangulation methodology used is a combination of data collection techniques using in-depth interviews, observations and secondary data analysis. The qualitative data is presented in the form of a diary. The contents of the diary are the results of observations, interviews, and excerpts from various documents (Sitorus, 1998). Miles and Huberman (1992) as cited by Sitorus (1998) define the stages of data analysis as follows:

- Data reduction is the selection process, focusing on simplification, abstraction and transformation of "rough" data that emerged from the notes written in the field. Data reduction is a form of analysis that sharpens, classifies, directs, disposes of unnecessary information, and organizes data in a way such that the final conclusions can be drawn.
- Presentation of data is a set of structured information that gives the possibility of drawing conclusions and taking action. Presentation of data can take a variety of forms of narrative text and matrices, graphs, networks, and charts.
- Drawing conclusions in this case includes how to verify the conclusion that the way: rethink during writing, a review of the records of the field, review and exchange of ideas among peers to ensure the sharpness of the conclusion made.

**Profile of DAS Sentani/Bhuyaka:** Sentani area is situated along the Sentani Lake and divided into the west, centre and east part entered in the District of Sentani at Jayapura regency, while some areas in the eastern part of the entry into the territory of the city of Jayapura. In the indigenous peoples, Sentani tribe itself is traditionally divided into three sections namely Eastern Sentani, Central Sentani and Western Sentani. This division is based on two factors: firstly, the accent of the language and the second, the traditional leaders. In Sentani there are three major Ondoafi called Hu Ondofolo where western part of Sentani is occupied by Marwery family, eastern part by Ohee family and Central Sentani by Eluay family. A leader in the indigenous community of Sentani is known as Ondofolo or Ondoafi. The Ondofolo or Ondoafi is the head of custom government obtained from generations, especially inherited by the eldest son of the wife or the oldest first son. So that, the system of leadership or authority in indigenous communities in Sentani is called "Ondoafi system". In his position and responsibility, under Ondofolo or Ondoafi, there is *koselo-koselo* or chieftain who sometimes is also called "Keret" and there is always *koselo* to lead in each tribe. Ondofolo oversees the village with his power and can act as *koselo* for the village.

Ondoafi has the authority to resolve disputes that occur in the area of power. Ondoafi also reserves the right to announce a war or protect the people in the region. In essence it can be said that Ondoafi functions as public protector. Based on traditional practices that have been done, Ondoafi may take more than one person, but a maximum of 5 (five) people. In the governance system of Indigenous Sentani, there is formal government system in the form of village government and non-formal governmental system or called traditional government (custom government). Village is the lowest government in the unitary state of Indonesia under the sub-district administration. The traditional government (custom government) is a native Sentani government that has existed since the time immemorial hereditary. The total area of custom (traditional) administration is not always the same as that of the village. However in the reign of the Netherlands, the area of the custom administration was same as that of the village administration. Leadership positions were into one that could lead to the multiple roles. His name was also different, where the head of the custom administration was called *Yo Ondofolo* or *Ondoafi*, while the position of village head was called *Korano*.

**Profile of DAS Moi:** The areas of indigenous Moi community exist in the western part of the capital regency of Jayapura with the distance of approximately 25 km, using two-wheeled and four-wheeled vehicles. Their territory is among *Tepra* and *Yewena Yoosu* at the north, *Kemtuik* at the south, *Bhuyakha* at the east and *Yokari* at the western part. The customary law community *Moi* have similarities in language, physical traits, character and social values and culture, politics, economics, and customary law with indigenous communities *Klesi*, *Nambluong* and *Kemtuik*. This is due to several things, the first, they have territorial proximity and the second, they have social, cultural and economic relations built on a regular basis, and the third that they have a historical linkage relationship with the ancestral origins. The ancestors of customary law communities *Moi* began their life to settle and organize the group in an organized social structure. They built a large system of monarchy with a head of government called *Done*. They arranged their structure in five areas where all these five areas support each other and *Done* as the head of government, *Trang* as the manager of customary law, *Tekay* as acting government, *Bemey* as economic and financial managers as well as *Srom* as managers of household. Post-entry of the church and the formal government during Netherlands era, the original rule was considered as a barrier because people are more obedient to *Done* than *Korano* (village head appointed by the government).

