

Analysis of Cultural Landscape in Forest Management by Indigenous People of Sahu Indigenous people in West Halmahera Regency, North Moluccas Province

Agustinus Kastanya¹, Thomas Silaya², Astrid Mailoa³

¹Guru Besar Perencanaan dan Ekonomi Sumber Daya Hutan Universitas Pattimura Ambon

²Taf Dosen Jurusan Ke Shutanan, Fakultas Pertanian Kehutanan, UNPATTI Ambon (Ketua Program Studi Kehutanan)

³Pegawai Dinas Tata Kota, Kabupaten Halmahera Barat (Alumni Program Studi Management Hutan, PPS, UNPATTI Ambon)

Abstract— *Traditional and cultural landscape has a conservation value that is linked to the continuance of traditions, so that the landscape doesn't only exist for functional or visual, aesthetic reasons but also has a responsibility to local culture. The aim of this research was to (1) determine the relationship between education level, age, amount of family expenses and land area on income level, (2) determine the existence of native land rights for the Sahu indigenous group, (3) determine community perception of the importance of cultural landscape organisation in forest management, (4) formulate a concept to conserve cultural landscape in forest management. This research was done using the descriptive research method with a quantitative and qualitative approach. Analysis of the chisquare showed that factors outside of the land had an influence on the level of community income, while general factors, like education and amount of family expenses did not. The Sahu ethnic group had traditional land rights in forest management because of community agreement through the traditional legal council. This council satisfied the specific characteristics on the subject of native rights, existence of specific boundaries of the land as lebensraum which is an object of native rights, and the existence of a traditional, legal community authority to take specific steps. In macro the organisation of the landscape in the area covered by the Sahu ethnic group is divided into forest, housing and agricultural areas. The forest area surrounds the agricultural land and the residential area. In micro, the arrangement of the cultural landscape which surrounds the housing area is classified by the local community as Bangan, La'lat, raki, jeramedansosoki. Continuity of the organisation of the cultural landscape in forest management appears in quadrant 1. This position demonstrates that continuity of the cultural landscape in forest management faces some threats but still has internal strength.*

Keywords— *cultural landscape, indigenous community, native rights.*

I. INTRODUCTION

Landscape is an area of earth which has a complex system including rocks, water, air, plants, animals and people and its physiognomy creates a whole which can be recognised. Indonesia is renowned for its variety of cultures and ethnic groups complete with all of the cultural attributes. Culture is the characteristics, identity or uniqueness of a country or its people. Forest is a natural source of potential which has as a very important role in continuity of development.

The indigenous Sahu group are a traditional group who live in and around the forest which they manage from one generation to the next. The siting of the village beside the edge of the forest allows the Sahu people to make use of the forest resources to meet their daily requirements. The ancestors of this indigenous group have already bequeathed the land and its abundant natural resources to them; however the group has been badly treated by the policy of accommodating investors like PT Oro Kni Global (Mining Company C) which has dominated the tribal Sahu land area. The concern about the consequences for the continuation of indigenous Sahu management of the forest is the background of this research. It is hoped that this research will provide a basis for preservation of the characteristics of land and forest management by the Sahu indigenous group of an area which is unique in its own right.

The research aimed to:

1. Analyse social-economic aspects of forest management by the Sahu indigenous community
2. Determine the existence of tribal rights of the Sahu indigenous people
3. Determine community perception about the importance of traditional forest management compare to importance of other land use
4. Formulate a strategy for conservation of the terrain through forest management by the Sahu indigenous group

II. METHODOLOGY

The research was carried out in West Halmahera Regency in the North Moluccas province. This research was conducted over a three month period from February 2015 until April 2015. Tools used in the research was: camera, writing materials, GPS, map of research area, questionnaire. Other materials included the condition of the village inhabitants, condition of the terrain, forest resources in the research area.

The sample villages were selected on the basis of the existence of the indigenous Sahu people who lived in and around the forest area. The number of sample villages selected was decided using the purposive sampling approach. The choice of respondents was done using *acak* sampling (PSAS) and Snowball sampling. Data for this research was collected using interviews, direct observation and textbooks/documents.

