

EVALUATING THE ROLE OF ADAT COMMUNITY IN SPATIAL PLANNING IN PASER EAST KALIMANTAN

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Enschede, The Netherlands, March, 2014

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DISCLAIMER

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ABSTRACT

The main objective of this research is to evaluate the role of the *adat* community in spatial planning process and its effects to the effectiveness of forest management. This research uses various data from interviews, archives, field observation, to spatial data from satellite images. Hence this research has chosen the mixed methods approach to find answers of the research question. Mixed methods approach define as a method that combine a qualitative and quantitative approach. For this research a qualitative approach is conducted by using the grounded theory method. While the quantitative approach is conducted by using satellite images to detect the change of forest land cover. It aims to quantify how much the forest land are decreasing or increasing in numbers.

After investigation, this research is able to discover findings. The current spatial planning is according to the regulation and has two procedures to follow, which are the preparation procedure and the establishment procedure. Current spatial planning stakeholder are under coordination BKPRD in which the *adat* community also become the member. However the *adat* community is not involved during spatial planning process in practice. Their role in spatial planning is taken over by DISHUTAMBEN. Nevertheless the awareness of adat customary rights in spatial planning among stakeholder is strong and there is a commitment to protect the forest where the *adat* people live. The municipal government also makes efforts to participate the *adat* community even though not specifically in spatial planning. Next chapter is about the *adat* people behaviour and their understandings of customary rights and spatial planning.

The *adat* community is aware of what customary rights are and the importance of adopting customary practice into spatial planning. However they do not really understand how to relate customary rights and spatial planning because they are never invited by the municipal government to involve in spatial planning process. The municipal government also does not give them sufficient information about spatial planning.

This research also has developed grounded theories which inequity of spatial planning process to the *adat* community and sustainable forest management by the *adat* community.

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ABREVIATION

BAPPEDA	: Badan Perencanaan Pembangunan Daerah (Municipal Planning Board)
SETDA	: Sekretariat Daerah (Local Secretary)
DISTANBUN	: Dinas Pertanian dan Perkebunan (Agriculture and Estate Farming Service)
DBMPTR	: Dinas Bina Marga, Pengairan dan Tata Ruang (Road Infrastructure, Irrigation and Spatial Planning Service)
DISHUTAMBEN	: Dinas Kehutanan, Pertambangan dan Energi (Forestry, Mining and Energy Service)
BKPRD	: Badan Koordinasi Perencanaan Ruang Daerah (Municipal Spatial Planning Coordination Board)

1. INTRODUCTION

1.1. Background

The *adat* is an Indonesian term to refer a hereditary custom that become common practice to comply. The *adat* community is a group of indigenous people who has ancestral origins living in certain geographic areas and bonded by a customary law.

In Indonesia, the *adat* community is well-recognized by the government. The Basic Agrarian Law 5 (1960) is the oldest law that recognized the *adat* community customary rights. It states in article 3 that implementation of customary rights (*hak ulayat*) and others similar customary laws, as long as in fact are still exist, should be in line with the national and state interests, and should not be contrary to the Act and other higher regulations. Article 5 of the Basic Agrarian Law 5 (1960) stated that Indonesia's agrarian law for earth, water and air space is an *adat* law, as long as they do not conflict with national and state interests, which are based on national unity, Indonesia socialism and with the regulations set forth in the Basic Agrarian Law 5 (1960) and other laws. So far, the Basic Agrarian Law 5 (1960) is the basic legal framework for customary right recognition in Indonesia. Since, the Basic Agrarian Law 5 (1960) becomes a primary reference to every newer law in customary rights regulations.

Although, it has been explicitly acknowledged in Article 5 of the Basic Agrarian Law 5 (1960), recognition of *adat* or customary land rights and customary systems of tenure has become a critical element of contention in Indonesia. The root of the problem is that most of the existing implementing regulations of the Basic Agrarian Law 5 (1960) failed to elaborate the *adat* principles (Heryani & Grant, 2004). But, the Basic Agrarian Law 5 (1960) remains as the basic concept of customary rights in Indonesia. It makes available for the basic definition of customary right (*hak ulayat*) as "organized groups of permanent character with their own authority and material and immaterial capital," whose rights to land and water define them as subjects of law, sharing in judicial matters (Bakker, 2008).

The basic characteristic of the *adat* community is its dependency to forest resources. In forest areas, rights to land and water of the *adat* community are recognized by the Forestry Law 41 (1999). It becomes the legal framework of the relation between the *adat* community and forest. The article 66 of the Forestry Law 41 (1999) commands the decentralization of some forest management authority to local government to improve the effectiveness in forest management. It also recognized the customary rights of the *adat* community to forest as a part of state forest.

The *adat* community has rights: (1) to collect forest products to meet the daily needs; (2) to carry out forest management practices according to customary laws which do not conflict with official legislation; (3) to receive compensation to improve their well-being if they have a lack of access to the forest due to forest land segregation; (4) to enjoy the benefits of forest environment; (5) to get information about development plans for forest uses and exploitation; and (6) being a part of forest protection and management. The forestry law explicitly states the criteria by which the government can recognize the legal existence of *adat* communities. These criteria include: (1) the relative sustainability in the use of natural resources; (2) the presence of strong social cohesion and traditional institutions; (3) the high reliance of communities on the exploitation of natural resources; and (4) the tradition of conservation measures (Eghenter, 2006). It legally makes a sense that the *adat* forest is a part of the forest management. Even though, in practice, there is no consistent understanding or well-defined legal process for how customary land claims should be justified or which rights are conferred by *adat* (Moeliono & Dermawan, 2006). However the Forestry Law 41 (1999) has established a good foundation to involve the *adat*

community in forest management as a branch of forestry concerned with the overall administrative, economic, legal, and social aspects through public participation model in managing forest resources toward sustainability and public acceptance (Ananda, 2007).

In 2007, the *adat* community gained more rights to involve in national policies because of the promulgation of spatial planning Law 26 (2007). After this law enacted, the *adat* community involvement had been broadened to spatial planning instead of forest management only. According to Spatial Planning Law 26 (2007), then elaborated by the Government Regulation of National Spatial Plan 26 (2008), the *adat* community role is recognized and has a special right in using space, particularly in the forest areas. Meaning, the *adat* community has a legal position to affect spatial planning policy particularly the spatial policy of the forest.