In the bigger unit of the indigenous peoples, *Moi* is divided into four sub-tribes: *Kwansu Mlab*, *Kleku*, *Damaiblo*, and *Moi Pay*. These groups are divided in three regions in the topography of the landscape that is located in the hilly area (*Iwalom*), the slope (*teble-teble*) and the lowland (*Pay*). Indigenous *Moi*

community in general are profoundly ignorant of the law or rules that are formally set up in detail and the provisions for sanctions. However they know and have awareness that there is a ban and if broken, there will be negative impacts, known as a punishment. Penalties or sanctions generally is not just borne by the offender himself but could involve the family, relatives, and more on the responsibility of the custom government or village. In Moi's social life, people generally recognized the norms of social nature in which they have no sanctions or penalties. However, due to their belief in the meaning of a ban then there will be an indirect result, for example, the perpetrator experiencing pain in various forms. In this case, the perpetrator could be cured if the apology and forgiveness are given by the owner. The second is the norms of customary law which every action there will be a sanction given to actors, either in the form of sanctions or corporal punishment (body) or in the form of fines with the provision of material. Liability to punishment or sanctions in the form of fines (materials) usually is not only borne by the offender but involving family, relatives, and even entire villagers.

### 3. Results and Discussion

DAS Sentani/Bhuyaka The research focus in DAS Sentani/Bhuyaka lies in Yobeh village as one of the 6 (six) villages mentioned in the administrative area of the district of Sentani. The village is located in the southern district of Sentani, about 10 km reached by a wooden bridge made by local villagers.

- a) **Economic conditions of DAS Sentani/Bhuyaka:** People's livelihoods in Yobeh, DAS Sentani are farming, fishing in lakes and tapping sago. The management of farming still applies traditional patterns such as, opening new land, left the old land and continue to repeat the pattern. For those who live and settle in Komba, they are already familiar with the fixed agricultural system where they used fertilizers to increase production and fishing is thus already using more modern methods. Those who live in areas of the island are still using traditional ways, such as, fishing, using sumput and balobe.
- b) **Potential of Natural Resources of DAS Sentani/Bhuyaka:** Daily activities of local people are finishing and farming. In farming, the society is still using traditional patterns where they clean the land, cut down and burned and then planted. The land that has been used will be left to open new land and this is done continuously. Potential Sentani Lake near the village makes most people work as fishermen or bumerau (an expert in catching freshwater fish in the Lake). Other livelihood owned by the society is sago gatherers, civil servants and private employees.

This study summarizes the results from interviews taken with key informants following:

*(Translated) "Potential resources that exist in Yobeh is a lake, providing fish and there is also nature that provides sago. The nature is provided from ancestors like sago palm used for consumption of staple food for villagers". - The head of the village*

*(Translated) "The daily activities of the people here are catching fish in the Lake, taking vegetables and firewood and taking a boat to go to the next village" - One of the residents*

*(Translated) "Resources are the potential sources of nature such as vegetable, nut and sago. In addition they have a small fish farm under their homes ". - Ondoafi*

The results of interviews conducted with key informants found that the potential of existing resources in Yobeh is Sentani Lake as a provider of freshwater fish with different types. One informant suggested that some residents have freshwater fish ponds under the house in order to then be sold to customers or for the purpose of personal consumption and family. Sentani Nature generates potential sago trees that have become the ancestral heritage and been inherited for a long time. The sago palm then has become the staple food of the local community in addition to the rice which is always consumed by the public. Natural resource management is still done traditionally and in groups despite the advances in the technology information that already exists and affects the pattern of life and livelihoods. In addition to managing natural resources, Sentani community also conduct hunting activities where those are skilled in hunting called Jeremeu. Animals often hunted are pork consumed in the family or used for traditional events. Interviews with other key informants found some potential natural sources of the local area, like, water spinach, coconut, corn and nut where those who are experts in farming are called Fimereu. Villagers usually manage their resources in simple ways, part of these resources are then sold and the rest is consumed for daily life. The study found that the revenue from the natural resources sale is then used to fund the school children and for the cost of eating and drinking every day.

