



---

## **Indigenous and Non-Indigenous Knowledges**

### **Dialectics in Management of Kajang Customary Forest, District of Bulukumba, South Sulawesi**

M. Asar Said Mahbub<sup>a\*</sup>, Darmawan Salman<sup>b</sup>, Daud Malamassam<sup>c</sup>, Muhammad  
Dassir<sup>d</sup>, Tamzil Ibrahim<sup>e</sup>, Hajawa<sup>f</sup>

<sup>a,c,d</sup>*Faculty of Forestry, Hasanuddin University, Makassar 90245, Indonesia*

<sup>b,e</sup>*Faculty of Agriculture, Hasanuddin University, Makassar 90245, Indonesia*

<sup>f</sup>*Faculty of Agriculture, University of Muhammadiyah Makassar, Makassar 90221, Indonesia*

<sup>a</sup>*Email: asarsaidmahbub@gmail.com*

<sup>b</sup>*Email: darsalman@hotmail.com*

<sup>c</sup>*Email: d.malamassam@yahoo.co.id*

<sup>d</sup>*Email: mdassir@yahoo.com*

<sup>e</sup>*Email: pecighi@gmail.com*

<sup>f</sup>*Email: hajawasutte@gmail.com*

#### **Abstract**

Local and non-local knowledges play an important role in the management of Kajang customary forest. This study aimed to analyze the existence of indigenous knowledge of Kajang Communities and dialectic with the knowledge or wisdom from outside Kajang customary communities in managing indigenous forests. The study was conducted in January 2012 to June 2012 in the village of Tuna Toa, District of Kajang, Bulukumba, South Sulawesi, Indonesia. This location was chosen because it is an area that still applies local knowledge for keeping their forests sustain until today.

---

\* Corresponding author.

The approach taken in this study was a qualitative approach in order to describe and provide an explanation, providing a holistic understanding (comprehensive) and in-depth about the phenomenon that became the object of study. Research showed that there were a variety of local knowledges Kajang customary communities in utilizing forest derived from the teachings of “Pasang” and non-local knowledge from the Government and private parties. Dialectics then arise and influence in the form of distribution of the forest complex by function, exploitation prohibitions and sanctions based on legislation. It was concluded that the dialectic is reflected in the form of coexistence, domination and hybridization. Referrals ecosystem management is to reconcile local and non-local knowledges especially elements that have been hybridized and still maintain rules that are dominated by “Pasang” rules.

**Keywords:** Dialectics; Local Knowledge and Non-Local; Pasang Ri Kajang; Customary Forest.

## 1. Introduction

### 1.1. Background

Recently, paradigm in the forest management has shifted from the government-centered paradigm to a paradigm that gives more space for the community and other stakeholders to work together and contribute equally. This paradigm puts *the social system* as a unit of development management, in which actors collaborate, include government / state, private / market and community / civil society to manage resources [1]. To develop a model of community-based management measures are required to explore the potential of local wisdom or intelligence, more important is to provide a space for people primarily for indigenous people who make the forest as part of the culture by maintaining customary rules.

One area that still retains customary rules in forest management is Kajang customary communities in Bulukumba district, South Sulawesi. They develop customary rules based on “Pasang” (messages) to regulate the use of forest based on centralized system under the leadership of traditional leader called *Ammatoa*. The “Pasangs” delivered by *Ammatoa* regulate almost all aspects of life, thus it can be said that Kajang people live and organize their life always rely on the Pasang, while the forest is considered as the foundation of life (*staff of life*) and become the most valuable property [2].

In addition to local knowledge that exist in Kajang customary communities, there are also policies pursued by the government since the long period of time in the form of regulations, the implementation of forest development programs which include forest and land rehabilitation and development of rural forest communities. These policies also influence the local knowledge held by Kajang customary communities.