However, involving the *adat* community in spatial planning process is not an easy practice. Even though it is a concrete effort to involve particular groups with less capability and opportunity like the *adat* community, it is certainly challenging. Contesting claims, unclear government guidelines, varying interpretation of the *adat* rules, disputing or ignoring the status of customary right by other groups, and disagreement by the *adat* authorities are various examples of the problem (Bakker, 2008). Also, the involvement of the *adat* community in spatial planning process had limited attention and awareness (Samsu, Suramenggala, Komarudin, & Ngau, 2005). Customary rights exist on the ground, but in practice it is not taken into account in spatial planning, and not properly accommodated in spatial planning process (Moeliono & Dermawan, 2006; Nizar, 2010; Samsu et al., 2005; T.Kusumanto, 2007).

Though, it is believed that the involvement of the *adat* community rights in spatial planning process is a way to create fairly communication of perspectives among stakeholders with different background and to design consensus of goals (UNDP, 2009). It is seen as an approach of ensuring that spatial planning policy is effective and engaging the imperative of sustainability in forest management (Baker, Hincks, & Sherriff, 2010; Robinson, 2003). To test the approach in reality, a case study will be undertaken in Paser Municipality, East Kalimantan. In this area, there are four *adat* villages which are Rantau Buta, Rantau Layung, Muluy and Swan Lutung.

1.2. Justification

This research is aimed to contribute to the application of spatial policy evaluation as a part of framework of the Governance and Spatial Information Management research topic within the Faculty of Geo-Information Science and Earth Observation. It is common that policy evaluation is a useful tool (Dunn, 2012), but it is less-used particularly in the field of the *adat* community involvement in spatial planning. The involvement of the *adat* community is seen as an key issue of successful spatial planning policy in Indonesia, but it is rarely elaborated how the *adat* community is involved and how to measure the effect of *adat* community involvement to the effectiveness of the forest management in which they depend to.

1.3. Research Problem

Since 2007, a new spatial planning law had been implemented. Spatial planning Law 26 (2007) replaced the old law with a more decentralized regulation. It made a major change especially in recognition of community participation including the *adat* community. Spatial planning Law 26 (2007) explicitly states that the *adat* community has a special right in respect with their customary rights particularly in forest areas. However, this major change brings some difficulties of Spatial Planning Law 26 (2007) implementation in practice. There are several general problems regarding the involvement of the *adat* community in the decentralized spatial planning process particularly in forest areas, which are:

- The involvement of the *adat* community has limited attention and awareness in spatial planning process (Samsu et al., 2005).
- In practice, customary rights are not taken into account in spatial planning, and not properly accommodated in spatial planning process especially dealing with the forest land issue (Moeliono & Dermawan, 2006; Nizar, 2010; Samsu et al., 2005; T.Kusumanto, 2007).
- In the forest management, the decentralization has become an issue for some times. There are debates how to make a balance between a centralized state timber management and a local based management which the *adat* community is entitled to be involved to warrant the effectiveness of forest management (Ananda, 2007; Kusumanto & Sirait, 2001).

By considering those problems above, this research formulates its assumption. The assumption here is that, if the *adat* community is involved in spatial planning process, it will affect the effectiveness of forest management. The next section will elaborate objectives of this research.

1.4. Research Objectives

The aim of this research is to evaluate the role of the *adat* community in spatial planning process and its effects to the effectiveness of forest management. As known, the *adat* community involvement in spatial planning is mandated by spatial planning Law 26 (2007) that has been implemented since 2007 in Indonesia. Referring to an evaluation, this research eagers to reveal the extents of the *adat* community involvement in spatial planning as a goal of spatial planning policy that has to be attained.

In order to make this research doable, the general objective is scaled down into three specific objectives which are:

1. To describe the current spatial planning process and how it is involving the *adat* community.
The description of the current spatial planning process and how it is involving the *adat* community is important for giving a critical comparison between the rule and the practice. Also, it is necessary to understand how the *adat* community interacts with the other stakeholder and how the *adat* community gets the benefit from this interaction.
2. To find out the customary right awareness of the *adat* community in spatial planning process.
It is intended to understand the awareness among the *adat* people about their basic customary right and how the *adat* people use it in dealing with spatial planning issues.
3. To measure the effect of the *adat* community involvement in spatial planning process to the effectiveness of forest management.
It attempts to measure the effect of *adat* community involvement in spatial planning to the effectiveness of forest management. The measurement will be conducted by using sustainability values as indicators.

1.5. Research Question

With the aim of achieving the purpose of research as described above, this study endeavours to answer three research questions.

1. How does the current spatial planning process work and involve the *adat* community?
The first research question explores the current spatial planning process work in municipal level with particular focus on how the process involves the *adat* community. By emphasizing the involvement of

adat community in spatial planning process rather than only the current municipal spatial planning process, this research question also includes the role of *adat* customary right in spatial planning process. Along these lines, this research is aimed at understanding how the involvement of the *adat* community in the current spatial planning process works and how the current practice reflects the interaction between the *adat* community and other spatial planning stakeholder.

Besides this, it is also purpose of this research to explain on how the involvement of the *adat* involvement is taking account into spatial planning policy making. Given the time length, this research is limited to the formulation of the formal aspect of spatial planning (i.e.: laws, regulations) and opinions of the official of the key institution in municipal spatial planning.

2. Is the *adat* community aware of its customary right in spatial planning?

While the first research question focuses on the current spatial planning process work and the involvement of *adat* community, the second question is aimed at producing the description of the *adat* community awareness on customary rights in spatial planning. This research question outlines the empirical focus on the different ways. While the first question has a broad scope in term of respondents and data sources, the second question is limited to the understanding of the *adat* community awareness on customary rights and spatial planning. With the question above we also specify a geographical focus on four *adat* villages which are Rantau Buta, Rantau Layung, Muluy and Swan Lutung. Every village has its own elder that represent villagers for public participation. In this way it becomes more feasible to explore in detail their own view about customary rights and spatial planning.

This research question limits the scope of research to a specific practice of the *adat* community on how they understand the customary rights and spatial planning. The research question explores the understanding of the *adat* elder about forest-related daily activity, customary rights, and spatial planning understandings to the *adat*.

3. If a part of the *adat* community was aware of their customary right in spatial planning, did it affect the effectiveness of forest management?

The last question is aimed at the implication of the awareness of the customary right in spatial planning to the effectiveness of forest management. Basically, it takes together the findings of the other two questions in order to reflect what kind of situation has been improved after the involvement of *adat* community in spatial planning process. The answer to this question therefore involves making concrete suggestions to the implementation practice of spatial planning Law 26 (2007) in Indonesia.

