



Native customary land and ownership disputes among owners



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ABSTRACT

This article is related to the NCR (Native Customary Right Land) issue which focuses on the need to examine the meaning of ownership and delineation of customary land. The purpose is to understand the need for recognition of land ownership and documentation of land delineation based on the participatory mapping requirements. This article has applied the qualitative approach taking into account the native people's social experience and their worldviews on issues of ownership disputes in native customary lands. The findings were obtained by conducting semi-structural interviews in focus group discussions and in-depth interviews with respondents. Analysis of the study found the existence of meaning gaps in the context of ownership and delineation which is an issue to the problem of native customary land ownership. Hence, the recognition of land ownership has become a necessity for the community and the documentation is important as evidence of ownership.

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1. Introduction

Land ownership is highly associated with the aspects of the community's life which includes the belief system, culture, health, resource management, knowledge and customary inheritance (Azima et al., 2015; Hennings, 2016). In summary, the unique relationship existed between the community and land became the anchor of the collective way of life and identity of the community. Therefore, the need for land ownership is important as it can create a sense of pride in the community when it comes to maintaining the inherent legacy of native customary land from generation to generation and being able to carry out various daily activities.

However, a sense of the community's pride of the native customary land ownership is increasingly threatened as a result of an existence of a continuous and unresolved land ownership issue (Zaimah et al., 2015; Selvadurai et al., 2013). The existence of meaning gap in the context of native customary land ownership and delineation between the community and the authorities has resulted in the native community inability to obtain recognition of land ownership in the context of formal legislation.

Whereas, according to the custom and among the local communities, native customary land ownership is recognized by the local leaders. Problems arise when the formation of boundaries actively carried out by the authorities did not take into account the customary traditional characteristics which formulate the meaning of ownership and delineation of a community. For the traditional native communities, traditional ownership and delineation practiced are vague, something that exist but is not visible to their eyes (Hamzah, 2001; Beckert et al., 2014). Determining the ownership and delineation of native customary land within the community is more of a reference to natural physical boundaries such as rivers, hills mountains, slopes, ridges and non-physical boundaries such as race, ethnic, religion and settlement and are only understood by locals. The ownership and delineation meaning gap has resulted in the state authorities not allowing the use of self-made mapping by the local community as proof to show the native customary land boundaries (SUHAKAM, 2014).

The difference in interpretation of the meaning of delineation and native customary land ownership adopted by the local authorities and communities is a major issue identified as the cause of the absence of recognition (SUHAKAM, 2014). In the context of land surveying and conventional mapping by the authorities, verbal and informal information is not considered. This has created problems with land ownership and delineation issues as information related to local tradition and information such as

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culture and custom are not taken into consideration (Hamzah, 2001; Azima et al., 2015).

The dysfunction in the meaning of ownership and delineation of native customary land between the native communities and the authorities has resulted in the existence of various conflicts involving the native customary land. Dewi (2016) stated that native customary land conflicts are among the hot issues because native customary land conflict involves the issue of recognizing the rights of native peoples to the use of land and property, customs and cultural practices and their beliefs. SUHAKAM (2014) noted that the absence of recognition in the context of formal law in the ownership of native customary land among the native community has caused the social, economic, cultural and political rights of the community to be affected. This situation causes the existence of land conflicts between the native customary land community with the authorities and the private companies, especially the plantation and logging companies (Vos 2016; Colchester et al., 2008).

2. Land issue and its ownership meaning

From the legal point of view, the definition of native customary land in Sarawak is referred to section 5(2) of the Sarawak Land Code 1958. This section has narrowly described the occupation for the purpose of establishing NCR until 1 January 1958 and has failed to take into account the native customary traditions and custom which were the basis for land occupation by the local community. The narrow interpretation of occupation based on law rely solely on the existence of cultivation and settlement activities, leaving aside the main traditional features based on native customary land laws such as forest areas left for the purpose of conserving traditional crop land and hunting activities, collection of forest produce, their historical areas and funeral areas. In carrying out the delineation work, the Sarawak Land and Survey Authority emphasized that they have highly complied with the definition of NCR as stated under Section 5 (2) of the Sarawak Land Code 1957 (SUHAKAM, 2013). This has led to the elements contained in the customs of the native community and their culture were not considered in the process of determining the ownership and delineation of native customary land.

Colchester et al. (2008) stated that amendments to land laws made by the Sarawak State Government from time to time have further restricted the rights of communities to native customary land. For example, through a 1994 amendment authorizing the minister to abolish NCR rights on land. And their NCR claims, the Sarawak Government has immediately banned the native peoples from carrying out the native customary land mapping for use in court. In the Land Surveyors Ordinance 2001, any community mapping work or carrying out activities or works related to land surveying is an offense and is subject to legal action as contained in

Sections 20 and 23 of the Ordinance (LOS, 2007; Bujang, 2004). These amendments were stringent in stages through the NCR definition and the regulations which resulted to limited ownership of land (Colchester et al., 2008). These amendments have indirectly restricted the community from defending their rights to native customary land. As a result of native customary land ownership which is not recognized by law, customary land owners are more vulnerable to land acquisition risk.

According to Hamid et al. (2011) and Haug (2017), the issue of native customary land acquisition is one of the threats and concerns to the native customary land owners. The rights of native communities to the land are not formally drafted in Malaysian law. On the other hand, the National Land Code 1965 became the legal system related to formalized land. The ownership interest in land is only given to owners who have registered their ownership with the State Government. On the other hand, native customary lands inherited from generation to generation through traditions are not included in the land registration system in accordance with the land laws of Malaysia and therefore, they are placed under the State Authority while the Federal Government has no such authority. The State Government has the power to acquire any land, including land occupied by native communities for its interests. As an effect of the legislation, the risk of native customary land being acquired is high particularly for the purpose of economic development (Hamid et al., 2011). For example, a case filed by Bato following the acquisition of native customary land by the Sarawak State Government to build the Bakun's hydro-electric dam which affected the lives of almost 10,000 native communities in Hulu Sg. Balui. BRIMAS (1999) also stated that the native customary land is the life and blood of the native communities. According to him, the issue of transfer of ownership, land acquisition and elimination of customary land rights by the State Government for the purpose of infrastructure projects, extractive development and massive agricultural schemes by private companies or government agencies taking place in Sarawak resulted in native customary land owners to strongly voiced out their protest.

