Traditional Sasi wisdom in Papua-based nature conservation

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Abstract. The existence of forests in Papua in some areas which are already inhabited has been conserved by a local and traditional ways, one of them is Sasi. This research revealed one of the positive impacts of the Sasi. The research used ethnic pedagogical approach. The qualitative data were obtained from observation, interview and focus group discussion. On the hand, quantitative data were obtained from questionnaires. The results show that the native Papuans in Merauke district (Onggaya, Tomer, and Kuler) have understood the description of Sasi. 84% of the respondents understood the history of Sasi, usability, and abstinence if violating the Sasi. Types of existing Sasi consist of the custom Sasi, the church Sasi, and the village Sasi. The Sasi was existed in plants, fish pond (swamp), water. The residents of three villages agreed that the sustainability of Sasi would be continued until posterity. The purpose of Sasi is to share welfare of using the results as well as preserving the natural environment of Papua. Naturally, Sasi can be used as a traditional natural conservation media.

1. Introduction
Humans are part of an ecosystem. Conservation is a human effort to maintain the balance of natural ecosystems. Conservation can be interpreted as an order to avoid sustained order to avoid sustained damage and extinction then humans need to safeguard and protect this earth. One way to protect the planet is with conservation [5]. Some studies indicate that tradition has succeeded in Indonesia has traditionally succeeded in maintaining and enriching diversity biodiversity through traditional conservation practice [16]. Conservation is direct management of natural resources conscious; then the bet will be sustainable (continuous) for a period that is not limited (old) [16]. The existence of local wisdom that exists applies in the community can be used as conservation of a traditional nature, one of which sasi in Papua.

Papua has a very high natural yield. This is evidenced by the results of natural resources that have been recognized nationally and even internationally. The abundant nature, however, has suffered considerable loss due to continuous exploit by humans. The consequences of excessive natural resource extraction lead to the destruction of ecosystems, especially in Papua.

Humans and the environment are two indivisible subjects, and both affect each other. The influence of nature on human beings is more passive, while the human influence on nature is more active. Fulfilling the needs of human life, the activities that people do to nature always cause damage to the environment itself. The deeper portion of nature being explored, there will usually be disasters and will have a negative impact on humans themselves. Sometime later humans will be aware for a moment, but the lapse of human generations will again try to explore excessively again, and of course, the prize gained is a disaster, people will regain consciousness, disaster again aware again and so on.
In fact, in the governmental order, it is clear that according to the Law of the Republic of Indonesia concerning the protection and management of the environment No: 32 of 2009 that the environmental damage is a direct and/or indirect change to the physical, chemical and/or biological nature of the environment that exceeds the criteria raw environmental damage. It is expected to serve as a guide in doing that which then becomes the official regulation in guarding the environment. This mutually beneficial relationship in Indonesia is regulated by Law no. Law No. 23 of 1997 on environmental management, environmental destruction, is an action that leads to direct/indirect changes to the physical and biological properties that result in the environment being unable to function in support of sustainable development [10].

Development of conservation areas is an inseparable part of National development, while the implementation must be coordinated so that mutual support with the development of other sectors. The state of nature and the environment is processed in such a way as to follow the will and fulfill human needs [8]. As the next generation is expected to have thought wise and wise. The limited use of natural resources should not be in the for sir only to meet current needs. The cosmic view of traditional societies (most ethnic groups in Tanah Papua belong to this society), holds that man is integral to his ecosystem [6].

Think more clearly that natural resources are also the right of every citizen who is devoted to posterity. The advanced pattern of view but not the odds should be like the idea [8] that if the issues are related to global issues and environmental damage, then “think globally act locally” might be the right jargon for such issue.