The methods used to analyse the data in this research included:

- Analysis of the socio-economic aspects used the Chi-square model

$$X^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}} ; e_{ij} = \frac{\sum i \sum j}{\sum ij} \quad (1)$$

- To determine the existence of customary rights over indigenous land Sahu, the research findings were collected and analysed qualitatively systematized
- Public perception of the importance of the order of the cultural landscape of forest management using participatory mapping methods and Distribution Gravel (Pebble Distribution Method)
- Formulation of a concept for preservation of the terrain through forest management by the Sahu indigenous group used the SWOT analysis.

III. RESULTS AND DISCUSSION

3.1 Socio-economic aspects of forest management

Interaction between the Sahu indigenous people with forest resources takes place through the social and economic activities of the people who live near the forest to meet their day-to-day needs. The results of the chi-square test showed that overall education level, age and family expenses were not partially significant factors on the farmer's income, while the amount of land was partially significant on that income. Based on these results it was clear that there is a concern about long-term traditional forest management as there has been land clearing for agricultural needs which will impact negatively on the ecological function of the forest if not planned appropriately.

3.2 Historical and Cultural aspects

3.2.1 History of the Sahu indigenous group

The process by which the Sahu indigenous people had ownership, took charge of and kept quiet about their region is a long one, as long as the history of the people. There were five processes involved in forming villages by the indigenous group called: *Calaisa*, *Suyu/Sungu*, *Kekecong*, *Dous* and *Gam/Kam*.

- Calaisa was the first step in forming a village. The Sahu tribe did not live long in one place and were still in the process of building houses with no walls from the leaves of the forest areca nut tree. They depended on hunting and farming so only planted things appropriate to their nomadic existence.
- Suyu/Sungu – in this step the group had houses still made from the same
- Materials but with walls or dividers and were also still planting appropriately for the nomadic lifestyle.
- Kekecong – by this third stage there was some development in that the group was already permanently staying in the one place and had better houses, along with plantings more suited to permanence.
- Dous – by this stage development was much faster. The group needed a bigger land area; some people already had much better houses and gathered in family groups according to surnames, and farming was more organised.
- Gam/Kam – this step saw a merging from Dous of those who had been separated and most people had permanent houses. This was the step that provided the foundation for a village.

3.2.2 Existence of native rights for the Sahu indigenous people in West Halmahera Regency

The existence of traditional law for the Sahu indigenous group is covered in Regulation Number 41, 1999 covering Forestry in paragraph 67, Clause (1) which states the existence of lawful native rights as long as particular elements are fulfilled:

a) The people are still associated

The Sahu indigenous groups are tied through a patrilineal association. This system forms the basis of family descendancy, the norms of marriage and the mechanism of inheritance. The continuity of the rules and mechanisms in this community are organised and decided based on the kinship system according to this patrilineal lineage. The Sahu indigenous people are a united community through associations based on family through genealogy and territory.

b) There is a body in command of tradition

The Sahu tribe has two government structures; government from the time of the sultanate before the gospel was brought to the region and government following the collapse of the sultanate.

Together with the era of development, in 2008, based on the mandated regulations of West Halmahera regency, Regulation Number 8 which served to protect, look after and preserve the customs and traditions which had been left by the Sahu tribe's ancestors, a Council for Sahu Native Traditions was set up (Ji'oTalai'rePadusua), along with a Village Traditional Council with the following institutional structure:

c) composition of the Traditional Council of the Sahu Tribe

- Board Advisor – a leader from each leading family group in the sahu tribe i.e. *Mangimour Beskanyima* from Idamgamlamo village, *Mangimour Tolu* from Loce village, *Mangimour Kamiding* from Tacim village, *Mangimour Sigegel* from Balisoan village. *Ngumor Barakati* from Worat-worat village, *Ngumor Letter* from Taraudu village, and *Ngumor Doe-Doe* from Gamnyal village.
- *Mangimour* is the leader of the *Ji'oTala'I Padusuacouncil* of customs and traditions.
- Deputy *Mangimour* of the Council and comes from the *Tala'i* and *Pa'dusua* ethnic groups.
- *JuruLefo/Ngale Magugeis* is the person tasked with organising the business of the Council.
- *Galib Re Lakodiis* is the person concerned with the law.
- *Dodoto* is the person concerned with education.
- *Tubaie Re Masolesis* is the person working with the youth.
- *Marinyois* concerned with community relations.
- *Kapita* is active in safety

d) Village Traditional Council

The management of this institution consists of Fanyira (Chairman), JuruLefo(Secretary), NgaleMagugu (Treasurer), FofatoDodoto (Education), FofatoMahukum (Law), FofatoMarinyo (Community relations), FofatoTubaiye (Youth), FofatoKapita (Safety).