In order to develop the lands in Sarawak, most of the native customary land has been targeted for commercial land development programmed by the Sarawak State Government. However, according to BRIMAS (1999), native land areas were indefinitely opened without the knowledge and consent of the native communities under the native customary land development policy plan using the "New Concept" for the implementation of palm oil estates by government agencies such as Sarawak Land Development Authority (LKTS), Sarawak Land Consolidation and Rehabilitation Authority (SALCRA) and private companies. In the "New Concept" of development, native customary land owners should surrender their land to the authorities for 60 years to be jointly developed with

the private companies and the authorities as trustees for native customary land owners. However, Vos (2016) and Majid (2002) stated that the "New Concept" of development scheme has shown a number of major weaknesses. Among them are a non-comprehensive development of all societies and the large size of native customary land forced to be sacrificed. Colchester et al. (2008) also stated that there is a lack of clarity on how the native land owners who are involved in the development scheme benefit and how do they reclaim the land after 60 years.

Coleshter et al. (2008) also stated that land conflicts related to the native's customary rights and forced development schemes is a persistent problem in Sarawak. To date, 150 cases relating to native customary land conflict have been brought to the court. Among the cases that contributed to the figure is 40 cases involving allegations against the palm oil plantation operators. Cases involving various offenses including the absence of native customary land recognition, no negotiation, no knowledge of agreement, native customary land encroachment, and agreements made with village heads without consulting the community. Most cases are still awaiting trial and have been pending for almost ten years.

In the aspect of economic activity, the absence of native customary land recognition has resulted in economic activities, particularly logging to encroach into the community's native customary land. According to BRIMAS (1999), hundreds of thousands of hectares of the native customary lands were affected by logging activities by private companies. Logging is still operating rapidly everywhere in Sarawak especially in the native customary land areas which in turn creates many problems in the lives of native peoples who rely entirely on forest resources for their daily lives. SUHAKAM (2014) notes that recent conflicts involving logging, development and plantation projects have destroyed ecology and caused environmental destruction. The absence of the native customary land rights recognition has resulted in the parties encroaching the land freely. In the court case involving Nor Nyawai against Borneo Pulp Plantations Sdn. Bhd., the residents of Rumah Luang and Rumah Nor, two longhouses along Sungai Sekabai in Bintulu, Sarawak acted as plaintiffs and charging the defendants namely the logging company that had encroached and destroyed their ancestral land. As a result of not having documents of legal recognition of the native customary land ownership, residents can make claim based on exclusive use and occupation of the land under the territorial control and customary system (Dewi, 2016; Phoa, 2009).

According to a report released by SUHAKAM (2013), there has been an issue of native customary land entry into a gazette protected area and caused the majority of native customary landowners to protest. Native customary land owners assert that the land is a heritage land of heredity by making the existence of places of worship and old grave sites as

evidence showing the continuity of population in the area. However, according to certain laws such as the Sarawak Forestry Ordinance, it has been established that most of these areas are not recognized as native customary land. This in turn causes their lives to be curtailed by the various conditions imposed on the native customary lands which are included in the protected area.

Overall, the existence of meaning gaps in the context of ownership and delineation between the local communities and land authorities has resulted in the existence of differences in interpretations, especially in the processes of obtaining recognition of the right of ownership and delineation of native customary land. Due to lack of recognition in terms of formal legislation, native customary land owners are increasingly worried as a result of threats faced such as rights denial, land acquisition and pressure from logging, plantation and large-scale development activities that infringed and threatened the safety of native customary lands.

Based on the problems discussed, it was found that the conflicts which had occurred among the native customary land owners were due to the existence of meaning gaps between the landowners and the authorities in the context of ownership and delineation. This situation in turn hinders the recognition of land ownership through formal recognition documents such as land titles. Therefore, studies have examined the meaning of ownership and delineation of native customary land based on the knowledge and understanding of the Bidayuh community itself. Then, the issue of absence ownership recognition causes native customary lands to be exposed to various threats such as encroachment, land acquisition and exploitation subsequently leading to social, economic, cultural and community's politic being affected. In this regard, this study will emphasize on the need for documentation of the delineation and recognition of native customary land ownership based on the local and cultural views of the Bidayuh community in Serian Sarawak.

3. Native customary land rights

In the context of formal legislation, Section 2 (a) of the Sarawak Land Code, Native Customary Rights land (NCR) is defined as "land where the Native Customary Rights (NCR) have been obtained communally or otherwise according to law before 1st January 1958 and is still legal tender". Since native peoples have lived on their land over the last few generations, their rights have been recognized by the law (Coleshter et al., 2008; SUHAKAM, 2011).

Land owned by the native community is categorized as Native Customary Rights Land (NCR) or generally known as customary land among the native communities. The native customary land system does not have a legal and written land ownership documents. Land ownership is based on heritage from their ancestors in the form of a rather complicated traditional structure. Prior to 1985, if a

community member entered a forest area that had never been worked by anyone, or cleared and cleaned the area for cultivation, then the area worked was his possession regardless of the total area (SUHAKAM, 2014). Therefore, the nature of hardworking and willingness is the factor of area and the number of 'fields' of land ownership.

Ownership of native customary land is usually communal together with members of the community. Normally, there is no clearly written ownership and in formal form of the native customary land. For example, a piece of land of one hectare can be 'belong together' among some members of the family. Common ownership is meant to safeguard the families' welfare through the production of agricultural produce on the land even though family members who work on the land do not live in the same house. This communal effort land-based mechanism implies a traditional method that aims to achieve optimum survival even at low production rates obtained from a relatively small land sizes for large household consumption.