Interactions from outside either with the government or the private sector have an impact on changing the social system that has been integrated with the community. Modern equipment, systems of government and the introduction of a modern system of forest management affect local wisdom that has been embraced by Kajang customary communities. On the other hand, this community also has its limitations in the face of global challenges, population pressure and increasing community needs. Therefore, fundamental problem in the study was threaten to the existence of local wisdom of Kajang customary communities based on “*Pasang*” dealing

with non-local knowledge that comes from the government and the market mechanism.

Several studies undertaken by [3,4,5,6,7,8] were generally limited to the identification, reveals “*Pasang*” romanticism in regulating social life of *Kajang* people; no studies have revealed how local wisdom of *Kajang* customary communities use dialectic and interact with non-local knowledge that comes from outside the community throughout the course of time.

The urgency of this study is its emphasis on the dialectic between indigenous “*Pasang ri Kajang*” and non-local knowledges not only seen on one side of how it relates and serves as a prescription *Ammatoa* community action but also the dialectic with the effects of non-local forest management.

## **1.2. Objectives**

This study aims to analyze the existence of local or indigenous knowledge *Kajang* customary community and non-local dialectic with the knowledge or wisdom from outside *Kajang* customary community

## **2. Methods**

### **2.1. Location and Research Model**

In order to provide an accurate and representative feature, the location specified on the two indigenous territories in the village of *Tana Toa*, e.g. *Ilalang Embaya* (core area) and *Ipantarang Embaya* (the area surrounding the core area).

The study design used was a case study with emphasis on the study of the characteristics and interaction between the indigenous knowledge and non-local customary forest management *Kajang*. This is achieved by directing the research and interpretation of the data and include consideration of *Kajang* customary communities and the events that occurred in the management of customary forests in his natural setting.

Data is collected for six months, first two months of the study sites were allocated one month for observation, approach information sources, identify and develop relationships with prospective informants and one month for the interview. The next two months were allocated for in-depth interviews with *Ammatoa*, traditional leaders and community leaders that exist in *Kajang* customary communities and two months later was observation and interviews with *stakeholders* outside *Kajang* customary communities. Data was collected through observation, interviews, archival footage and documentation. Analysis of key data used qualitative data analysis consisted of several steps: data reduction, data presentation, and then draw conclusions.

### **2.2. Population and Sample**

For qualitative data collection, informants chose based on information from community leaders who understand forest management in *Kajang* customary community and *stakeholders* who play role in forest management at outside of the community. Information about it is mainly derived from guidance officers at the village office and

sub-district, some also come from a variety of previous studies both by the author and other researchers. Informants who have been interviewed were asked about the informant can be used later. There are also informants defined by the authors after doing some research beforehand. So the process until the data collected reaches sufficient levels.

Based on the process, it was decided that there should be informants interviewed repeated, as they were considered potential to reveal a lot of things, especially community leaders who help *Ammatoa* run the government, and there were also informants interviewed only once.

The principle of triangulation of data collection was also practiced, in the sense of question theme not only relied on one source of information, but the truth of the information was also based on multiple informants. The first stage of data analysis was a data reduction. Activities undertaken at this stage was selecting, sorting, simplifying, abstracting and transformation of raw data based on field notes. This process selected only the data relevant to the focus of the research and data that did not meet the criteria was excluded. The process of data reduction performed gradually during and after the collection of data for the report was ordered. The second stage was the presentation of the data, the preparation of a statement of a set of information that allowed drawing conclusions. Data presented in the form of narrative text. The data were scattered and separated on different sources of information classified by theme and needs analysis. At this stage the data was presented in a unified theme: the general state of the region, forest management in *Kajang*, local and non-local wisdom, and direction of environmental management. The third stage was drawing conclusions based on reduction and presentation of data.