The potential for freshwater fish, sago, coconut, areca nut and other natural resources can evolve when there is a commitment from all parties, both government and local communities. The support can come from internal or external. Support from the government in this case does not imply the dependence of society and the government, but the type of assistance will provide motivation to work for the community. The results of interviews also found some support from the government in the form of the village's financial assistance program namely Anggaran Dana Kampung (ADK) where the village government received twice process of funding. These funds were used to buy seeds for the continuation of farming fish or farming equipment to create more income. Other supporting factors are derived from the availability of the boat. The study found that because most people in Yobeh work as fishermen, the boat as a means of transportation is so important. Good weather is also considered as a factor in favour of their work.



Fish Pond owned by Sentani man

**c) Local wisdom:** Local Wisdom from the society Yobeh, DAS Sentani in various product and culture:

- The Lake must be kept clean, must not be poisoned by drugs.
- Sunday is established as a day of worship and prohibited from engaging in economic activities.
- Economic activity needs to be done in work together. Especially in cultural activities, residents flocked to collect their harvest and donate to the chiefs for cultural activities.
- Not allowed to take indiscriminate when local people make the traditional feast.
- Comply with the rules and abstain from restrictions or taboos established by Chieftains.

There are rewards if the community obey and sanction if disobey the local wisdom:

- a) The consequences of being obedient to the local wisdom, children as well as their offspring would be healthy and not be problematic.
- b) If taking goods that are prohibited, it will be sore ulcers.
- c) If disobeying the local wisdom, they are ostracized by the community. Not getting a good reception from the public although it remained and settled in the region.

Management of natural resources as well as its potential cannot be separated from the local knowledge possessed and sourced from individuals whose behaviour becomes habits and have normative binding. Compliance with the rules and consideration of sanctions binding Yobeh society in managing natural resources by the rules of local wisdom has been passed down by our ancestors long ago. This belief then shapes the mindset and behaviour of the population in the management of and utilization of natural resources. Local wisdom in the management of economic resources in DAS Sentani, Yobeh village although at levels of folkways, it is indeed based on understanding the principles of ecology and ecosystems. Wisdom is packaged using a simple language in the form of a philosophy which contains substances of values and norms. The most significant reference source of the economic activities of local communities is derived from the values of the Christian in which people are required to attend worship on Sundays so that their economic is waged in the days of their lives. The adherence to the rules and

restrictions imposed by the Indigenous Chief become something that must be considered by the society considering the sanctions to be imposed when violated.

**d) Strategy-Based Economy Improving Indigenous DAS Sentani/Bhuyaka**

- The fishermen need to be given training in how to find or catch fish using modern methods while maintaining the balance of natural ecosystems.
- Need for local economic development in developing local products like fish, sago, coconut and nut, vegetable and emphasize the empowerment of local existing potential through the involvement of indigenous people in order to create prosperity. Special training to improve skills in local economic development efforts also need to be done.
- Develop production centres (fisheries, agriculture, farming, trade and services) as well as the targeted marketing and sustainable distribution channels for local communities.

**DAS Moi:** DAS Moi community live in the areas of West Sentani District consisting of 5 (five) villages namely Sabron Sari, Sabron Yaru, Dosay, Wabron and Maribu. Information about the natural resources and local knowledge of DAS Moi is more focused on Dosay village because the Ondoafi is domiciled in that village. However, the research describes the economic conditions of DAS Moi are much directed at the West Sentani district.