According to the Sarawak's native people customs, every member in the community has the right to use all the 'temuda' land, surrounding forests and water drainage in their areas. The custom of this land has guaranteed the rights of an individual or a family member of a community to use the land and the produce obtained from the forest. At the same time opening new land areas within their boundaries or their 'pemakai menoa' (BRIMAS, 1999).

Custom is a guidance to the principles of upholding the rights of the village area, acquisition of land for private cultivation, borders and inheritance. There are several types of land found in Sarawak's native communities (Fig. 1). Among others is the Pemakai Menoa, a virgin forest area where forest products are collected by the community as a whole and where the community relies on them for their daily lives such as hunting, obtaining building materials, medicines and others. Temuda refers to land that has been planted with crops and also land that was previously planted but has been abandoned by the cycle of cultivation for the purposes of soil fertility and land conservation (SUHAKAM, 2014).

Another category of land is *pendamin* reference to communities' cemetery areas for longhouse or village residents. It is located within the pemakai menoa area and created with a full religious right on the communities' communal land (Fig. 1). The rules pertaining to the grave are clearly described in the custom and any violation of the rules will be reasonably prosecuted according to custom. For example, there are regulations prohibiting the cultivation or development of land on land that has been marked as a graveyard (BRIMAS, 1999).

Tanah Pulau is an old forest area outside the cultivated area, but within the pemakai menoa area of a longhouse (Fig. 1). It is also known as pulau galau or community forest reserve. A Pula usually belongs to the community and the community that owned it is entitled to the land. Residents of other longhouses may hunt, collect food and vegetables

that are not grown, cut bamboo, rattan and trees creeping in the pula area, but cannot take logs or climb fruit trees where the exclusive right of this resources belongs to the longhouse residents who own it (BRIMAS, 1999; SUHAKAM, 2014).

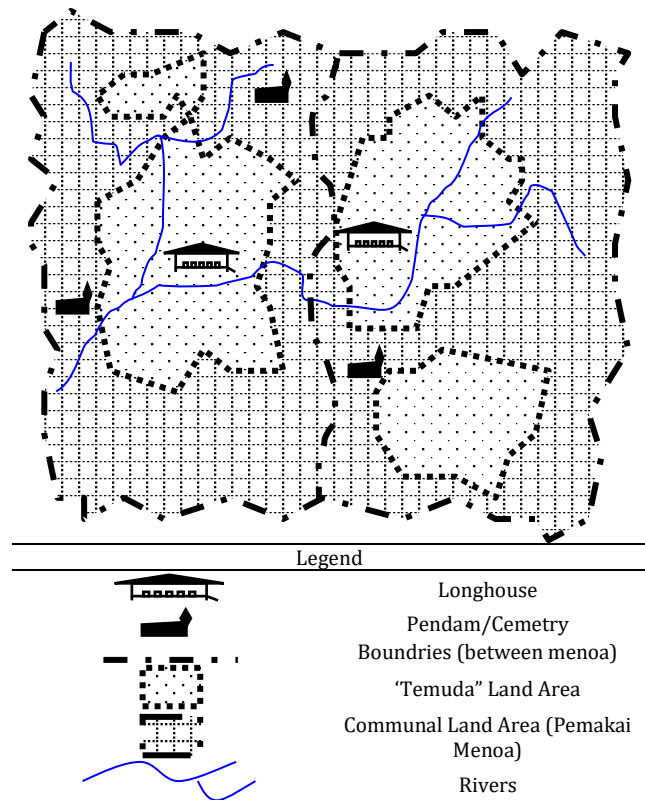


Fig. 1: Native customary land classification (BRIMAS, 1999; SUHAKAM, 2014)

Overall, the native customary land classification forms *Menoa* which has boundary markings with other communities or villages. A community depends on their *Menoa* area for their everyday lives. The land, forests and resources found within the *Menoa* area belong to the community. Through the communal ownership system, social ties have formed and strengthened the value of solidarity among the Bidayuh community. This is because the cultural values, customs and economic practices are bound by the ownership system and use of hereditary land together with family members, relatives and other members of the community. Hence, the value of social integration in the land ownership system is a rational reason for maintaining the sustainability of native customary land ownership.

4. Participatory mapping method

Participatory mapping refers to the creation of maps by local communities that together support government organizations, non-governmental organizations (NGOs), universities and external parties involved in land development and planning (Colás, 2013). This statement is also supported by Reyes (2012), a participatory mapping comprises the process whereby the professional and local

researchers work with community members in obtaining information and perceptions about the community's territory, subsequently producing a map of the area. Participatory mapping recognizes the knowledge of the area and the environment of the local community.

The development and improvements in today's participatory mapping field are something familiar and is used around the world (IFAD, 2009). There are several different terminologies about this mapping process. Among them are participatory mapping, community mapping or native people mapping. Although there are differences in terms and terminology, the implementation aspect of the mapping process is the same, involving an inexperienced group and a skilled group that has the same significance of producing maps in an area. Participatory mapping is a mapping process involving the external community and the local community by using easy-to-understand language to identify a cartography map (IFAD, 2009).

According to Bujang (2004), mapping is a good approach to define boundaries between different ethnic groups and communities. The land mapping method can also determine the purpose and the way in which to construct borders and landmarks in a particular area. The participatory mapping method usually involves native populations, State Governments and local cultural elements to obtain consent during the process of mapping of an area. Participatory mapping project is directly linked to cartographic and sociopolitical elements because it requires local people who can communicate and be active individuals in building their knowledge of the land. Collaboration between locals and researchers facilitates the mapping process and can generate useful land information.

Colás (2013) has identified six general purposes of a participatory mapping project: A) is intended at assisting the community in expressing their knowledge about their space and areas and communicating with external agencies; B) to allow the community to record and document local knowledge; C) to assist the community in their management and use of land; D) to facilitate communities in making changes; E) to improve the ability to share ideas within the community and lastly; F) to identify sources related to internal and external conflicts between communities and external parties.