### **3. Results**

#### ***3.1. Local Knowledge on Indigenous Forest Management in Kajang Customary Forest***

Indigenous forest with an area of 331.17 ha is production forest according to forest division set by DISHUTBUN, but Kajang Indigenous Community considers that the forest is protected forest. Kajang indigenous forest located within the customary area is at an altitude of 600 meters above sea level, and located in the village of Tana Toa, Kajang district, Bulukumba, South Sulawesi. Kajang Indigenous community divided their forest management zones into three parts: The first zone termed the *borong karamaka* or sacred forest. The second zone, called *Borong Batasayya* is defined as forest boundary or delimiter, the third zone is called the outside forest (*Borong Luarayya*) or wide forest because this is indeed the forest zone. In addition to zoning, Kajang Indigenous Communities also have hatching on forest hydrology contained in *Pasang*:

*"Punna nita'bangi kajua boronga ri. Bosi Anggurangi appakaanre'i timbusu. Anjo boronga anngontaki bosiya. Aka'na kajua appakalompo tumbusu. Napau tau rioloa.*

*Meaning: If a tree felled in the forest, then it will reduce rainfall, eliminating springs. It is the forests which bring rain, tree roots enhance the springs. According to the ancestor messages.*

As traditional society in general, Kajang customary Community also have knowledge about climate based on

the behavior of various types of wildlife and flora around them. This behavior is used as a natural detector for determining a suitable climate and the time to start planting activities. In addition to insect, bird species are also used as an indicator to determine the time of the rainy season and the dry season. Another local knowledge in indigenous communities Kajang is about biodiversity and some taboos or *Kasipalli*. *Kasipalli* is a term in Kajang Indigenous Communities used to declare the ban to someone who does and says anything that does not fit with the community norms. Kajang customary communities believe that violations on *Kasipalli* will result in punishment or a curse. Public belief in *Kasipalli* always held firmly. Its main function is as a conviction to form a sublime personal and character education media. Typically, four organisms are very abstinence to be exploited according to follows *Pasang: Ta'bang kaju, Tunu Bani, Rao Doang, Tette 'Uhe'*. Meaning: Cutting Wood (tree), Burning Bees, catching Shrimp and cutting Rattan.

Descriptions of forest management based on local knowledge as previously described can be summarized as presented in Table 1.

Descriptions of forest management based on local knowledge as previously described can be summarized as presented in Table 1.

**Table 1:** Local Knowledge in Kajang Customary Forest Management

Element	Local Knowledge
Division of Forest Complex	Divided into two complexes ( <i>Pa'rasangangIraja and Pa'rasangangIlau</i> )
Distribution of Managed Forest zone	Divided into 3 zones ( <i>BorongKaramaka, BorongBatasayya / Tattakkang, BorongLuarayya</i> )
Status of the area	Preserved forest
Non Resource Determination	Zone Based on <i>Pasang</i>
Forest Boundaries	Area Using natural barriers (rivers / <i>Kaloro</i> )
Prohibition of Exploitation	of <i>Ta'bang wood, TunuBani, Tette 'Uhe', RaoDoang</i> . (Cutting wood, burned bees, cutting rattan, catching shrimp) and using mechanical devices in <i>BorongBatasayya</i>
Harvesting of Forest Products	Very limited / quota based on <i>pasang</i>
Sanctions Violations	on Based on <i>Pasang</i>
Hydrology	Bring rain forest, serves as irrigation
Climatology	Natural signs to determine climate through wildlife behaviour, the behaviour of insects, birds, natural phenomena and types of rain
Abstinence Prohibition	/Restrictions to ensure forest sustainability ( <i>TunuBani, Ta'bangKaju, Rao 'Doang, Tette' Uhe '</i> )
Biodiversity	Useful Flora and Fauna.