In the following we try to deliver evidence of the above questions, given the time limitation enforced on this research. Nonetheless, this research expects to anticipate some of challenges that possibly will await by noticing the issues the government faced. Thus, this research is intended to contribute to some extent to the development of better policies to involve the *adat* community in spatial planning.

1.6. Research Design

With regard to research questions, three methods are being proposed to answer those questions.

1.6.1. Method to Describe the Current Spatial Planning Process and How the Adat Community Involves

In order to describe the current spatial planning process and how the *adat* community involves, a combination of *desktop research* and interviews will be undertaken. Desktop research refers to seeking facts, general information on a topic, historical background, study results, etc., that have been published or exist in public documents ("Understanding Research," 2013). In this case, it will be mainly related to a legal research of spatial planning process in Indonesia. It generally involves tasks such as: 1) finding primary

sources of law, or primary authority, in spatial planning process within the jurisdiction of Republic of Indonesia (cases, statutes, regulations, etc.); 2) searching secondary authority (for example, government manuals in spatial planning, government publication explaining or summarizing the law, etc.), for background information about a legal topic; and 3) searching non-legal sources for supporting information (newsletter, current practice reports, etc.). The interview will be designed to understand 'what actually happens on the ground', to validate whether documents has been implemented or not. Interviews with local government officials will be conducted.

This research will be addressing the following issues:

1. What is the standard procedure of municipal spatial planning in Indonesia?
2. Who are stakeholders in spatial planning process? What interest do they have? And what roles (expected and existing) do they play?
3. What are the supporting factors and demotivating factors for their involvement?
4. What are the perceptions of each stakeholder about the customary right of the *adat* community?
5. What is the position of the *adat* community amongst other spatial planning stakeholders?
6. How is the *adat* community involved in spatial planning?

1.6.2. Method to Find Out the Customary Right Awareness of the Adat Community in Spatial Planning

In our case an elite interview will be conducted. Due to cultural and technical restrictions, *adat* community elders have to be chosen as the key informant. It assumes the elders are the elite of *adat* community who are influential, prominent and well-informed (Hughes, 2002). At least, one *adat* community elder will be selected for each village. The interview will be based on open and closed questionnaires that will address two aspects which the *adat* community daily life practice and the *adat* community understanding about customary rights in spatial planning. The *adat* community daily life practice will address issues of values changing in using forest resources and how the *adat* community interacts with external activity such as logging companies that might be doing business near the *adat* village. General questions are followed.

1. Does the *adat* community know its customary right? How do they interpret this customary right? Does the *adat* community know that, by the law, they must be involved in spatial planning process? And what extent do they know their customary right in spatial planning?
2. Is the *adat* community aware of benefits of being involved in spatial planning?
3. Does the *adat* community know how some rules in spatial planning law might restrict their customary rights?
4. To what extent does the *adat* community participate in spatial planning process?
5. What are values changing on using the forest resources?
6. Is there any impact from the external activity? And to what extent are external activities affecting the *adat* community in term of forest management?

1.6.3. Method to Measure the Effect of the Adat Community Involvement in Spatial Planning to the Effectiveness of Forest Management

An assessment will be conducted to measure the effectiveness of forest management due to the *adat* community involvement in spatial planning using a combination of desktop research results, interview excerpts and images. In this case, effectiveness will be measured by using sustainability values.

Effectiveness is often used as a criteria in policy analysis and evaluation. Effectiveness refers to the principle that an alternative should promote the achievement of a valued outcome action, and measured by their units of products or monetary values (Dunn, 2012). It is a technical rationality that a policy can

be explained in a certain measurement instead of keeping it abstract. Effectiveness is apparently a useful criteria to evaluate policy. It can be applied retrospectively (*ex-post*) to measure needs, values, and opportunities that have been realized through public policies.

Since spatial planning is a long term policy, sustainability aspects are strongly emphasized and being the main criteria as stated in spatial planning Law 26 (2007). A spatial planning policy can be said as an effective policy if it promotes sustainability. For the *adat* community involvement in spatial planning process case, sustainability will reflect on how the *adat* community manage their forest as forest dependent is their main characteristic.

Adopting sustainability values as indicators to assess the effectiveness of forest management due to the *adat* community involvement in spatial planning is contentious, since it is proven that the sustainability is difficult to apply in the non-western world. The sustainability values are claimed only representing Western epistemology and scientific discourse and neglecting the local or indigenous knowledge (Breidlid, 2009). Moreover, there are also debates between those who prefer the three pillars of sustainability (stressing the dimension of social, economic and ecology) and those who prefer the dualistic typology (emphasizing on the relation of ecology and socio economic). These debates lead to the lack of definition precision and bring the vagueness of sustainability concepts (Gibson, 2001; Robinson, 2003). Hence this research is conscious with the issue of the sustainability values in building indicators by emphasizing on the local knowledge of the *adat* community.

Furthermore, the development of sustainability criteria should consider principles of sustainability and adjust those principles to the local context. Principles of sustainability comprise general principles of integrity, sufficiency and opportunity, equity, efficiency, democracy and civility, precaution and immediate and long term integration (Gibson, 2001). At this point, this research tries to formulate sustainability indicators by combining the sustainability values as known in the West scientific discourse (emphasizing the three pillars of ecology, social, and economic) and the indigenous people knowledge.

The difficulty to integrate the sustainability values and the indigenous knowledge of the *adat* people is the incompatibility of philosophical background amongst them, particularly in the pillar of economic. Materialistic or tangible approaches often use as to achieve the economic sustainability such as reducing negative environmental impacts per unit of economic activity by developing industrial ecology, eco-efficiency, or bio-mimicry (Robinson, 2003). While, the indigenous knowledge of the *adat* people mainly source from intangible values. The belief system of indigenous people is the holistic nature of interrelationship between human, nature and spiritual world (Breidlid, 2009). In this case, the community solidarity is more important than an individual merit, the growth of common property belonging is more predominant than the personal richness of property, and the ancestor practice-based relation with the nature is more practical than exploiting the nature to achieve future goals. Therefore this research proposes the indigenous knowledge-based indicators of sustainability.

In developing indigenous knowledge-based indicators of sustainability, this research makes some iterative process starting with the pillar selection, then suitable principles and ends with proposed indicators. Since debates of which the pillar approach is more precise to define the sustainability are not settled yet (Robinson, 2003), this research inclines to the two pillar approach in which stressing on the importance of the nature and socio economic factors. The two pillar approach is more sensible for this research because it implies the integration of tangible economic values into social terms in line with the indigenous knowledge of the *adat* people. According to Robinson (2003) the socio economic factor has imperatives on adequate material standard of living of all and provide systems of governance that spread the values

that people want to live by, while the nature factor has an imperative to stay within the biophysical carrying capacity of the planet.