According to Bujang (2004), the objective of participatory mapping is to illustrate and document the land delineation and thus help the community retain the community's traditional knowledge for their native customary land. The threat of encroachment against their native customary land has prompted the native people to urge the State Government about documenting their land rights claim. The second objective is to make the community map as a tool of negotiation in resolving disputes between communities and external parties and within the community itself. Community maps also help reinforce the community's claims in court.

The third objective, participatory mapping is intended as a community-based resource management tool. Community maps are referred by the community itself in planning the socio-economic projects and land use that become the resource to the native community.

Chapin et al. (2005) stated that the main purpose of the participatory mapping is to assist the native community in claiming and defending the land and resources of their ancestral inheritance. However, there are usually other purposes that play important roles which include the aspects of strengthening the original political organization, the management and planning of economic resources and natural resources, as well as historical and cultural documentation to save and strengthen the identity of the culture for a wider use in the future.

According to Colás (2013), there are 6 general procedures in integrating the participatory mapping information; 1) identifying and obtaining recognition process; 2) validation and evaluation process of the local people's knowledge; 3) the process of recording and documenting the implications of the native peoples' knowledge; 4) an indefinite process of information storage in the form of texts; 5) the process of transferring knowledge to the new environment, and lastly; 6) the process of information dissemination and sharing to other communities.

Bujang (2004) (Borneo Resources Institute) conducted community-mapping activities through BRIMAS in the early stages by using survey equipment such as compass and tape. The development and progress in the field of mapping caused BRIMAS to begin using Global Positioning System (GPS) to collect data through topographic maps and information obtained from the community. After the year 2002, BRIMAS began using the geographic information system (GIS) to produce a community map. Most of the maps produced by BRIMAS were used as evidence of community support to make NCR land claims in court. Normally, communities with customary land disputes will seek BRIMAS assistance to discuss their problems and seek solutions. As a follow-up, BRIMAS will investigate the problem, assess the situation and discuss with the community for further actions. BRIMAS will hold interviews with the community members to identify the information that needs to be collected and mapped.

Following that, the sketch of the participatory map will be issued by the community as their reference to show that it is their native customary land. Normally, community members who are knowledgeable about their native customary land will accompany the surveyors during the area survey work. Upon completion of the native custom land area survey process, the information obtained is stored in BRIMAS GIS. The information collected on the fieldish basis of a map mapping. Topographic maps and draft map will be printed for review. If there is any addition, the information will be updated and if the community is satisfied that the

information on the map is correct and complete, copies of the map will be printed and stored by BRIMAS. A map review will be made at any time required. Community maps sent to the community are theirs. The community has the right to use the map in determining their settlement. If others want to access the community map through BRIMAS, BRIMAS needs to get the community's approval first before distributing information to any particular party.

5. Application of the participatory mapping method

The participatory mapping method has been applied by a number of researchers in the native community mapping projects. Among them are Colás (2013), Sletto (2012), Smith (2003), IFAD (2009), Reyes et al. (2012), Gessa (2008), Chapin et al. (2005), Bujang (2004), and Herlihy and Knapp (2003).

A research involving native people of the Darien Province in Panama was conducted by Herlihy and Knapp (2003) due to the absence and inaccuracy of existing demographics and cartography information which has hindered the ability of policymakers to achieve results related to conservation, land rights and developmental issues involving native community's land. Participatory mapping is used as a new method to understand the land area of this remote native population. Due to lack of accurate information on the province, development agencies interpreted the area as an uninhabited desert area and are highly suitable for development. The situation concerns native communities living in the development areas as they are aware of the adverse effect of exploitation of land areas for development purposes. Hence, the participatory mapping approach together with the residents is conducted to express their geographic knowledge especially pertaining to land management, and subsequently change their geographic knowledge into the map according to the established standards.

The study is a case study using participatory mapping research based on descriptive information of cartographic standard by involving the local communities with geographic knowledge during the mapping process. Technical and cultural aspects are important elements which were given attention during the mapping process. Generally, this project has two main objectives namely; 1) to produce cartography information on the use of native's land and natural resources in Darien; and 2) to disseminate information on research findings during the national native community forum. The research area was divided into 20 survey zones involving surveyors, researchers and coordinators from the local authorities. The coordinators choose community representatives from every zone that will serve as surveyors in this research. Four criteria were used to select representatives from the community; 1) native population of their survey zones; 2) can read and write; 3) respected among

locals; and 4) knowledgeable of the natural environment used by the community. The results of this participatory mapping research have helped the native people in Darien changed their cognitive knowledge into cartographic forms and statistics that are easily understood by themselves and external parties.

Additionally, based on the case studies on participatory mapping projects in the Rio Platano Honduras province, Colás (2013) has outlined some primary use of mapping. Among them are aspects of planning, historical and cultural proofing, social and health mapping, agriculture and plantation and social mobility. Meanwhile, Bujang (2004) has applied the participatory mapping method by engaging local residents and researchers to form the mapping of the Dayak community, Sarawak. Due to the neglect of the State Government and the pressure of private companies on the rights of Dayak communities to native customary lands, mapping is seen as a key requirement in ensuring the security of land ownership. Therefore, Bujang through BRIMAS (Borneo Resources Institute) has been intensifying the efforts to assist the community through the participatory mapping method to provide valid, recognized and clear native customary land ownership documents. Participatory mapping has mobilized the community in defending their native customary land. For the first time, the Dayak community can see and tell exactly the boundaries of the native customary lands from the community maps issued. Community maps have also been accepted as evidence in court against customary land claim cases. The situation clearly exhibit that the community map is more useful as a legitimate tool for the Dayak community to maintain the sustainability of the native customary land ownership.