The Research shows that Kajang customary communities have local knowledge in managing their forest in the form of : the distribution of indigenous forest which is divided into 3 zones, namely first zone, termed as *borong karamaka* or sacred forest. The concept is similar to protected forest area according to forest distribution applied

to the various forest areas managed by the state. The second zone is called Borong Batasayya, defined as forest boundary or delimiter. Utilization *borong batasayya* can only be done for the purpose of building public facilities and build a house. The purpose of building house only applies to people who really could not afford. The third zone is called outside forest (*Borong Luarayya*) or wide forest because it is indeed the forest zone. In essence it encapsulates all forest areas used by the public. This division is similar to zoning in the state forest consisting of core areas, buffer zones and areas of cultivation. This ecological function of forests contributes to the natural balance the planet needs [9]. Knowledge of the hydrologic cycle and the role of forests in regulating water system firmly and clearly indicated in the *Pasang* that it is the forests which bring water and make the springs. Water is the source of life therefore *Pasang* regulate forest utilization properly and firmly. Some natural phenomena are also used by the Kajang Indigenous Community as climate clues; even the rain have been grouped into several types according to the observations and experiences of Kajang Indigenous Communities [10] also stated that forest is play a major role in the water cycle by preventing loss, providing ground water and purifying water. Abstinenes/*Pammali* or *Kasipalli* is an unwritten law upheld and obeyed by Kajang Indigenous Communities. Public belief in *Kasipalli* always held firmly. Its main function is as a conviction to form a sublime personal and character education media. Levels of these restrictions starting form *Kasipalli* (*abstinence*), *Karrasa* (*sacred*) and *Talama'ring* (*forbidden/severe restrictions*). In particular, four organisms are very prohibited for exploitation. All four of these organisms are very important in controlling ecosystems ultimately in food chain system.

### 3.2. Local Knowledge in Forest Management

The knowledge referred to in this case is knowledge of forest management carried out by the agencies or parties outside traditional institutions. In general, this knowledge consists of the distribution of forest complex based on the determination by law, the status of the region, restrictions and sanctions as well as harvesting. More can be summarized and presented in Table 2.

**Table 2:** Non-local Knowledge in Kajang Customary Forest Management

Element	Local Knowledge
Division of Forest Complex	Divided into several complexes
Distribution of Managed Forests zone	Based on the function (Protection, Buffer, Agriculture)
Status of the area	Production Forest
Resource of Zone Determination	Based on Legislation Provisions
Forest Area Boundaries	Using artificial and administrative boundaries
Prohibition of Exploitation	There is no ban on the exploitation and utilization of mechanical equipment
Harvesting of Forest Products	There is no restriction / quota.
Sanctions on Violations	Based on Legislation

The local communities conserve forest tree species traditionally either for religious practices [11] Also, forest resources have an economic function; they provide timber, raw materials for pharmaceutical industries that use vegetable fiber and Non-Timber Forest Products. Agro-forests provide raw materials such as rubber, Arabic gum, spices etc [10]. Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations [12].

Biodiversity of flora and fauna are forest wealth that can provide benefits for Kajang customary Community at least four aspects of the economic, ecological, health and development of science. Forests economically benefit either directly or indirectly to the public.

Farming activities depend very much on the ecological integrity of the forest that exists in customary forest, although farming done outside the traditional forest area, but the existence of water sources in the area of customary forest is determining factor to sustainability of several rivers in the surrounding forest.

There are traditional administrative setups in the community for enforcing these practices but their ultimate authority is presently eroded by modern administrative setups [11]. Government through forestry and plantation services in Bulukumba district then issued regulations to manage the forest by setting the status of the forest, then ban and sanctions. The overall are implemented in Kajang customary forest, but concession right not given in this area. Sanctions imposed on offenders rules first pending resolution from Ammatoa, then the court case continues.

### ***3.3. Dialectics and Non-Local Knowledge in Natural Resource Management***

The most prominent dialectics is the status of forests; non-local knowledge comes from Dishutbun set Kajang customary forest as production forests, while Kajang customary Communities establish its forest area as protected forests. Another aspect is the boundary area; Kajang customary communities using natural boundaries while forestry and plantation services in Bulukumba district utilizes a peg as boundary area which of course will give the different extents.

Exploitation and using mechanical equipment are very prohibited in the indigenous forests while its status as production forest technically do not prohibit exploitation and use of mechanical equipment. Likewise the quota of cutting timber, Kajang customary Communities set quotas to cut timber while DISHUTBUN not set quotas.