In regard to the two pillar approach as selected above, this research go on to select the suitable principles for assessing the effectiveness of forest management due to the *adat* community involvement in spatial planning. As said by Gibson (2001), principles of sustainability are general and need further elaboration and specification for their implications. Here further elaboration and specification are provided by checking the compatibility of sustainability principles with the indigenous knowledge of the *adat* people.

After carefully understanding the definition of each principles proposed by Gibson (2001), this research has decided to exclude two of principles which are efficiency and long term integration. The decision has made by considering the efficiency principle is not in line with the indigenous knowledge of the *adat* people. Efficiency principle is define as decreasing total material and energy burdens and other strains on socio ecological systems. This materialistic definition is not applicable to the indigenous knowledge of the *adat* people because the nature of indigenous knowledge is also considering the spiritual world. Furthermore, the long term integration principle is also excluded in this research because the principle implies the integration of efficiency, equity and ecology. The integration matter itself has been considered through the selection process of the pillar approach selection so it is not necessary to use redundant principle.

This research also proposes to synthesize the principle of integrity and precaution as a biodiversity indicator because both principles imply the value of maintaining the irreplaceable supports function upon which human well-being depends and avoid the irreversible damage of supports. This implication basically refers to the biodiversity resilience which is the capacity of ecosystem to absorb disturbance and reorganize while undergoing change so as to retain essentially the same function, structure, identity, and feedbacks (Folke et al., 2004; Gibson, 2001). Afterwards, this research convert the selected principle as indicators of sustainability that have been adjusted to the indigenous knowledge of the *adat* people. Table 1 describes indicators of sustainability in correspondence with pillars of sustainability.

Table 1 Indicators of Sustainability

Pillars	Indicators
Socio economic	Equity
	Sufficiency and opportunity
	Democracy and civility
Nature	Biodiversity

Each indicators will be explained as follow.

1. Equity

Equity is closely related to legal and social rationality and refers to the distribution of effects and effort among different group in society (Dunn, 2012). In the policy making, equity means all of the stakeholder has the same right in decision making efforts and get the same effects from the policy goals. Adopted this understanding to spatial planning, the process can be defined as equal if all of stakeholder have identical rights to make efforts in spatial planning decision and get same effect from spatial planning goals as well. Additionally, to assess whether the current spatial planning process is promoting an equity value or not, concepts introduced by Stone (2012) are used.

Stone (2012) said measuring equity as a policy goal could be done by identifying and defining the three dimension of equity which are recipients, items and process. Each of the dimension has critical questions that can be used in the survey to spatial planning stakeholder. Several questions in corresponding with the concept are formulated, as described in Table 2 below.

Table 2 Question in Equity Dimension adapted from Stone (2012)

Equity dimension	Question
Recipients	Who is 'the eligible <i>adat</i> community' in spatial planning? And what criteria are used to make them eligible?
Items	Does the <i>adat</i> community know rights for being involved in spatial planning? What extent does the <i>adat</i> community define the rights?
Process	What kind of spatial planning process is being used? Does the <i>adat</i> community feel satisfied with the process?

After knowing the answer of those questions above, the assessment of equity will be the following process by using criteria of each dimension. It assumes that the *adat* community involvement in spatial planning promotes the equity value if:

- (1) the *adat* community has an eligibility for being involved in spatial planning;
- (2) the *adat* community can understand and define rights both in spatial planning and forest management; and
- (3) the *adat* community is involved in a certain mechanism of spatial planning of which they are satisfied.

2. Sufficiency and opportunity

Here the indicator has two things (sufficiency and opportunity) that will be explained one by one. First, sufficiency means ensuring that every person in the community has an adequacy for a decent life or making sure everyone meets their needs, without negotiating the ability of the future generation to meet their own need (Gibson, 2001). Here, the keyword of sufficiency is 'need'. The simple definition of need is what is necessary for complete physical survival, in simpler words need means what every person should have to stay alive (Stone, 2012). In the context of the *adat* people, the definition of sufficiency could be slightly different. Since the *adat* people are dependent to forest resources, then the definition of sufficiency should relate to this forest dependence. At this point the sufficiency is described as what the people get from the forest to meet their basic needs in such a way that prevent the forest resources from being exhausted.

Second, opportunity is defined as the way to make sure that everyone has chances to find improvements without neglecting the right of future generation to have the same sufficiency and opportunity (Gibson, 2001). Within the *adat* community, the role of the ancestor, the elders and the spiritual world play major roles in creating the equal opportunity. The ancestors, the elders and the spiritual world are guarantors that the equal opportunity for everyone will not collapse and the solidarity of the group is still preserved (Bredlid, 2009). It can be concluded that the equal opportunity for the *adat* people will exist if the solidarity of the *adat* people is maintained by the ancestors, elders, and spiritual world.

It assumes that the *adat* community involvement in spatial planning promotes the sufficiency and opportunity value if:

- (1) The *adat* get benefits from the forest to meet their basic needs in such a way that prevent the forest resources exhausted;
- (2) The *adat* solidarity is well maintained to create the equal opportunity among them.

3. Democracy and civility

Gibson (2001) defines democracy and civility as developing capacity to implement sustainability principles through a better governance that maintains the relationship between market mechanisms, customary practice, and individual choice. Civility itself refers to proprieties in conducting the mechanism. The function of the better governance in applying sustainability principles can only be achieved if the stakeholder have a sense of obligation to follow the authorities and the law in order to build trust and confidence among them. In other words, the better governance can only be developed by internalizing the legitimacy values among the stakeholder (Paloniemi & Vainio, 2011).

Democracy and civility also imply the importance of people empowerment in ways that respect to local knowledge as tools to enhance individual and collective welfare (Gibson, 2001). Empowerment is a process in which an individual inner motivation increases and encourages to make individual discretion (Paloniemi & Vainio, 2011). In the context of the *adat* people, the democracy and civility value implies the *adat* community is sustainable community if they have a legitimate governance to apply sustainability principles within their society to achieve individual and collective welfare and voluntarily doing it.

So, the *adat* community involvement in spatial planning promotes the sustainability values if the *adat* community voluntarily applies the principles of sustainability through a legitimate system of governance in spatial planning.