e) A clear traditional legal area

According to their history, the Sahu people's concept of native land rights is based on:

- *Aha Kolano*: *Aha* comes from the word *Kaha* which means land and includes the concept of rights i.e. land ownership rights. In fact all land is *Aha Kolano* or Sultan's land, in the sense of Crown land, as it doesn't actually belong to the Sultan personally. The people were allowed to take any sago (food source) and bamboo (for houses) for their needs.
- *CucatuKolanois* traditional land given by the Sultan to the people through written consent. The area given was measured in *depa*, 1 *depabeing* 1.7 metres; a measurement of 10 *depawas* called a *taran*.
- *Raigurawasland* managed by community or family groups in accordance with their ancestry, i.e. those whose surnames were *Beskanyima*, *Tolu*, *Kamiding*, *Sigegel*, *Barakati*, *Leter* and *Doe-doe*.
- *Jerame* wasland managed by an indigenous community group or family which had already felled trees, cleared the area, planted perennial and one or two annual crops then had left. Usually there was a sign showing the land limits, such as a stone or bamboo fence or a natural border.

Along with the changes in the Sahu group's lifestyle, what, in the beginning was a regional tribal alliance, was developed into villages under the sub-districts of Jailolo, Sahu and East Sahu, the Regency of West Halmahera. Development in the construction area impacted on development in land matters.

The land claim of the Sahu Indigenous Group included 29 villages in the Jalilolo sub-district i.e. Idamdehe, IdamdeheGamsungi, Taboso, Hoku-hokuKie, Gamtala, Lolori and Akediri. It also included the East Sahu sub-district with villages of Akelamo, Gamomeng, IdamGamlamo, Awer, TarauduKusu, Aketola, Tibobo, Hoku-Hoku Gam, Gammial, Campaka, Ngaon, Gamsungi, TaboCampaka, Goal and GolagoKusuma. The Sahu sub-district claimed included the villages of Golo, Tacim, Worat-worat, Todahe, Tacici and Taraudu.

f) **Regulations and legal systems still adhered to in traditional Judgements**

The Sahu indigenous communities have regulations and traditional legal systems to settle relationships between people within the community or between others in the same area, which includes judgements bringing sanctions on those who flout the traditions. An example of a social offence would be hitting someone else's wife with the side of the hand which would command a fine counted in coins called *reyal* with five of these being 800,000 rupiah (one *reyalis* about one hundred and sixty thousand rupiah). To threaten someone will bring a fine of 2.5 *reyal* or Rp 400,000, while the payment for the administration of the judgement will cost one *reyal*, or about Rp 160,000. For the winner of this dispute 10% is cut from the legal payment for funds for the village's Traditional Body. The same applies for offences against the regulated conservation of the environment which is done both through tradition and the church. The sanction for offences against these traditions is counted in *reyal* but those offending against the church are given moral sanctions.

g) **Arrangement of sustainable harvesting of the forest area for the community's daily needs**

The native Sahu people in the villages of Lolori, Gamtala and Akelamo still organise sustainable harvesting of the surrounding forest to fulfill their daily needs. This sustainable harvesting is important for the communities in these three villages where the research was carried out and can be seen in the contribution of the forest to the average income.

The existence of the Sahu indigenous group is a historical reality which cannot be avoided or denied. This group is a real part of the traditional associations which exist in the West Halmahera Regency in the North Moluccas province. The Sahu indigenous group has a real traditional area because within it are resources consisting of land which supplies the livelihood and daily needs of this community. Hence, it can be said that the Sahu indigenous group still has a lawful traditional association.

The Traditional Council *Ji'OTala'iPa'dusuha* has a constitution published by the notary Helmy SH, MKn No 69 tahun 2014, and was registered with the Ministry of Law and Human Rights, Indonesia No : AHU-00453.60.10.2014. It is hoped that the formation of the Traditional Council of the Sahu Indigenous group will work to raise community understanding about the importance of conservation of culture and resurrect creativity in daily happenings.

The existence of native rights for this group is strong and fully active, being linked to the use of natural resources (forest) based on section 67 paragraph (1) of Act number 41, 1999. This law states that the Sahu indigenous group have the right to:

- Harvest the forest sustainably to fulfill their daily needs
- Carry out forest management in accordance with traditional law and not in contravention of the act above
- Organise capacity building to increase prosperity.