If people commit offenses, then customary law derived from pasang applied, while the forestry and plantation services in Bulukumba district set penalties according to applicable law. In addition to financial penalties, the penalty imposed by the Kajang customary Community is also social sanctions and isolation.

The forms of dialectics in general consists of three forms, namely: the coexistence in form of mutual recognition of local and non-local knowledge primarily on setting boundary area, dominance in the form of assertion pasang that regulate the use of forest area and hybridization in the form of combining sanctions from indigenous knowledge based on pasang and from the government under the law. More presented in Table 3.

**Table 3:** Local and and Non-Local Knowledges Dialectics in Kajang Indigenous Community

Local Knowledge	Element	Non-Local Knowledge
Divided into two complexes ( <i>Pa'rasangangIraja and Pa'rasangangIlau</i> )	Division of Forest Complex	Divided into several complexes
Divided into 3 zones ( <i>BorongKaramaka, BorongBatasayya, BorongLuarayya</i> )	Distribution of managed Forest zone	Based on the function (Protection, Buffer, Agriculture)
Preserved forest	Status of the area	Production Forest
Based on <i>Pasang</i>	Basis for Zone Determination	Based on Legislation Provisions
Using natural barriers (rivers / <i>Kaloro</i> )	Forest Area Boundaries	Using artificial and administrative boundaries

**Continued Table 3**

Local Knowledge	Element	Non Local Knowledge
<i>Ta'bang kayu, TuniBani, Tette 'Uhe', RaoDoang.</i> (Cutting wood, burning bees, cutting rattan, catching shrimp) and using mechanical devices in <i>BorongBatasayya</i>	Prohibition of Exploitation	There is no ban on the exploitation and use of mechanical equipment
There is quota for Harvesting of Forest Products	Harvesting of Forest Products	There is no restriction / quota.
Based on <i>Pasang</i>	Sanctions on Violations	Based on Legislation
Forest Bring rain, serves as irrigation	Hydrology	-
Natural signs to determine climate through wildlife behaviour, the behaviour of insects, birds, natural phenomena and types of rain	Climatology	Based on scientific calculations
Restrictions to ensure forest sustainability ( <i>TunuBani, Ta'bangKaju, Rao 'Doang, Tette' Uhe'</i> )	Abstinence / Prohibition	Under the legislation in force
Useful Flora and Fauna.	Biodiversity	-

Forests are one of the major sinks and sustainable forest management (SFM) is needed to prevent deforestation and its negative effects on natural ecosystems [13]. Sustainable forest management (SFM) has become one of major environmental debates for the international community. This is because of the multifunctional importance of forest resources for the entire planet, namely ecological, socio-economic, cultural and climatic balance [12].



Ecosystem management in the future done with attention to the dialectic between the government, private parties, Kajang customary community and other parties. Necessity to achieve a natural meeting point for various interests in order to generate justice between each generation is the main target of the ecosystem management. Resources managed by considering any individual interests, must be passed by in a good way and good condition for future generations.

Another thing to consider is placing Kajang customary community as a central point in the forest management, while the farms, markets, technology and so on only serve as a sub-system. Placing Kajang customary community as a central point will lead to their independence upon themselves, the group and the environment. These conditions will continue to preserve the forest with all the functionality and sustainability of pasang teaching as the driving force behind the screen.

Development customary forests for the survival of Kajang customary community life should be a priority, because without forests, livelihood of Kajang customary community will also disappear and only leaving the story for future generations. Therefore local knowledge owned by Kajang customary community which has wisdom of experience-based knowledge has the potential to contribute to the development of forestry development from a local, regional and national levels.

#### **4. Conclusions and Recommendations**

##### **4.1. Conclusions**

There are varieties of local knowledge in Kajang customary community to utilize forests derived from the teachings of *Pasang* which include: knowledge on forest zonation, hydrology, natural phenomena, climate and farming, abstinences (*Kasipalli*), and biodiversity. While the non-local knowledge that comes from government gives influence in the form of division of forest complex based on its functions, exploitation restrictions, and sanctions based on legislation. Referrals ecosystem management in the *Ilalang Embayya* is to reconcile local and non-local knowledge of the main elements that have been hybridized and still maintain rules that are dominated by *Pasang* rules.