4. Biodiversity

Biodiversity is the core value of sustainability because issues of maintaining biophysical systems is the major background of the emergence of sustainability concept (Gibson, 2001). In this sense, the biodiversity emphasizes on the importance of the human behaviour in using and preserving the nature. Since the *adat* people are dependent to the forest, the issues related to biodiversity within the *adat* community is also associated to the way the *adat* people manage the forest. The *adat* community is assumed implementing biodiversity value if the *adat* community practice a sustainable behaviour in how to exploit land within forest and maintains the number of forest areas.

1.6.4. Using Geo-information Technology to Provide Visual Evidences on Biodiversity

For a specific purpose to measure biodiversity indicator, this research proposed to use Geo-information technology particularly the remote sensing technique. It is widely known that using technology in geo-information to observe what happens on the earth surface is a relatively cheap and less time consuming (Rogan & Chen, 2004). This research will use a technique in satellite image processing to undergo the measurement of biodiversity value. It is assumed that spatial planning should secure the number of forest for all the *adat* community member. It means the number of forest areas should not decrease after the implementation of spatial planning policy. To find out the evidence whether the forest number increases or decreases, this research will use multi temporal images to under a change detection technique.

A change detection technique is useful image analysis technique to detect the vegetation disturbance caused by natural phenomena (i.e.: fire, flood, tsunami, etc.) or human activities (i.e.: land conversion, resources exploitation) that happen on earth surface (Coppin & Nackaerts, 2004). The change detection

technique mainly rely on accurate multi temporal images. At least, two different images that acquired from two different time must be used. The images will be processed under the image process software environment. The end result of this image analysis is a result map visualizing the forest coverage that increasing or decreasing. Steps to conduct the change detection technique is illustrated Figure 1.

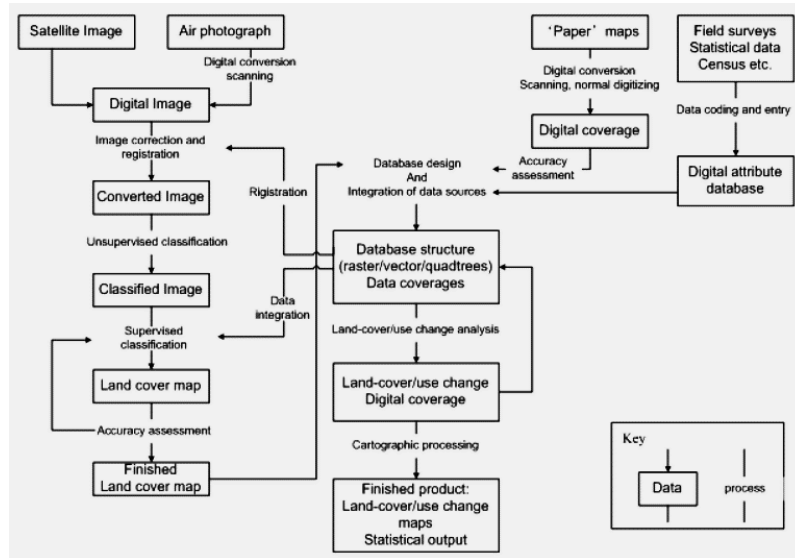


Figure 1 RS/GIS land cover/land use change analysis from Michalak (1993)

1.7. Data Collection

This research depends on various sources of data. The data was collected during the fieldwork period in October 2013. There are three data collection that have been conducted. First, it is the desktop research data collection which is a technique to acquire data through the internet. From this desktop research data collection, several data has been acquired which are documents of laws, regulation, and government publication related to the *adat* community involvement in spatial planning process. It also covers collecting images from *glavis.usgs.gov* for Landsat TM Images and selecting the best quality image from 2001 to 2013. The second data collection is the institutional visit. It was a visitation to the Ministry of Agriculture office in Jakarta to get high resolution images. The third survey was an interview with both the local officials and the elder of the *adat* community. The interviewees were officials from five main institutions of municipal spatial planning (Local Planning Board/BAPPEDA; Forestry, Energy and Mining Service/DISHUTAMBEN; Spatial Planning, Road Infrastructure, and Irrigation Service/DBMPTR; Local Government Secretary/SETDA; Agriculture and Estate Farming Service/DISTANBUN), and five elders of the *adat* community (1 chairman of the Council of Adat Paser; 4 elders from 4 *adat* villages).

1.8. Thesis Structure

This research is organized into seven chapters. The first chapters will consist of the background, the problem statement, significance of the study, research objectives, research questions and this research design.

The second chapter will contain the conceptual and theoretical review based on literatures. It includes the concept of spatial planning in Indonesia, the concept of forest resources management, the *adat* community involvement in legislation and practices, and policy monitoring and evaluation concept.

The third chapter will consist a detailed methods that are being used during this research. It includes this research techniques, the study area and the selection of respondents, sources of data and the collecting method of data, the method of data analysis, issues of reliability and validity of this research outcome, and limitations of the study.

The fourth chapter will consist an overview of spatial planning development in Indonesia, spatial planning practices and how the *adat* community involves during the process of spatial planning.

Chapter five will present the *adat* daily practice and their understandings of customary rights in spatial planning. Meanwhile, chapter six will present the assessment of the *adat* community in spatial planning based on the sustainability indicators.

Chapter seven will conclude the result of this research and provide recommendation for further research.

2. RELATED CONCEPTS ON THE ADAT COMMUNITY INVOLVEMENT IN SPATIAL PLANNING PROCESS

2.1. Introduction

This chapter is a review of the literature and provide insights about the *adat* community involvement spatial planning process. It also covers discussions about the definition of the *adat* community, the *adat* customary rights and the *adat* community involvement in spatial planning process. It also will provide reviews about how the *adat* community involves in the forest management. The chapter will be closed with the discussion of the effectiveness evaluation and conclusion.

2.2. The Definition of Adat Community

The *adat* community is an Indonesian term for global term of indigenous people. According to International Labour Organization Convention (ILO, 2009), indigenous people is ethnic group in independent countries who have distinct social, economic, and cultural conditions compared to the other community within the country. They also have status that are regulated by laws of their own customs or tradition, either entirely or partially. It similarly includes people in independent countries who have inhabited the country since its independence or the time of colonization and retain some or all of their own social, economic, cultural and political institution. Moreover, the convention sets fundamental criteria for determining the indigenous group. The criteria consist of their own historical continuity with pre-colonial societies; the close relationship with the land and natural resources of their own territory; their peculiar socio-political system; their own language, culture, values and beliefs; not belonging to the dominant sectors of their national society; and seeing themselves as different from it. Regarding to their rights, indigenous peoples should participate in the use, management and conservation of renewable and non-renewable natural resources. Indigenous peoples shall not be removed from the lands that they live in and if they must be relocated as an exceptional measure, relocation shall be conducted only with their free and informed consent and with assured right of return and proper compensation (Borrini-Feyerabend, Kothari, & Oviedo, 2004).