3.2.3 **Philosophy of the Sahu Group**

A strong community is one which has a life philosophy by which everyone lives. The Sahu indigenous group is a community with such a philosophy reflected by the traditional house or Sasadu.

3.3 **Cultural Landscape of Forest Management**

The cultural landscape of the area managed by the Sahu indigenous people consists of rice fields, farm plots, fields, river and forest. In managing the landscape the methods used, and their development, are decided by the culture and the traditional laws in the community. This management is evident in the way the people use the forest, the farming land and the settlement area of the land traditionally owned by the Sahu indigenous people.

3.3.1 Elements of the cultural landscape of forest management

There are two elements of the cultural landscape management of the forest i.e. tangible and intangible elements.

3.3.1.1 Intangible elements

- **land use and activities**

The land use practiced by the Sahu indigenous people can be seen in the three villages sampled in this research. The cultural landscape, as stated before, consists of forest, farm land, rice fields, river and settlement.

The Sahu people are known to live through farming which is passed down from generation to generation up to current time. Various commodities are harvested from the forest, including timber, honey and animals (from hunting). From the fields commodities include rice, cassava, sweet potatoes and taro while from the rice fields, of course, there is rice. Climate, fertile soil and an abundant supply of water in the area managed by the Sahu people are important factors for this agricultural land area.

The forest area covers about 48% of the three sub-districts, inside which is found the Sahu people. Basically the forest is a reserve for the Sahu people to increase the area of the settlements which usually begins with land clearing. In the same way other land, formerly forest, was allocated a different function by the Sahu people, becoming farmland. Plants selected for the agricultural land included cacao, nutmeg and cloves, called *rakiby* the Sahu.

The rice fields are also land which was converted from sago forest (*LalatBa'u*) to wet rice fields. After the rice fields, the land use changed again to become agricultural fields (*guda*); these fields were originally primary or secondary forest and cleared by the people. The people in the sampled villages of Gamtala, Lolori and Akelamo, traditionally, did not have prohibited forest; however they do have mountain forest within their traditional area. This forest is looked after and protected by the traditional owners and also by the government. Forest management and harvesting is carried out by families who have been given the right to do so, however not all families are permitted to take part in this management due to having another source of income as a civil servant, a business person or other. Other land use elements in this traditionally owned land area are shown in table 1.

TABLE 1
TYPE OF LAND USE

Land Type (Sahu Language)	Type of land and explanation
<i>Gam</i>	Settlement in <i>Gam</i> has what is needed for the village's existence such as: <i>Sasadu</i> (Traditional house), a symbol of the unity of the traditional legal community a) <i>Ngoarepe</i> , traditional legal community in territorial authority of traditional law
<i>Bangan</i>	Forest with a lot of natural potential like water, tree species, animals, air and others. For these reasons the people look after and conserve the forest.
<i>Raki</i>	Farm: where non-sago plants are cultivated
<i>Guda</i>	Field
<i>Ake</i>	River
<i>Lalat</i>	Swamp – under water for several months per year
<i>LalatBa'u</i>	Sago forest where sago grows both wild, cultivated or regrowing from past plants,
<i>Tagisuru</i>	Hunting area
<i>TagiNgici</i>	Area for farming cows
<i>Kie</i>	Mountain – mostly covered by forest

- **Organisation of the space**

The method of spatial arrangement of the cultural landscape in forest management

by the Sahu people in the three sampled villages is almost the same. The settlement is near the river and around it are the agricultural land, rice fields, farms and forest. This arrangement shows the generational dependence for livelihood on the agricultural practices.

- **Environmental response**

Interaction with the environment is part of mankind's life whereby all man's activities impact on it. The natural environment provides a stimulus for man to adapt to specific conditions to be able to live within it. One of the ways to see this is through forest management. One of the forest products used by the Sahu people are the trees, for building homes and the traditional house (*Sasadu*). This house is built near the river because of man's strong dependence on water.

- **Cultural tradition**

Cultural traditions are activities that influence the landscape development in land use, division of land, shape of buildings and use of material things. The cultural tradition is one very influential component of landscape development in the research location, where it creates a cultural space and specific elements which form the character of the landscape.