Chapin et al. (2005) examined a project (The Inuit Land Use and Occupancy Project) involving 33 Inuit communities in the western Province of Alaska and Canada. In this project the documentation of past and present subsistence activities such as hunting, fishing, and animal trapping were examined by the researches. The Inuit community recorded the community's perception of the relationship with the land, compiled a comprehensive data on history, names of places, linguistics, self-subsistence techniques, settlements and other information concerning culture. According to the researchers, an easy-to-use approach whereby communities sketch the maps on paper and on the ground, exploration for traditional addition and cartography technique addition such as area marking, compass reading, and modeling in order to produce maps rich in local and geographical knowledge were used.

IFAD (2009) commenced the operation of the *Southern Highlands Development Project* in Peru in April 2015. The project uses a participatory mapping technique as a support plan provided for the community to enhance its natural value and physical assets owned. The project uses a cultural map created by the community by taking into account

their perceptions of the past, present and future of their surrounding areas. The cultural map describes what they want in the community and what kind of support is needed to achieve the goals of the project. The information needed in the cultural map has been further explained by the community and assisted by skilled and trained facilitators. The testing was designed to enhance the management of natural resources, the process of documenting the express and implied aspects of community's culture or heritage traits that become traditions within the community as well as identifying alternative natural resource-based economic activities.

In Thailand, IFAD also applies the participatory mapping method in land use planning within the Mae Hong Son province. Participatory Land Use Plan (PLUP) is a technique which involves community members in exploring and contributing to issues of land use activities by the local and regional communities. PLUP begins with a participatory mapping aimed at identifying natural resources at the village level. The main goal of this project is to improve the sustainable use of land, forest, water, rehabilitation of rainwater catchment areas, and agricultural activities according to land suitability. A three-dimensional topographic model was used for agricultural frontier in highland areas, permanent areas for agriculture, and rainwater catchment forest areas. This model was used to discuss this issue in a community to develop the local community management strategies in the context of land use. The information obtained was processed using GIS technology. Overall, IFAD (2009) summarized that the purposes of participatory mapping are; a) to assist the community in expressing and communicating knowledge of their surrounding areas to external parties, b) to enable the community to document local knowledge, c) to assist communities in land use planning and resource management, d) to enable communities to support change, e) to enhance community's capacity, and f) to prevent from land conflict.

The statement made by IFAD (2009) is also supported by Gessa (2008). He further explained that participatory mapping is a move towards community empowerment of a better land access and securities. Mapping has actually helped the community to take advantage of political opportunities. This is because the mapping method is a successful step in helping the community in obtaining land ownership rights under legitimate law when the administrative institution has decided to expand the area that can be accessed and liable to rural communities. Then, the main goal of mapping does not end just on map lines, but instead serves to help develop community's capabilities to resolve conflict, build consensus and take collective actions. Maps created are to be used, and an ideology stating that the map is a tool that can empower not only depending on the demand of a community but rather the community should strive to improve their capabilities and develop strategies to develop their own area map. Institutions and community members

should ensure that the map is built according to the needs of the community itself. Furthermore, the participatory mapping will not only be able to identify the natural resources in an area but rather to identify the institutions responsible for the management and use of such resources. Through the participatory mapping, land tenure rights are more secure. Lastly, Gessa (2008) recommended that maps produced at the final stage of the participatory mapping process should not be placed only in archives or museums, but instead be a tool in the life of a community for balanced development and empowerment.

An assessment of the implications of participatory mapping in conflict has been examined by Reyes (2012) against the village of Tsimane province, Bolivia Amazon. In the study, researchers are concerned with the impact of participatory mapping associated with internal and external conflicts. Some researchers consider that participatory mapping can be used in managing conflict resolution competition over land resources. However, for Reyes (2012), participatory mapping was also likely to cause conflict as it can lead to overlapping of land use and traditional resources. The delineation may result in overlapping rights giving rise to conflicts between neighbors, races or between villages. Researchers also pay close attention to the role of participatory mapping in increasing conflicts with external parties such as the Government and private companies. Normally, land occupied by the native people is an area rich with diverse biodiversity resources, valuable raw materials and minerals. This in turn creates conflicts with outside settlers claiming the right to occupy the area and exploiting these resources.

For the native community, participatory mapping is often used to obtain recognition of rights of land use as well as the personal protection of land loss due to exploration or state authorities. Researchers also identified efforts undertaken during the process of participatory mapping in obtaining recognition of land rights and protecting their land area. However, the maps produced is likely to have been challenging the existing maps made by the State Governments and authorities. Overall, Reyes (2012) explained that the processes and outcomes of participatory mapping are able to help resolve conflicts or contribute to the generation of conflict depending on the context of political and socio-economic activities carried out.

A study on participatory mapping was conducted by Sletto (2012) on the Afro-Colombian community, Venezuela. According to him, the native peoples strive to harness the power of mapping as representing the culture, properties and areas belong to them. The community participatory mapping project is concerned with the knowledge of the native people. Indirectly, participatory mapping has become the primary approach used for the conservation of biodiversity and land use in the native peoples' areas of Venezuela. For some cases, the participatory mapping project also contributes to

the determination of the native people's fate in the planning and management of resources democratically. Overall, Sletto (2012) emphasized that the concept of participatory mapping can be strengthening social bond and community values and rejuvenate the identity and traditions of cultural heritage to face social change together. At present, native peoples use cartography for the opening of new areas and resource management such as documentation of traditional resources, use of resources according to the needs and realities of the local communities, sustainability of land use, strategies in resource management and, most importantly, in explaining the unique relationship of an area with nature.

Through the observation made by Smith (2003) on the participatory mapping of the Latin American native, he stated that the rights of the native peoples over land and natural resources are subjected to the socio-economic, political and legal context of the country in their settlement. Hence, the struggle for native peoples' rights against the land is a determinant of their own destiny, as well as social and economic justice whether at the local, state or national level. According to Smith (2003), the legal approach in protecting the rights of native people, communities and province is important, but still has its own weaknesses. The law is said to be unable to guarantee the community rights in the ownership and land use. Therefore, the participatory mapping has relevance in protecting land ownership and sustainability of resources. Based on his observation, the researcher has listed six participatory mapping benefits to the community; A) proving sustainable use of land; B) protecting existing territory rights and resources through delineation; C) the effect of the various actor's involvement in the participatory mapping; D) the role of technology in participatory mapping; E) promoting social relations; and F) documenting the community's knowledge and areas in the mapping.