##### **4.2. Recommendations**

Recording that has been pioneered by [4] should be followed for the complete repertoire *Pasang* and be passed down across generations. Customary forest conditions need to be supported by the customary forest rules to get legal aspects of forest management, as well as support from other *stakeholders*.

#### **References**

- [1] Salman D., (2003). "Kerangka Community Development Untuk Pengelolaan Social Forestry di Indonesia. Makalah, disampaikan dalam "Pembekalan bagi fasilitator/LSM", " Balai pengelolaan DAS Jeneberang Walanae, 3 November 2003.

- [2] Ibrahim T., (2001). " "Pasang", Studi Kelembagaan Yang Menunjang Pelestarian Sumberdaya Hutan di Desa Tana Toa, Kecamatan Kajang, Kabupaten Bulukumba, Sulawesi Selatan," Thesis Program Pasca Sarjana, Universitas Hasanuddin. Tidak Dipublikasikan.
- [3] Sallatang M. A., (1965). "Pendjasadan Pasang Dalam Masyarakat Kadjang," Fakultas Sastra, Universitas Hasanuddin, Makassar. Tidak Dipublikasikan.
- [4] Usop, K. M. A. M., (1978). "Pasang Ri Kajang. Kajian Sistem Nilai Di "Benteng Hitam" Ammatoa. Pusat Latihan Penelitian Ilmu-ilmu Sosial," Ujung Pandang.
- [5] Katu S., M. Alim, Muhtamar and Shaff (Editor), (2008). "Kearifan Manusia Kajang," Pustaka Refleksi, Makassar, Cetakan Kedua.
- [6] Katu S., (2000). "Pasang Ri Kajang (Kajian Tentang Akomodasi Islam Dengan Budaya Lokal di Sulawesi Selatan)," Pusat Pengkajian Islam dan Masyarakat (PPIM) IAIN Alauddin Makassar. Cetakan Pertama.
- [7] Zoraya A., F., (2002). " Sistem Pengelolaan Hutan Adat di Desa Tana Toa, Kecamatan Kajang, Kabupaten Bulukumba, Propinsi Sulawesi Selatan," Jurusan Manajemen Hutan Fakultas Kehutanan Institut Pertanian. Bogor.
- [8] Sinohaji E., (2004). " Kearifan Lokal Masyarakat Adat Kajang Dalam Pengelolaan Hutan (Studi Kasus : Desa Tanatoa Kecamatan Kajang Kabupaten Bulukumba Sulawesi Selatan)," Thesis. Program Pasca Sarjana, Universitas Hasanuddin. Makassar.
- [9] CARPE, (2005). "Congo Basin Forests: Preliminary Assessment. Report online <http://carpe.umd.edu/product>," Accessed on April 5, 2006.
- [10] Hashiramoto O., J. Castano and S. Johnson, (2004). "Changing Global picture of trade in wood Products.," *Unasyuva* No 219, Vol. 55:19- 24.
- [11] Hundera K., (2007). "Traditional Forest Management Practices in Jimma Zone," *South West Ethiopia. Ethiop. J. Educ. & Sc.* Vol 2 No. 2 March 2007.
- [12] Mvondo S., A., (2010). "The Customary Law Nature of Sustainable Forest Management States Practice in Central America and European Union.," *Journal of Sustainable Development.* Vol. 3, No. 2; June 2010. [www.ccsenet.org/jsd](http://www.ccsenet.org/jsd).
- [13] Gençay G., U. Birben & B. Durkaya, (2018). "Effects of legal regulations on land use change: 2/B applications in Turkish forest law.," *Journal of Sustainable Forestry.* Volume 37, 2018 - Issue 8.