The phrase of the many natural products from the island of Papua is still praised through the song with the tone of "the island of Papua is a rich, small heaven fell to the earth" so the Papuan people praised the island. However, all potential in Papua Island is a limited environmental bonus; it will be exhausted if not managed properly. For that "little heaven to fall to the earth", it must also be guarded, protected and managed carefully. The richness of ecosystems in Papua is very diverse. The large number and variety of types make Papua the lung of the world and Papua aquarium ecosystem that is still maintained until now. In Papua Island is a habitat for 15,000-20,000 plant species (55% endemic), 602 species of birds (52% endemic), 125 species of mammals (58% endemic) and 223 species of reptiles (35% endemic) [9]. The territory of Papua is adjacent to the state of PNG. Frontier border area also sometimes raises the problem [7]. The border area is also a reflection of the level of prosperity between the two countries, and not infrequently, this area becomes the arena of conflict between different citizens of their nationality due to certain purposes.

The management and protection of all parties must involve themselves from every society and contribute to each other, especially from the local community. As a conservation measure as action, sasi present from the product of local wisdom that can be applied by an ecology. [2] Ecology is a study of the structure and function of ecosystems or nature in which humans are part of nature. Sasi [4,5] derived from the word sanction (witness) contains the notion of a ban on the utilization of certain natural resources without permission within a certain time, which is economically beneficial to society. While others say that [3] Sasi is a prohibition to take the results of certain natural resources as a means of preservation to maintain the quality and population of biological resources.

The problem of citizens is the fulfillment of the needs of daily living that still rely on natural products. There are still many Papuans who are still dependent on sufficient needs from the produce of the earth. For that reason, it is often known problems in the empowerment of natural products often collided with two interests of economic interests of citizens, as well as the interests of natural ecology. Specifically, this research is conducted to, first, reveal the understanding of indigenous people of Papua in Merauke about the existence of sasi, second, the two types of sasi what is applied in Merauke and the third is revealed the understanding and response of young generation Papua in continuing Sasi tradition. The value of sasi is seen to lie in the prevention of theft, optimization of village incomes, rational resource use and, in some cases, resource conservation [13]. Ensures that the provision of natural resources will not be exploited any time, but will be managed at the right time to get the
maximal harvest [14]. This management model, which prioritizes the natural resource sustainability, has been in practice for a generation [15].

2. Research Methods
This study was an ethnopedagogical research, ethnographic research on the practice of non-formal education based on local wisdom that makes oral tradition as a source of innovation and creation of learning materials for the community. Explicitly the notion of ethnopedagogy is the practice of education based on local wisdom in various domains and emphasizes local knowledge or wisdom as a source of innovation and skills that can be empowered for the welfare of society [1]. While methodologically this research using mix method.

The research employed a qualitative approach. To clarify the analysis of the second objective, the qualitative data is supported with quantitative data so that it is used the mixed of combining qualitative and quantitative methods. [11,12]. This study was conducted starting in April and ending in June of 2018. The subjects involved in this study include three villages located in Neukenerai District, i.e. Kuler village, Onggaya village, and Tomer village. Each of the villages consists of village heads, customary leaders, community leaders, and community members while the object of this study is the existence of existing sasi in each village.

The instrument used in this research was the researcher himself who has mastered about the related literature and the results of observation to the experts about research methods and about the objects that exist in the study. The data used in this study obtained from the primary data or data obtained from the first source through direct interviews at the research site. To convince the data obtained from the informant one, followed by interviews to four informants namely the head of the village, the head of the adat, community leaders and citizens. The literacy used in this study also used the relevant lithologic studies on the presence of sasi in Papua.

The analysis focuses on conservation involving traditional wisdom of existing in Merauke accordance with problem formulation and research objectives. The results of the next interview are analyzed based on indicators in the interview guide. In addition to confirmation from the informants in the study also involves documentation in the presentation of the results of supporting research results.

3. Result and Discussion

3.1 The understanding of the existence of Sasi
The level of understanding of the existence of Sasi in the village of Onggaya, the village of Tomer, and the village of Kuler are presented in figure 1.