The Sahu people also have many traditions and ceremonies, many of which are still carried out today. Many of these ceremonies use specific plants as part of completing the process of the ceremony. The Sahu people have a traditional house (*Sasadu*) whose meaning stems from the words *Sasa-Sela-Lamoi* which means big and *Tatadus-Tadus* meaning protected. The Sahu people are a religious, agrarian group whose beliefs, which have been followed since the past, are primitive, animistic beliefs consistent with an agricultural livelihood.

3.3.1.2 Physical elements

Apart from the intangible elements above, the cultural landscape of forest management also has tangible features such as transportation access, the extent of the region, vegetation, buildings and structure.

3.3.1.3 Transportation access

In the past the Sahu people accessed the forest on foot before the advent of motorbikes. To transport the harvest from the forest they used a simple cart pulled by a cow. Following the development of the region, asphalt roads were built to facilitate the people's access to the forest, the farms and the rice fields.

a. Vegetation

Vegetation in this region has various functions including aesthetic, physical, economic, traditional, medicinal and as a staple food source. The plants include those growing naturally and those cultivated by the group.

b. Building and structure

To build the traditional Sahu house the building materials need to be collected for the poles, roof and so on. These materials are collected either in the forest or from the plants that have been grown for this function. The timber selected must be of good quality, the roof made from sago palm leaves and the length calculated by the number of leaves as outlined by tradition. The number of leaves on the roof is linked to the length of the annual harvest ceremony. The roof ridge must be covered by palm fibre from the sugar palm by people from the Walasae group. Wood, bamboo and leaves from the surrounding land are the main materials, making this building one with its environment. The main vertical poles supporting this Sasadubuilding are made from *Vitexgofasus* (*gofasa*) as is the crossbeam, whereas the rafters are from bamboo as are the tiedown pieces for the sago palm leaf roofing; the floor is dirt. In essence the house is easily moved if so desired by the community.

The traditional house has special characteristics and importance in the cultural landscape of forest management as the Sahu people lived in the middle of their farmland on a daily basis and only came together in the village on special traditional occasions.

The traditional house's location in the middle of the village on the side of the road makes it easily reached for gathering all people from different villages and is the centre of customs and traditions which protect all of the Sahu community's social activities. This traditional house and its environment is the place for many traditional ceremonies so that Sahu people from each social group can socialise together to discuss any community problems. This is also the place where the candidate for family leadership is chosen to represent the family in any problems involving tradition such as inheritance, land boundaries, traditional law and so forth. This traditional Sahu house is a symbol which holds a strategic and religious position and function in shaping personal character within the requisite social norms which exist within the culture (Beolado, 2003). Apart from Sasadu, the Sahu people have Falaadatgura/walakuda, a traditional building on the farm for meetings about babari whereby all people given responsibility by the head tradition keeper participate and, also, kekecong a community farm house.

3.3.2 Arrangement of the landscape

The macro arrangement of the landscape in the Sahu people's area is divided into forest space, settlement or living space and agricultural space. In the agricultural space is the agricultural land and the rice fields which provide the daily needs. The settlement space and agricultural land are flat or sloped. This topography is not a hindrance in use of the land but has a potential which can be optimised. For the Sahu people, land is a basic need and a symbol of the existence of the people. The position of the agricultural space around the living space shows that the Sahu indigenous people work as farmers or hunters to meet their daily needs. The forest topography is sloped, mountainous and steep.

The landscape arrangement for forest management in micro is classified by the Sahu people thus:

- Bangan – an mountainous area of wild forest which has never been cultivated into fields
- La'lat(swamp)/ La'latBau(sago forest)- found near a river or stream and is always full of water, which is often used as rice paddies. The planting of rice in rice paddies has been carried out by the Sahu people since transmigration by Javanese to this area. The amount of rice produced in this system is greater than that grown in dry field planting, although the local people prefer the rice from the dry fields for taste.
- Raki – is the word for traditional agroforestry methods, dominated by cloves, nutmeg, cacao, coconut, durian and other fruits interspaced with vegetable planting.
- Jerame – former fields which have been left fallow as the fertility of the soil decreased; are owned by the families who first cleared the primary forest there. However other people may use or work on the land with the permission of the traditional owner; the plants or trees on it belong to the person who planted them as per their planting right.
- Sosoki – mangrove forest

The landscape arrangement in forest management is influenced by the view of the local people's nature-based lifestyle, cultural and daily events.