The findings from previous researchers clearly indicate that the mapping approach can be used to help the native peoples to defend their rights against native customary land. This is clear when the local community was faced with several challenges in their efforts to defend the native customary land rights.

6. Challenges of protecting land owned by the native community

In the context of customary land law, the Sarawak Land Code 1958 provided various challenges to the Bidayuh community in an effort to defend the native customary land. Generally, these challenges can be divided into two aspects. Firstly, existing legislation that does not clearly recognize native customary land and according to the customs and traditions of the Bidayuh community. Secondly, the unlimited State Government's power in drafting legislation concerning native customary land.

The difference in interpretation expressed by formal legislation with the customary culture become a discussion in examining the failure of recognition of the Bidayuh community's native customary land. Section 5 of Sarawak Land Code 1958 defines the occupation for the purpose of establishing a native customary right land (NCR) until 1 January 1958 has narrowly and fails to take into account the traditional practices and custom which form the basis of land ownership by the local community. A narrow interpretation of occupation based on law rely solely on the existence of cultivation and settlement activities. The interpretation sets aside the primary traditional features based on the traditional native customary right land laws such as abandoned forests (not planted) for the purpose of conserving traditional plantation land and hunting activities, collecting forest produce, their historical areas, burial grounds and other practices according to custom and tradition. Overall, it can be concluded that the Sarawak Land Code 1958 is seen as not giving full recognition to the history of the natives in respect of the community's customs, traditions and practices in determining the native customary right land ownership.

The existence of differences in the interpretation of native customary land between the state authorities and the native communities has sparked various conflicts which in turn leads to problems of the delay in land applications processing and land surveying in Sarawak. According to the Bidayuh community understanding, the belief in formal legislation in protecting the native customary land is questionable when to date there has been no effort and work done by the authorities in registering their native customary land ownership.

In discussing the second challenge, the State Government power is free to control the native customary lands and free to draft the land law according to their needs. Section 2 of the Sarawak Land Code 1958 defines "all lands where grants are not issued or land which has no legal ownership in the context of formal legislation or acts as Government land or State Land" (SUHAKAM, 2014). Section 12 provides that "all the properties in the State Government's control, land and all rivers, drainage, bays and water sources and rigs are the rights of the State Government. There is no provision that exempts the rights in terms of custom. The definition provided in Section 2 together with the definition by Section 12 of the Sarawak Land Code 1958 will have a significant effect on the Bidayuh community native customary land especially in the context of land ownership (SUHAKAM, 2014).

In the meantime, Colchester et al. (2008) also noted that amendments to land laws made by the Sarawak State Government from time to time are increasingly restricting the community's rights to the native customary and. Many amendments have been made to the Sarawak Land Code 1958. For example, in 1994, amendments have approved to empower the minister in charge of land matters to invalidate

customary rights on land. In 1996, responsibility was placed on the claimant to prove that he had customary rights to any land, as land was considered as state property. In addition, in 1997, following the verdict of a court case in favor of a native people community and their NCR claims, the Sarawak government immediately banned the customary community to map the native customary lands for use in court. Prohibition of self-mapping is also stated in the Land Surveyors Ordinance 2001 that, any community mapping work or carrying out activities or works related to land surveying is an offense and subject to legal action as contained in Sections 20 and 23 of the Ordinance (LOS, 2007; Bujang, 2004).

In 1998, to enable the acquisition of land for development purposes and so forth, mechanisms for valuation and compensation payments were included. In the meantime, the Land Code Ordinance (Amendment) 2000 has made several amendments involving the definition of 'native rights'. In this regard, Section 7A (1) has elaborated 'legal rights' in three categories, namely the legitimate right to occupy pursuant to Section 5 (1) or (2), rights and privileges in the name of Native Communal Reserve under Section 6 (1) and rights in the village reserve (Section 7). The year 2000 amendments have harmonized the processes and procedures relating to native customary land with agencies involved in the context of land alienation and compensation-related lands that have been taken over for development purposes (Azima et al., 2015).

These amendments are stringent in stages through the definition of NCR and the regulations which lead to a limited ownership of land (Colchester et al., 2008). These amendments have indirectly restricted the community from defending their rights to native customary land.

In the context of ownership systems, the existing legislation that does not take into account the landowners' social aspects have led to the decline in native communities' trust in the ownership system. Often the development process undertaken by the agents of development is in conflict with the interests of the local community. The absence of a clear and strong recognition by formal law on the rights of the Bidayuh community in land ownership has resulted in the occurrence of various problems.

According to the Bidayuh community's view, this situation has further created internal problems especially in the context of land distribution in the family.

Taking into account the importance of native customary land to the Bidayuh community in various aspects of the need, any denial of rights, particularly in the context of legislation in protecting their native customary rights causes their livelihood to be affected.

7. Limitations in the land surveying process

In an effort to obtain land recognition, land surveying is a prerequisite for obtaining a valid

ownership document or land title as stated in Section 5 (2)(i). However, the existence of various conflicts such as differences in the interpretation of native customary land between state authorities and native communities has led to problems with delays in processing the native customary land applications and survey. This situation in turn has had a negative impact on the community's efforts to obtain a legitimate ownership in the context of formal legislation.

At X, the informant stated that his land still had no native customary land ownership documents despite participating in land development programmed.

This situation shows that the management of land applications by the authorities shows their weaknesses. Despite a lot of pressure from the community, land ownership remains with traditional ownership systems inherited from generation to generation. Customary lands are pressured with various threats and pressures that ultimately threaten the security against ownership. One of the primary concerns is land encroachment involving private companies such as plantation and logging. According to a few informants, court cases involving customary land ownership with outside parties are mostly unsettled for a long period of time.