![Figure 1. The Sasi’s understanding](image-url)
Based on the data presented above, it is obtained information that the level of understanding of the three villagers achieved an average of 84% which is at a very high level — explanation of percentage data with support from interviews conducted at the right time thus strengthening data that has been processed. Based on the results of interviews that involved the head of the village, customary leaders, community leaders, and the society, all provide an explanation of the very understanding towards the existence of *sasi* in the area. The existence of the *sasi* has been done for generations and at the level of children and grandchildren have been involved. Understanding of the population inhabiting the *sasi* area states that the positive aspects for the existence of the environment are numerous, such as the value of conservation, togetherness, and harmony in maintaining the environment and natural products. The people understand that in the presence of *sasi*, the use of natural resources will not overstep the bound and can be used by posterity later.

3.2 Type of *Sasi*

Types of *sasi* that exist in the coastal area of Naukenjerai District - Merauke were *custom sasi* and *church Sasi*. Custom *Sasi* was divided into *sasi kampung* and *sasi Suku adat*. The explanation of those type of *Sasi* is explained in tabel 1.

| Nama of village | Duration | Types of sasi | Implementation of sasi |
|-----------------|----------|---------------|------------------------|
| Onggaya         | 6 months | *Custom sasi*, *church sasi* | Traditional ceremony and church worship |
| Kuler           | 8 months | *Custom sasi* | Traditional ceremony  |
| Tomer           | 6 months | *Custom sasi*, *church sasi* | Traditional ceremony and church worship |

The three *sasi* in the Neunkenjerai District, most have the same type of punishment if the *sasi* was violated. Based on the subjects, if the *sasi* is violated, illness would befall to the offender of *sasi*. The punishment given for violation of the *sasi* is by replacing what has been taken or stolen. The punishment of violating the *sasi* may differ based on different village, according to the custom chairman that the offender will be asked for something by the law in which the offender must oblige to be granted by the customary people if they can not give the desired thing then the illness will not heal — the form of the existence of *sasi* existing in the three villages in Neekenjerai District (figure 2 and figure 3).
3.3 Sustainability of The Next Sasi Generation

Based on the results of data analysis of the interview of this study, from the three villages, especially the youth response to continue the tradition of sasi in the future, on average that the youth in the Neukenerai District agreed that the sasi will continue and will be introduced and be the provision of generations to the next generation. Steps that have been done to prove the existence of it is to involve directly on installation efforts sasi, as well as at the release ceremony.

Understanding of the population in Neukenerai District especially the subject of this research, the village of Onggaya, Kuler village and Tomer of the village, related to sasi still classified as very high. This is evidenced by the results of observation, interviews, and documentation that each adult population understand and have knowledge about sasi. At the lowest level of understanding is knowing and distinguishing sasi or not and how the prohibition and punishment if it violates the sasi. Law of sasi is customary law relating to the prohibition to take, both forest products, crops and the result of water.

Signs proved in the installation of sasi, then by its existence binding for anyone to be prohibited from taking, abusing and using until the deadline has been agreed. This is as delivered by (NR1, via personal communication) which says sasi basically derived from Maluku; this is by the results of research. [4] Sasi originated from the Maluku region. Historically, sasi in Maluku has existed since ancient times (since ancestors) and is a joint commitment by indigenous community leaders, and community leaders. This is based on the realization that without their environment they cannot live properly, so sasi must be maintained from generation to generation. Sasi contains the meaning of prohibition to take certain natural resources before harvest time as a conservation effort to maintain the quality and availability of biological, animal and vegetable resource populations, both on land and at sea. This is by what is conveyed by the active participation of local inhabitants implementation of development, enabling them to exercise control over the sustainability of resources around, because they directly intersest to nature, as a source of life [16]. The rules that apply both in writing which are known by the name of law sasi.

Through this traditional local wisdom, it is used as a starting point in nature conservation in Papua. The diversity of indigenous tribes and cultures in Papua has provided tranquility that in addition to the government’s efforts to control the potential for natural destruction, there is an awareness and understanding of the people themselves who are aware of their needs and dependence on nature. The presence of Sasi in Papua can provide fresh air that the Papua people have innately possessed the awareness to conserve their environment for the sake of their descendants.