The *adat* community also can be defined as a community of indigenous people who has a similar hereditary ancestor living in certain geographical areas, having a value system, ideology, politics, economics, culture and social condition as well. Their cultural traditions are associated with certain place of living without a migratory family history (Cooke, 2006; Sirait, Fay, & A.Kusworo, 2001).

From the Government of Indonesia view, the *adat* community is defined as a group of people who has a habitation similarity or heredity or ancestral bond and are bonded by a specific customary law as the community law. They are living in certain geographic areas, have a strong relationship with the environment, and have the existence of value system determining economic, political, social, and legal institution (Strategic Environment Assesment Law 32:2009; State Minister of Agrarian 5:1999). This group of people is eligible to be entitled of customary rights if they have some criteria which are: (1) the people have their own customary law which is recognized and applied in their daily living; (2) they have certain customary land as living environment of the community and they depend on those land for their daily life purpose; and (3) they have a customary law that is applied to those land in term of management, control and use.

Thus, the *adat* is an Indonesian term to refer a hereditary custom that become common practice to comply. The *adat* community is a group of indigenous people who has ancestral origins living in certain geographic areas and bonded by a customary law.

2.3. The Adat Customary Right

As indigenous people, the *adat* community has the customary right as well. The *adat* customary right is also called as *bak ulayat*. It is an Indonesian term to refer the customary right. The implementation of the *adat* customary right is recognized by the Basic Agrarian Law 5 (1960). It is stated that Indonesia's agrarian law for earth, water and air space is *adat* law, as long as they do not conflict with national and state interests, which are based on national unity, Indonesia socialism and with the regulations set forth in the Basic Agrarian Law and other laws.

According to Bakker (2008), *bak ulayat* is similar to *beschikingsrecht van de gemeenschap*, a concept originating in Dutch colonial law and used extensively. The concept called the *adat* as organized groups of permanent character with their own authority and material and immaterial capital whose rights to land and water define them as subjects of law, partaking in judicial matters.

A significant recognition of the *adat* customary right is established by the Forestry Law 41 (1999). There are several articles concerning the *adat* customary right:

- Article 5 defines forest is either a) 'state forest' or b) 'private forest' (*hutan bak* = literally forest covered by rights). State forest may include customary (*adat*) forest. The state determines the status of the forest. Customary forest is defined by the presence of the 'relevant indigenous community' and the recognition of their presence. Forest management rights return to the state if the 'relevant indigenous community' is no longer there.
- Article 67 states the *adat* rights to:
 - a. collect forest products (*usufruct*) to meet that community's everyday needs;
 - b. carry out forest management practices according to customary laws which do not conflict with official legislation; and
 - c. receive reimbursement to improve their well-being.
- Article 68 elaborates more about the right of the *adat* community. The community has the right to enjoy a (good) quality forest environment. It may also derive benefits from the forest and forest products in accordance with existing legislation; get information about plans for forest use and exploitation; provide information, suggestions and opinions on forestry development; supervise the implementation of forestry developments directly and indirectly. Communities living in and around forests have the right to receive compensation for the lack of access to forests caused by the demarcation of forest lands, so that they can find alternative livelihoods. Landowners also have the right to compensation for loss of their forest lands.
- Article 69 addresses the responsibility of the *adat* community in terms of forest protection. The community must take co-operate in protecting and guarding the forests from destruction. It can request help and support for forest rehabilitation from NGOs, the government or other parties.
- Article 70 promote cooperation between the *adat* community, the government and third parties in forest development. Local and central government may be assisted in this by a forum of parties interested in forest issues.

The forestry law explicitly states the criteria by which the government can recognize the legal existence of *adat* communities. These criteria include: the relative sustainability in the use of natural resources; the presence of strong social cohesion and traditional institutions; high reliance of communities on the exploitation of natural resources; and a tradition of conservation measures (Eghenter, 2006). It is a bottom line that the *adat* customary right is well recognized in the legal system in Indonesia.

2.4. Spatial Planning and The Adat Involvement

Spatial planning is essential to ensure the sustainability of ecological, economic and social systems in landscape management (Bryan, 2003). Spatial planning has been proved to have a significant contribution to the promotion of sustainable development. Planning Official Society (POS, 2005) defined spatial planning as an integrated strategy for the future of an area which is rooted in a clear vision, with commitment by all the relevant agencies to its delivery. Citing from the Office of Deputy Prime Minister (ODPM) of England and Planning Official Society, Clark (2005) describes spatial planning as an approach to ensure the most efficient use of land by balancing competing demands within the context of sustainable development. Spatial planning goes beyond traditional land use planning to bring together and integrate policies for the development and use of land with other policies and programs which influence the nature of places and how they function. This will include policies which can impact on land use, for example by influencing the demands on or needs for development, but which are not capable of being delivered solely or mainly through the granting of planning permission and may be delivered through other means. Spatial planning is also a process aimed at achieving sustainable development, including good design. It is based upon a development plan that enables local planning authorities and other organizations to co-ordinate their activities, achieve agreed objectives and manage changes affecting the area.

Spatial planning is wider than traditional land-use planning that only focuses on the regulation and control of land. Spatial planning has more inclusive approach aimed to ensure the best use of land by weighing-up competing demands. In spatial planning the physical aspects of location and land use is incorporated with economic, social and environmental matters as aspects that influence space as well as place (Clark, 2005; Deddy, 2006).

The Government of Indonesia has defined spatial planning, as a system of space planning, space utilization, and monitoring of space utilization process. The implementation of spatial planning is an activity includes management, implementation, and spatial-plan monitoring (Spatial Planning Law 26: 2007). This is the new definition of spatial planning after a long process that the Government of Indonesia had been through. In this first era, spatial planning process was executed merely by government with very limited recognition of local participation. Prior to 1992, spatial planning in Indonesia was under the jurisdiction of Ministry of Home Affair. The 'evolution' of government regulations in spatial planning is marked by the issuance of Spatial Planning Law 24 (1992). The law forced the central government to delegate planning authorization to the local government and encourage public participation. However, in fact the role of central government was still as important as before (Murdiono, 1998). Spatial Planning Law 24 (1992) accommodated the importance of: a) recognizing local autonomy, b) integrating urban and non-urban planning, c) including sector planning in spatial planning, d) integrating every level of planning, and e) recognizing environmental protection in spatial planning. Strong pressures from foreign and domestic investors to modernize planning regulation were the keys in acknowledging the problems.