3.3.3 Perception of cultural landscape order on forest management

Evaluation of the cultural landscape on forest management was done using the Pebble distribution method, on the basis of the macro and micro landscape arrangement. From the macro viewpoint there are 6 types of land use being, settlements or villages, forests, unirrigated fields, wet rice fields, mountains and rivers. On the other hand, evaluation at the micro level gives the different types of forest as classified by the Sahu people.

The forest is the most important land for the people in Lolori, Gamtala and Akelamo villages both directly and indirectly. The forest is valued for its potential and its natural resources of water, tree types, and animals and other. For this reason the Sahu indigenous people look after and conserve the forest. The forest area within the Sahu lands extends from its natural boundaries of the mountains to the fields and wet rice paddies.

Many of the respondents said that the forest area is decreasing because people individually are clearing land for agriculture without considering the extent of the existing forest.

3.3.4 Continuity of cultural landscape organisation of forest management

Analysis of the continuity of the cultural landscape of forest management shows internal (landscape arrangement and cultural attitudes) and external factors (government policy and influence of other cultures) which impact on it. These factors are as follows:

a. Strengths

- The desire of the Sahu people to maintain elements of the cultural landscape in forest management.
- The method of arranging the natural spaces based on function of orientation, geographic location, benefits and ambience of residences which suit the local conditions.
- The traditional institution is still in control of the cultural traditions.
- Resource potential of the forest.
- The forest resources contribute to the family income.

b. Weaknesses

- Government policy giving mining permits threaten the continuity.

- There are no formal documents as yet describing the boundaries of the region.
- Increase in population and economic needs, as well as the influence of outside cultures, is causing individualism in the community.
- Clearing of agricultural land in the forest area, if it is not planned with forest conservation in mind, will gradually reduce the ecological function of the forest.

c. Opportunities

- Government policy about regional autonomy has given the opportunity to the Sahu people to develop potential and creativity in building economy, social and cultural relations.
- Potential of income and profit from forest management
- Building and planning which supports the continuity of the cultural landscape
- Can create a tourist attraction around the culture

d. Threats

- Appearance of a culture which has a negative impact on conservation of the society's traditions and culture.
- There are no regulations, as yet, in West Halmahera Regency which acknowledge the existence of the Sahu indigenous people and their traditional land rights.
- The results of the weighting, rating and scores were entered into a matrix evaluating internal and external factors and showed the following:
 - Matrix Value of the strategic internal factors i.e. Total strengths – total weaknesses = 2.1207
 - Matrix Value of the strategic external factors i.e. total opportunities – total threats = 0.4830
- The continuity of the cultural landscape arrangement of forest management falls into quadrant 1 indicating that it faces several threats but still has internal strength.

3.3.5 Conservation strategy for the cultural landscape of forest management

The organisation of the landscape and the community's livelihood is firmly regulated in the Sahu people traditional and culture however there are increasingly outside influences at play. It is feared that these influences will affect their culture and the spatial concept that has been implemented. Everyday life of the Sahu people is grounded in the culture with its long history and is focussed on nature. However good the lifestyle in the past, now and into the future it depends heavily on nature, and the forest, which is a natural landscape element with a dominant role in the traditions and culture.

The cultural landscape in forest management by the Sahu people is influenced by the natural landscape conditions and the people's cultural traditions. A society in transition from conservative to modern has strengths and weaknesses in the continuity of the cultural landscape of forest management. Government policy about regional autonomy, on the one hand, is a form of conservation of the character of the cultural landscape but allowing mining can destroy the forest management.

The conservation strategy linked to cultural landscape forest management is as follows:

- Increase the implementation of traditional culture by the Sahu people
- The community must be capable of managing the environment and the forest resources based on local knowledge and skills or are based on sustainable environmental management which retains elements of cultural landscape forest management.
- The community must be self-organised and use independent institutions to control or oversee government policy
- The community must be stronger in criticising and questioning government policy which is destructive to their environment
- Conservation strategies linked to governmental role are:
 - Government policy must support conservation elements and the cultural landscape arrangement of forest management.
 - Carry out planned land clearing to support the cultural landscape arrangement of forest management
 - Make policy about natural resources and the environment for conservation of the landscape arrangement
 - Revise the rights of allowing management of natural resources and the environment by insisting on a budget and human resources for supervising and managing the environment.