- a) Economic conditions of DAS Moi:** Agriculture and livestock in the DAS Moi have considerable potential to generate revenue for local residents. The results showed that the population of livestock such as cattle have a sizeable number of nearly 1,852 where Maribu has the highest number of cattle compared with other villages, followed by Waibron and Dosai. A small number of livestock in this DAS are goats and pigs where Maribu have the largest number of pigs and goats and followed by Sabron Sari and Dosai. Yabron have goats and pigs with the smallest number other than four villages. The plantation sector in this community showed extensive plantation of coconut and chocolate plant species occupying a sizeable amount. Cocoa plantation land is around 601 ha and 297 ha for the coconut. In the sector of trade and industry, the results showed that the Maribu have one trade sector in small and medium classes as well as the home furnishings industry. The mining sector is also seen in several villages in DAS Moi namely Dosai and Sabron Sari and this sector needs to be developed because of its ability to generate income for local residents.
- b) Potential of Natural Resources of DAS Moi:** Natural resources owned by DAS Moi potential for the creation of income for the local population are the results of mining, usually called category C (Golongan C), Damsari River (Kali Damsari) and gold mine (Waibro) which nevertheless are still using traditional tools. Results found that regardless of the region's potential owned by this DAS, the activities and work of the people in each village almost equal. Majority of the population in Sabron Sari work in the field of agro-tourism and gardening on their own farms. Sabron Yaru residents have activities in the field of agriculture, livestock and gardening, while residents of Dosay farming and animal husbandry but many work as civil servants, police and private employees. Majority of people in Wabron and Maribu work as farmers where some manage sago for sale.

Regardless of differences in DAS Moi's livelihoods from each village, the significant result of the earth is the result of mining "category C" where the stones will be collected with heavy equipment and then delivered for rock orders. Tourism potential called Kali Damsari used as tourist attractions that could potentially generate profits need to be managed properly in order to be clean so that visitors feel comfortable when visited. In addition, great natural potential in this DAS is suitable for farming activities to produce banana, durian and rambutan which can be sold on the market or in front of the house. Here are the results of interviews with key informants in this study:

*(Translated) "The result of mining is called "category C" (stone), attraction place (Kali Damsari), gold mine (waibro) but still using traditional tools. Stone will be collected with heavy equipment and then delivered to meet the order. Keeping the attraction places well and clean so that visitors will feel comfortable, providing a decent place to rest as lodges. Plantation crops such as rambutan, durian during the season can be sold to the market or in front of the house ". – The chief of the district*

*(Translated) "..... . natural resource owned (potential) is Kali Damsari and mine c (rock)" - Management of DAS Moi.*

Although the majority of the population are farming and fishing, some residents also have fish ponds which can be used for sale or consumed by the family. Some factors in favour of the management of natural resources in DAS Moi is the quality of fertile soil for agriculture and plantation. Moreover, because the large land area with plenty of vacant land in this DAS, it is then used to raise cattle. The obstacles to the management of natural resources are the lack of ability to manage the existing natural resources, limited skill and knowledge and lack of equipment. This is due to lack of professional consultation provided by the government. The results showed that some consultation has been done despite in traditional ways.

The results also show that some of the government programs used for the management of natural resources is ADK fund, for example funds for cottages in Kali Damsari and for farmers in the form of seeds saplings pigs. Some mentoring programs are also conducted for agricultural production through the assistance to maintain cleanliness in the places of tourism. The results also found that in addition to providing information, the government also provides an assistance of fertilizer to the owner of the garden.



Handy crafts from one mother in DAS Moi

- c) **Local wisdom:** Some local knowledge possessed by the inhabitants of DAS Moi affects how people use and take advantage of the resources. Types of local wisdom are explained by the underlying sanctions.
- It is recommended to residents for not too often dig rocks because there is a negative impact of quarrying stone.
  - Day of the week established as a day of worship and prohibited from engaging in economic activities on Sunday.
  - Trust in God is more important than other things.
  - Prohibition to go to the "rawa gantung" or hanging bog during the working day because it is believed that anyone who entered that place would never return.

There are rewards if the community obey and the sanction if disobey the local wisdom:

- Those who are not obedient with the values in the form of local wisdom in the community will feel discomfort in life and feelings of guilt to others and to him.
- Non-compliance could cause some pain that is not understood and if compliance to the local wisdom, life be given tranquillity and no security problems.
- Excessive fear to interfere with a person's psyche as a result of disobedience.

The values classified into the culture and local wisdom in DAS Moi have been much influenced by the belief in God. The inclusion of religion in public life makes people hold the values taught in religion and their beliefs. The sanctions that are binding when there is infringement of an individual or group still use traditional belief in nature. Local knowledge possessed in principle moves from values to maintain the balance of nature which is God's creation. This trust was established to preserve and protect natural ecosystems with all that is in it. Nonetheless, local knowledge possessed is not regulated in societal norms and written rules.