Additionally, the community's expectation of obtaining the native customary land ownership recognition is increasingly difficult when the cost of land surveying is very high. Based on the delineation works in other villages, for a village of 1000 hectares of land, the cost of surveying is estimated at RM500,000. According to a few informants, if they want to have the delineation, the cost must be paid by the land owners.

According to SUHAKAM (2014), the State Government has taken the approach as part of an initiative under the National Key Result Areas, to carry out perimeter surveying work to identify the boundaries of native customary land in Sarawak. Financial resources for delineation survey works were obtained from the Central Government involving an area of 250,000 hectares to be completed by 2015. However, SUHAKAM (2014) notes that the initiative lists several conditions which narrowed and prevented the basic demands of the native customary land community. Among these are, survey works will be limited to residential and planting areas. Native Customary lands which include virgin forest such as pemakai menoa and tanah pulau are excluded (not included in the delineation survey area). Furthermore, when the area has been surveyed, the native customary community are not allowed to claim on other customary lands. Overall, these terms explicitly violate the fundamental provisions of the native customary community claim because the exempted lands are part of the cultural heritage rights which need to be protected and sustained. However, a few informants expressed their regret over the authorities for not conducting survey works even

though the budget had been stated as what was being mentioned in the media.

The delays in survey works by the relevant agencies have led the local residents to use the aid medium from the non-governmental organizations (NGOs) in the delineation processes. For example, villagers in Kampung Pridan have been assisted by the Dayak Bidayuh National Association (DBNA) in the land surveying works involving housing land lots, village settlements and part of agricultural lands. The land delineation has been marked by a consistent border marking, using the 'diamond wood'. However, concerns remain among the landowners who have been surveyed by the DBNA because to date matters related to the obtaining of the grant has yet to show a positive development.

8. Native customary land encroachment

Commercial and large-scale plantation activities are said to be encroaching or entering the villages of the native communities without the permission and approval of the villagers. In granting permission for land development activities, Provisional Lease (PL) issued to private companies for large-scale plantation activities is said to be able to accelerate land development and provide income to the State Government. Before the PL is issued, the Land and Survey Department need to carefully ensure the native customary land area using the aerial photograph taken in 1954 (SUHAKAM, 2014). One of the conditions imposed on a PL licensee is to exclude native customary land or land which was awarded ownership from its cultivation operations. However, the weakness of the aerial photograph of the reference is its inaccuracy in describing the actual situation in the field. High reliance by the Land and Survey Department on the aerial photographs taken in 1954 may not be able to accurately show the communities' activities on the native customary lands that have been in existence for several years. Furthermore, there is a reluctance from the Land and Survey Department to recognize the virgin forest vacant by the community. The forest land is naturally emptied from agricultural activities and other land uses for the purpose of preserving forests and other factors such as historical areas and forest resource areas.

This situation further resulted in plantation companies entering the native customary land area, especially the virgin forest area protected by the community. A few informants have expressed their opinions on the issue of land encroachment by private companies, especially plantation and logging companies.

According to a few informants, native customary land owners are forced to negotiate with PL holders, that is the plantation and logging companies. The purpose is to negotiate payments or compensation. However, the weakness of the community is that they do not have any experience in negotiating with the private companies. Furthermore, due to economic incompetence, the community is unable to

provide funding in the use of legal services to advise them on such negotiations. As a result, the affected native communities were forced to surrender their land with compensation or honorarium which was not worth the land size surrendered.

According to a few informants, there is also a native customary land encroachment without any consultation with the community. More frustrating, the reports of encroachment made to the police were never taken action. In fact, private companies will get the police involved when community fighters harshly defended their land. As a result, the community was arrested and detained by the police. However, the spirit of the Bidayuh community in defending their land has never faded to protect their hereditary heritage land as stated by a few informants.

If the encroachment by private companies is left to continue, it will deny the community in maintaining its ownership of native customary lands. The virgin forest or the so-called pemakai menoa and pulau which were inherited for generations in the Bidayuh community are increasingly threatened with the loss of their ownership rights.

9. Conclusion

Overall, there are various challenges faced by the Bidayuh community in maintaining the ownership of their native customary land. When the conflict occurred between the landowner and the government on the issue of ownership and land recognition, the Bidayuh's community native customary land is becoming increasingly threatened when there is a 'third' party comprising the local leaders, private companies and individuals within the community itself. In this regard, a third parties have threatened the security of native customary land with several actions such as encroachment of native customary land by the logging and plantation companies, unreasonable compensation payments, and conflicts of local leaders who are easily "bought" by outsiders. This is seen as challenges that need to be addressed urgently in order to ensure that the locals get the right to secure the land ownership they have inherited for so long. In this regard, the toughest challenge that the native people must face is to defend the continuity of land ownership as part of the Bidayuh community identity.

In this regard, social sustainability can be regarded as a major challenge that must be addressed by the land development agency in the study area. This is because in the context of ownership, the necessity and importance of cultural and heritage aspects cannot be denied at the policy implementation stage. The transformation that needs to be done should take into consideration the relevant aspects of local knowledge of the native peoples to their land. Among the approaches that could solve the usage problem and acceptance of local knowledge in the context of land ownership is an approachable digital participatory mapping approach. Through the participatory mapping

approach, the relevant disputes over borders of the local communal land can be addressed.

Therefore, recognition of land ownership is important to restore the rights of the Bidayuh community as the 'nature's keeper'. The majority of native customary rights landowners met gave positive views on the need of a legal and recognize ownership and delineation of native customary land by formal legislation. They are of an opinion that technical boundary determination and not verbal or based on inheritance is really needed. Determination of boundaries and formal ownership is needed to avoid any threats such as encroachment and land acquisition.

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Compliance with ethical standards

Conflict of interest

The authors declare that they have no conflict of interest.