IV. CONCLUSIONS AND SUGGESTION

4.1 Conclusions

- Results of the analysis of the socio-economic aspects using the chi square test in the three research villages, showed that amount of land affected community income while general factors like education level and amount of family expenses didn't affect income level.
- The Sahu indigenous people have rights over their traditional region in forest management due to community unity and the existence of institutions which maintain the strength of the traditions; there is a clear, lawful, traditional area; there are institutions for strengthening traditions, there are legal practitioners for specific traditional processes in regard to harvesting from the forest for people's daily needs
- The continuity of the cultural landscape of forest management is in quadrant 1 which shows there are several threats but still has internal strength

4.2 Suggestions

Based on the research results, suggestions are:

- Collaboration between government and community to be increased for development and use of the land for preservation of the cultural landscape of forest management. In making decisions for the community, the government must balance the cultural traditions and the environment so that public policy is accepted by the community. The government must respect the people's local knowledge and skills in natural resource management and environmental conservation.
- It is hoped that the West Halmahera Regional government will formulate regional regulations concerning traditional villages and native land rights to ensure the continuation of forest management by the Sahu people and in anticipation of tenurial conflicts the future.
- Further research needs to be done to develop and complete these research findings by setting different problems.

REFERENCES

- [1] Alus C, 2014 Peran lembaga adat dalam pelestarian kearifan local Suku Sahu di Desa Balisoan Kecamatan Sahu Kabupaten Halmahera Barat.
- [2] CIFOR, 1999, Multidisciplinary Landscape Assessment (MLA) Penilaian Lanskap secara Multidisipliner
- [3] CIFOR, 1999 Panduan Cara Pemberian Skordan Analisis untuk Menilai Kesejahteraan Manusia, Bogor
- [4] CIFOR, 1999. Panduan Penilaian Dasar Kesejahteraan Manusia, ISCRAF. Bogor
- [5] CIFOR, 1999, Panduan Pendamping Penilaian Dasar Kesejahteraan Manusia, Bogor
- [6] Hutabarat, et al., 2012. Persepsi Masyarakat Terhadap Berbagai Lansekap Penggunaan Lahan Di Sekitar Tahura Bukit Barisan (Studi Kasus : Desa Semangan Gunung Dan Desa Merdeka Kecamatan Merdeka Kabupaten Karo, Sumatera Utara.
- [7] Hakim I, et. al, 2010 Social Forestry Menuju Restorasi Pembangunan Kehutanan Berkelanjutan, Bogor
- [8] Kharisma, et. al., 2010 Motivasi dan karakteristik sosial ekonomi masyarakat di Kabupaten Bengkulu Utara, Balai Penelitian Kehutanan, Palembang
- [9] Kementerian Kehutanan Direktorat Jenderal Planologi Kehutanan, 2011 Petunjuk Teknis Inventarisasi Sosial Budaya Masyarakat Di Dalam/Sekitar Kawasan Hutan/ Kesatuan Pengelolaan Hutan, Jakarta.
- [10] Magdalena, 2013 Peran Hukum Adat Dalam Pengelolaan dan Perlindungan Hutan di Desa Sesaot, Nusa Tenggara Barat Dan Desa Setulang, Kalimantan Timur, Bogor
- [11] Mulyadi M, 2013, Pemberdayaan Masyarakat Adat Dalam Pembangunan Kehutanan (Studi Kasus Komunitas Battang di Kota Palopo, Sulawesi Selatan), Jakarta
- [12] Nurjanah A, 2006. Studi Lanskap Budaya Kampung Ciptagelar, Kabupaten Sukabumi dan Upaya Pelestariannya. Fakultas Pertanian Institut Pertanian Bogor. Bogor.
- [13] Rahmawaty, et. al., 2008, Pengetahuan lokal masyarakat adat kasepuhan : adaptasi, konflik dan dinamika Sosio-Ekologis
- [14] Rasyd F, 2008 Karakteristik Dan Faktor-Faktor Yang Mempengaruhi Lanskap Budaya Nagari Kamang Mudik Di Kabupaten Agam Sumatera Barat. Fakultas Pertanian Institut Pertanian Bogor. Bogor.
- [15] Shell D, et. al., 2004. Mengeksplorasi Keaneekaragaman Hayati Lingkungan Dan Pandangan Masyarakat Local Mengenai Berbagai Lanskap Hutan. ISCRAF. Bogor
- [16] Yidolastiantoro, C 2006 Hak Masyarakat Adat Dalam Pengelolaan Hutan Adat Di Lombok Barat NTB