#### **d) Strategy-Based Economy Improving Indigenous DAS Moi**

- Need for local economic development through the provision of training in developing local products such as corn and other crops.
- Need to develop the potential of natural resources Gol.C are like mining, tourist attractions Kali Damsari, gold mines through sufficient promotion to stakeholders.
- Develop centres of production (agriculture, farming, trade and services) as well as targeted marketing and distribution channels are sustainable for the community in order to improve welfare.
- Encouraging new investment in any field of business in the area locally, nationally and internationally through the promotion of sustainable reply.
- Facilitating the development of partnerships with forums for dialogue involving all stakeholder to think of the way in the development of local economies.

#### **4. Conclusion**

This study emphasizes the development of the economic resources of indigenous peoples of Moi and Sentani in Jayapura regency taking into account their local knowledge. Economic development needs to consider the concept of sustainability meaning to meet the needs of the present without compromising the ability of future generations to meet their own needs. Natural resources becoming the economic potential of the region should be explored in order to meet human needs while still preserving the surrounding environment. Strategies of the government in improving the economy of indigenous peoples on local knowledge should be given in order to improve people's lives. DAS Sentani's livelihoods are farming, fishing in the lake, tapping sago and hunting animals. Their natural resources used to support society's economic life are fish, sago, coconut, areca nut and other natural resources. Some local wisdoms believed by people in conducting their economic life are in carrying out economic activities in working together or called "gotong royong" where people get together for harvest and donate some portion of their harvest to the chief for cultural activities. On account of the area close to Sentani Lake where the community use for fishing, maintaining the quality of the lake and keep it clean is therefore very important.

The livelihoods of DAS Moi's community are farming and livestock where the majority of the people work for their farm. The natural sources of DAS Moi are the mines, usually called category C, tourist attractions at Damsari River, gold mine (Waibro), sago, durian and rambutan and cattle farm. The local wisdom that bind the community in life in doing their economic activities every day are that people are required not to dig rocks too often because this will harm the environment. It is not allowed to do any economic activities on Sunday as God is more important than others. There are always rewards and sanctions in obeying or disobeying the local wisdom and the community are well understood about the consequences. Strategies need to be addressed by the government in order to improve the quality of human life for both indigenous communities. Some strategies given are that there need to be done some trainings for both communities about how to develop their local resources. Both communities need to have centre of production for agriculture, farming, trade, services in order to attract investors and the government need to support it. It is also important to have the targeted marketing and distribution channels so that both communities understand clearly about where to sell their products to outside.

The local government must maintain to protect and preserve the mainstay products of the region as an asset. The government should keep a mainstay product not to disappear from the area and to provide an open space for manufacturers to develop regional flagship products and business development. Considering the important role of local communities in conserving the environment, it is important to maintain and protect the actions of the community which is a form of local wisdom. Communities need to be trained how to use natural resources in more practical, effective and efficient ways. Creative economic development also needs to be done, especially for small businesses population. Local governments need to find or create regulations for small or middle businesses about how to well manage the natural resources on a regular basis and the use of technology should environmentally friendly in the production process, so it does not damage the environment.



## Reference

- Arikunto (1997). *Prosedur Penelitian Suatu Pendekatan Praktek*, Rineka Cipta, Jakarta.
- Hadi, S. (2009). *Indonesia Abd XI di Tengah Kepungan Perubahan Global*, Penerbit Harian Kompas, Jakarta.
- Minister of Home Affairs No. 52 in 2014 on Guidelines for the Recognition and Protection of Indigenous People.
- Regent Decree, Jayapura No. 319 in 2014 on the Recognition and Protection of Indigenous Peoples
- Sitorus, M. T. F. (1998). *Penelitian Kualitatif: Suatu Perkenalan*. Kelompok Dokumentasi Ilmu Sosial IPB. Bogor.
- Special Regional Regulation (Perdapus), Papua Province No. 21 in 2008 pertaining the Recognition of Customary Land Rights of Indigenous Community.
- Suhartini (2009). *Kajian Kearifan Lokal Masyarakat dalam Pengelolaan Sumber Daya Alam dan Lingkungan*, (online), Tersedia: <http://staf.uny.ac.id> (9 October 2011)