4. Conclusion

Papuan people who inhabit part of Merauke have their way to keep their nature to be maintained well, that is by way of local wisdom named sasi. Sasi is a form of traditional conservation based on local wisdom which has the meaning of prohibition. The existence of the agreed sasi as a means of safeguarding the conservation of natural resources and the environment. Conservation based on local wisdom in Merauke District gives a real picture that local people can maintain their nature to maintain a good and balanced life. The existence of sasi already done in the environmental conservation in the land of Papua is a conservation action that has been done for generations. The results of this study are understanding, identifying the types of sasi as well as describing the sustainability of sasi by the next generation. This research is expected to be useful for additional literature which already discusses positive value of sasi existing in Merauke. The next benefit is useful in providing exemplary solutions as modeling traditional types of local wisdom in environmental conservation, especially in Papua.

References
[1] Alwasilah A C 2009 Etnopedagogi: landasan praktek pendidikan dan pendidikan guru (Bandung: Kiblat Buku Utama) p 56
[2] Chaerina Y 2016 Korepondensi antara kerusakan ekologi dan faktor penyebabnya Temu Ilmiah IPLBI 2016 (Bandung: ITB Press) p 17
[3] Kissya 1993 *Sasi aman haru-ukui: tradisi kelola sumberdaya alam lestari di haruku* (Jakarta: Seri Pustaka Khasana Budaya Lokal, Yayasan Sejati) p 34-38

[4] Kwueti M N 2014 Konservasi Berbasis Kearifan Lokal (Studi Kasus: *Sasi* Di Kabupaten Raja Ampat) *Prosiding Seminar Nasional Raja Ampat “Raja Ampat And Future Of Humanity (As A World Heritage)”* (Wasai: Universitas Satya Wacana Salatiga) p 8-9

[5] Mansoben J R 2003 Konservasi Sumber Daya Alam Papua *Antropologi Papua*, 25-6

[6] Permatasari A 2014 Otonomi Khusus Daerah Perbatasan Alternatif Solusi Penyelesaian Masalah Perbatasan di Indonesia *Jurnal Media Hukum* 21 232-233

[7] Rohana S S A 2016 Kearifan Lokal Dalam Melestarikan Lingkungan Hidup (Studi Kasus Masyarakat Adat Desa Kemiren Kecamatan Glagah Kabupaten Banyuwangi) *Jurnal Pendidikan, Teori, Penelitian, dan Pengembangan* 1 726

[8] Kartikasari S N A J 2012 *Ekologi Papua* (Jakarta: Yayasan Pustaka Obor Indonesia) p 34

[9] Yudhistira W K 2011 Kajian Dampak Kerusakan Lingkungan Akibat Kegiatan Penambangan Pasir Di Desa Keningar Daerah Kawasan Gunung Merapi *Jurnal Ilmu Lingkungan* 9 76

[10] Tashakkori A and Teddlie C 2003 *Handbook of Mixed Methods in Sosial & Behavioral Research* (USA: SAGE Publications) p 34

[11] Creswell J W and Clark V L P 2017 *Designing and Conducting Mixed Methods Research* (USA: SAGE Publications) p 2-4

[12] Novaczek I et al year *An institutional Analysis of Sasi Laut in Maluku, Indonesia* (ICLARM Tech. Rep. 59 p 327-38

[13] Hetharia H H 2014 *The contribution of siwalima values as a phylosophy of live to preserve the plural society in the moluccas* (JICSA) p 34-35

[14] Gunaisah et al 2016 *Sosio-economic and cultural sustainability in localwisdom management at local marine conservation area (KKLD) of Mayalibit Bay, Raja Ampat*, West Papua Province (AACB Bioflux) p 3

[15] Baransano H K and Mangimbulude J C 2011 Eksploitasi dan konservasi sumberdaya hayati laut dan pesisir di Indonesia *Jurnal Biologi Papua* 3 p 34

[16] Tambunan R 2008 Perilaku konservasi pada masyarakat tradisional *Jurnal Harmoni Sosial* 2 p 3-7