References

- Azima AM, Selvadurai S, Ramli Z, Saad S, and Hussain MY (2015). Boundry and customary land ownership dispute in Sarawak. *Mediterranean Journal of Social Sciences*, 6(4S3): 17-25. <https://doi.org/10.5901/mjss.2015.v6n4s3p17>
- Beckert B, Dittrich C, and Adiwibowo S (2014). Contested land: An analysis of multi-layered conflicts in Jambi Province, Sumatra, Indonesia. *ASEAS-Österreichische Zeitschrift für Südostasienwissenschaften*, 7(1): 75-92.
- BRIMAS (1999). Deklarasi perayaan gawai kelingkang: Nerabai menoa 1999. Available online at: <https://bit.ly/2ATnwYi>
- Bujang M (2004). Malaysi as case study: A community initiative: Mapping dayaks customary lands in Sarawak. In the Regional Community Mapping Network Workshop, Quezon City, Philippines, 2: 1-7.
- Chapin M, Lamb Z, and Threlkeld B (2005). Mapping indigenous lands. *Annual Review of Antropology*, 34: 619-638. <https://doi.org/10.1146/annurev.anthro.34.081804.120429>
- Colás AO (2013). Participatory mapping in the design process of a spatial data infrastructure SDI: A case study in the Biosphere Reserve Rio Platano (Honduras). M.Sc. Thesis, NOVA Information Management School (NIMS), Lisbon, Portugal.
- Colchester M, Pang WA, Chuo WM, and Jalong T (2008). Tanah menyara hidup: Hak-hak tanah dan pengembangan perladangan kelapa sawit di Sarawak. Forest Peoples Programme, Moreton-in-Marsh, UK, and Perkumpulan Sawit Watch, Indonesia.
- Dewi R (2016). Gaining recognition through participatory mapping? The role of adat land in the implementation of the merauke integrated food and energy estate in Papua, Indonesia. *ASEAS-Österreichische Zeitschrift für Südostasienwissenschaften*, 9(1): 87-105.

- Gessa SD (2008). Participatory mapping as a tool for empowerment. International Land Coalition, Rome, Italy.
- Hamid NA, Harun N, and Ismail N (2011). Pengambilan tanah bagi pembangunan ekonomi: Isu dan Penyelesaian. *Jurnal Undang-Undang dan Masyarakat*, 15: 135-148.
- Hamzah MANM (2001). Konsep sempadan negeri dalam masyarakat. *Jati-Journal of Southeast Asian Studies*, 6: 69-104.
- Haug M (2017). Men, women, and environmental change in Indonesia: The gendered face of development among the Dayak Benuaq. *Austrian Journal of South-East Asian Studies*, 10(1): 29-46.
- Hennings A (2016). Assembling resistance against large-scale land deals: Challenges for conflict transformation in Bougainville, Papua New Guinea. *Austrian Journal of South-East Asian Studies*, 9(1): 33-52.
- Herlihy PH and Knapp G (2003). Maps of, by, and for the peoples of Latin America. *Human Organization*, 62(4): 303-314. <https://doi.org/10.17730/humo.62.4.8763apjq8u053p03>
- IFAD (2009). Good practices in participatory mapping. International Fund for Agricultural Development, Rome, Italy.
- LOS (2007). State financial secretary (incorporation) ordinance. In: Law Revision, Sarawak. Commissioner of Law Revision Publisher, Malaysia.
- Majid CF (2002). Vulnerability, control and oil palm in Sarawak: Globalization and a new era? *Development and Change*, 33(2): 189-211. <https://doi.org/10.1111/1467-7660.00247>
- Phoa J (2009). Protecting native customary rights: Is legal recourse viable alternative? *Akademika*, 77(1): 69-89.
- Reyes VG, Orta-Martínez M, Gueze M, Luz AC, Paneque-Gálvez J, Macía MJ and TAPS Bolivian Study Team (2012). Does participatory mapping increase conflicts? A randomized evaluation in the Bolivian Amazon. *Applied Geography*, 34: 650-658. <https://doi.org/10.1016/j.apgeog.2012.04.007>
- Selvadurai S, Er AC, Lyndon N, Sum SM, Saad S, Manaf AA, and Ramli Z (2013). Penan natives' discourse for and against development. *Asian Social Science*, 9(8): 72-78. <https://doi.org/10.5539/ass.v9n8p72>
- Sletto B (2012). Indigenous rights, insurgent cartographies, and the promise of participatory mapping. *Teresa Lozano Long Institute of Latin American Studies*, London, UK: 12-15.
- Smith DA (2003). Participatory mapping of community lands and hunting yields among the Buglé of Western Panama. *Human Organization*, 62(4): 332-343. <https://doi.org/10.17730/humo.62.4.cye51kbmmjkc168k>
- SUHAKAM (2011). Dasar Tanah di Sarawak. Suruhanjaya Hak Asasi Manusia Malaysia, Penampang, Malaysia.
- SUHAKAM (2013). Laporan Mengenai Inkuiri Nasional Hak Tanah Orang Asli/Asal di Malaysia. Suruhanjaya Hak Asasi Manusia Malaysia, Penampang, Malaysia.
- SUHAKAM (2014). Laporan inkuiri nasional mengenai hak tanah orang Asal/Asli. Suruhanjaya Hak Asasi Manusia Malaysia, Jaringan Orang Asal SeMalaysia Publisher (JOAS), Penampang, Malaysia.
- Vos RED (2016). Multi-functional lands facing oil palm monocultures: A case study of a land conflict in West Kalimantan, Indonesia. *ASEAS-Österreichische Zeitschrift für Südostasienwissenschaften*, 9(1): 11-32.
- Zaimah R, Azima AM, Lyndon N, Sarmila MS, and Sivapalan S (2015). Cultural construct of customary land from the perspective of Bidayuh community. *Mediterranean Journal of Social Sciences*, 6(4): 26-31. <https://doi.org/10.5901/mjss.2015.v6n4s3p26>