The law became irrelevant after the national reform movement happened in 1998. There were public pressures that forced the central government transferring authority to local government. It resulted the

decree of decentralization laws in Indonesia, that are Regional Governance Law 22 (1999) and Fiscal Balancing between the Central Government and Regional Governments Law 25 (1999). Together, these laws provided the legal basis for regional autonomy in Indonesia, primarily to the district level (Barr, Resosudarmo, Dermawan, & Setiono, 2006).

As an adjustment to those decentralization laws, the Government of Indonesia declared a new law on spatial planning in 2007. According to Spatial Planning Law 26 (2007), new principles of spatial planning are efficient, effective, and appropriate use of natural resources and man-made resources in order to sustainably improve the quality of human resources; transparent, effective, and participative spatial planning to achieve secure, comfortable, productive and sustainable space for living; the protection function of space to prevent the negative impact on the environment; and the balance between prosperity and security.

Furthermore, there is a need to have better spatial planning regarding to present situations, such as: (1) national and international situation demanding the enforcement of the principles of integrity, sustainability, democracy, and justice in order to design better spatial planning; (2) the implementation of decentralization policy which gives greater authority to local governments in the implementation of spatial planning need to be regulated in order to maintain harmony and integration interregional, and did not result in inequality between regions; and (3) higher community awareness and understanding on spatial planning and its regulation, implementation, supervision and control should be consistent with new situation in society.

The implementation of spatial planning also aims to create a safe, comfortable, productive, sustainable space of national territory and based on Archipelagos Insight and National Dependency with harmony between the natural and artificial environment; integration in the use of resources natural and artificial resources considering human resources; and protection of the space function and prevention of negative impact on environmental caused by space utilization. The efforts to manage the space as mandated by the law shall be undertaken to ensure the quality of national territorial for the realization of common prosperity and social justice.

The new law has instructed that the National Spatial Plan shall be adjusted within one year and six months after the enactment. Meanwhile two years after the promulgation, all provincial spatial plans have to be reviewed and three years after for district and city level of spatial plans.

Related to the *citizen* right, spatial planning Law 26 (2007) and its derivate regulations have a special concern. It explains that every person have rights to get information of spatial planning; to take the benefit of the added value of space as a result of spatial planning; and to obtain appropriate reimbursement for damages arising from the implementation of activities in accordance with spatial planning. Later, it also elaborates that the *adat* community has a right to utilize forest area with some limitations as mentioned in the zoning regulations for protected forest areas and national parks areas.

2.5. The Adat Community in Forest Management

As the involvement of adat community in spatial planning is mainly related of their forest resources use, it can be understood that the role of the *adat* community in forest management is significant. Since 1982, forest related land-use planning of Indonesia has evolved through three distinct phases that reflect more decentralized decision making: techno-rationalism, regional development, and district-driven planning (Wollenberg et al., 2008). In 1982, a first phase was marked by initiation of the Ministry of Home Affairs to legally instruct the Ministry of Forestry (MOF) to create Consensus-Based Forest Land Use

Planning/Tata Guna Hutan Kesepakatan (TGHK). In 1984, the MOF produced TGHK maps, usually 1:500,000, that classified forest land functions as (1) protection forest (i.e., for watershed protection); (2) conservation forest in the form of national parks and other protected areas; (3) limited production forest, in which timber harvesting needs protective measures to avoid soil erosion; (4) production forest for timber harvesting; and (5) conversion forest for conversion to agriculture, plantation crops, settlements, or other uses. The criteria developed were based on the existing forest conditions, water and soil conservation and national and local social economic interest. There were several indicators: forest vegetation coverage, topography, and type of soil, climate, and community development (Fay & Michon, 2003).

The second phase was started in 1992 by enactment of spatial planning Law 24 (1992), and the new involvement of the National Development Planning Board (BAPPENAS). This phase initiated the integration of land allocation with inter sector development planning. The law decentralized spatial planning to the provincial, and later, district planning boards. Started in 1997, MOF produced the new integrated maps (*peta paduserasi*) that rationalized the TGHK maps with the spatial plans of the new provincial and district planning agencies (Wollenberg et al., 2008).

A third phase of land-use planning began in the reformation era. Widespread reforms occurred from 1999 to 2004 that decentralized authority to the district governments. With powerful new authority they have, the district governments tries to create or revise their policy to assert their autonomy power denying coordination with the higher plans level and as a result the classic problems of centralized land-use planning persisted. Conceptually, this phase created an opportunity for more locally relevant land-use planning that could better link district government spatial planning to the knowledge, experience, and aspirations of local people (Wollenberg et al., 2008).

This new paradigm in regulations shall bring opportunities to improve effectiveness the forest management in Indonesia. It is widely accepted that effectiveness of forest management depends on public and private responsibilities to respect to the local community including the *adat* community. There also must be well knowledge of social, economic and environmental condition that will contribute to a better decision on sustainable management and also be used to decide which areas that are currently controlled by the Ministry of Forestry would be deregulated or devolved to provide more options and better livelihood opportunities for local people. The political economy of forestry should be changed, it should be changed from centralized state timber management with main role of local community (Contreras-Hermosilla & Fay, 2006; Kusumanto & Sirait, 2001).

The involvement of people in forestry activities must be began with the assumption that if rural people were part of the problem, the part of the solution must be to meet with some of their needs for forest products and involving them in forest management activities. In addition, the growing environmental sustainability awareness and acceptance of public participation models in policy formulation have pushed the policy makers to develop participatory mechanisms to manage forest resources (Ananda, 2007; Fisher, Prabhu, & McDougall, 2007).

2.6. Effectiveness Evaluation in Forest Management

Effectiveness is often used as a criteria in policy analysis and evaluation. Effectiveness refers to the principle that an alternative should promote the achievement of a valued outcome action, and measured by their units of products or monetary values (Dunn, 2012). It is a technical rationality that a policy can be explained in a certain measurement instead of keeping it abstract. Effectiveness is apparently a useful

criteria to evaluate policy. It can be applied retrospectively (*ex-post*) to measure needs, values, and opportunities that have been realized through public policies.

Nonetheless, to measure the effectiveness of the adat community involvement in spatial planning is still challenged. Even though the customary rights of the *adat* community is recognized, there is no consistent understanding or well-defined legal process to involve the *adat* community in spatial planning and its outcomes (Moeliono & Dermawan, 2006). This evidence would lead to difficulties of measuring effectiveness. The lack of the *adat* community data would also become a difficulty to undertake *ex-post* evaluation (Safitri, Bosko, & Plant, 2002). However, we will investigate values as criteria to measure the effectiveness of the *adat* community involvement in spatial planning.

According to Dunn (2012), values may be defined in a comprehensive way, so that includes any wants, needs, interests, or preferences. Values are anything interest to those who make evaluations, and can be used as criteria in evaluations. Since spatial planning is a long term policy, sustainability aspects are strongly emphasized and being the main criteria as stated in spatial planning Law 26 (2007). A spatial planning policy can be said as an effective policy if it promotes sustainability. For the *adat* community involvement in spatial planning process case, sustainability will reflect on how the *adat* community manage their forest as forest dependent is their main characteristic. Spatial planning policy is being considered as effective, if it can keep the *adat* community preserves the sustainability values in their forest management (Folke et al., 2004).

Somehow, there is always a debate to value the sustainability of the forest environment. So far, the method to value the sustainability of the forest environment can only measure the use of forest (i.e. timber and non-timber products, carbon sequestration and storage, etc.) but it is still cannot value the wider ecological value such as the resilience of the forest. The economic justification of efficiency (in the sense of giving rise to higher overall social welfare) neglects the distributional of equity of the society (Pearce, Atkinson, & Mourato, 2006).

Even so, we will try to develop an evaluation framework of the effectiveness of the *adat* community involved-spatial planning in sustainable forest management. As long as there are better understanding of the interactions between the *adat* community, the nature of spatial planning and the adaptive forest management (Folke et al., 2004).

2.7. Conclusion

The *adat* is an Indonesian term to refer a hereditary custom that become common practice to comply. The *adat* community is a group of indigenous people who has ancestral origins living in certain geographic areas and bonded by a customary law. The *adat* community has special rights that recognized by the law as *hak ulayat*, an Indonesian term for customary rights. After the national reforms movement, there is a new spatial planning law that gives opportunities for the *adat* community to involve in spatial planning process. The *adat* community has a recognized right of space particularly in forest areas, even though this right has limited conditions in protected forest areas and national parks. These opportunities bring hopes to improve the forest management to be more effective. To measure the effectiveness evaluation of policy in forest management, criteria that can be used are sustainability values.

3. RESEARCH STRATEGY

3.1. Introduction

This chapter contains the research strategy that have been conducted in this research. In the opening chapter, an overview was provided about the background of this research, and it delineated the objectives of this research and research question that this research efforts to address. Then it continued to the second chapter that is merely about the literature review about the the *adat* community involvement in spatial planning that aimed to give a general theoretical basis. From these two chapter comes the importance to investigate empirically how the current spatial planning involves the *adat* community, the *adat* community awareness of customary rights in spatial planning and how their involvement affects the effectiveness of the forest management in term of sustainability values.

This chapter starts with the discussion about the research type that have been adopted for this research. The discussion continues to the challenges of access when the fieldwork for this research was carried out. The next section is an explanation about the data that are used by this research, then it continues to the data analysis techniques. This chapter will be closed by the description about the limitation of the research strategy.

3.2. Research Type

Every research has its own form that guides its data collection and analysis. As seen in the first chapter, this research tries to answer several questions on how the *adat* community involves in the current spatial planning process and how this involvement in spatial planning process affects the effectiveness of forest management. In the beginning this research was designed to use a quantitative approach by propose an assumption with certain indicators to test it. However this research is aware of possibilities that the *adat* people behave differently from the assumption that can only be described by using a qualitative approach. Also, this research uses various data from interviews, archives, field observation, to spatial data from satellite images. Hence this research has chosen the mixed methods approach to find answers of the research question. Mixed methods approach define as a method that combine a qualitative and quantitative approach. In this way, mixed methods approach is a pragmatic approach to research methodology and their fundamental reasons. The used of mixed methods approach has been significantly increasing because of its suitability in recognizing values from both qualitative and quantitative paradigms in order to maximize the strength and to minimize the weakness of each other (Bloch et al., 2014).

For this research a qualitative approach is conducted by using the grounded theory method. The grounded theory method is a qualitative method that concerns about developing theory from data (Mutsheewa, 2010). According to the grounded method, this research investigates the *adat* community involvement by creating codes and categories from interviews and finally develops a theory from data. While the quantitative approach is conducted by using satellite images to detect the change of forest land cover. It aims to quantify how much the forest land are decreasing or increasing in numbers.

However there also a critic to the mixed methods approach particularly with compatibility issues. Quantitative approach is linked to positivistic views that social phenomena can be investigated objectively in same way as physical phenomena, by making context-free simplification that can be verified. Qualitative approach are usually created by interpretive view that social phenomena must be observed from the point of view of the subject (Mutsheewa, 2010). Nonetheless this research has a confidence that the mixed methods approach are suitable in investigating the *adat* community involvement in spatial

planning process, by being able to provide evidences from interviews and textual document perspectives and satellite image perspectives.

3.3. Conducting Research

The conduct of this research is very different from an experimental research. In this research, the researcher cannot have the skill to control the situation where the empirical data are collected. Instead of well-ordered experiment, a case study researcher has to face unpredicted disordered organizational and technical situations that need to be carefully interpreted (Law, 2004). It is also common when the informants cannot comply the researcher demands. The researchers also have chances to face limitations and burdens from their informants (Silverman, 1993; Wolcott, 1990). Therefore, it is important to accept the collected data in largely unpredictable conditions. This section explains the unexpected events and emerging challenges during the data collection process, especially the access to the data sources and locations.

3.3.1. Challenges in Accessing Data

The main objective of this research is to focus mainly on how spatial planning process works and involves the *adat* community in Paser, East Kalimantan. It aims to observe how the local spatial planning institution and the *adat* community working together to formulate spatial planning in the forest areas. By the end of the research, it is expected this collaboration can produce an effective spatial planning policy that promotes sustainable values in the forest management. This has been done by a five weeks long fieldwork in Paser Municipality, East Kalimantan. During this field visit, institutional survey and interviews the *adat* elders have been conducted.

In the first week, I went to Ministry of Agriculture in Jakarta to get high resolution imagery data. I met several senior officials in the Directorate of Land Management and Development. After a brief explanation about this research, I got advices from them related to how to get to Paser. They strongly suggested to contact a senior official from the office of Agriculture and Estate Farming Service. It is necessary because Paser is quite far. It takes 8 hours by car and 1 hour by ferry from the nearest airport in Balikpapan. So, it is better to make sure the access to the high rank officials as informants by using the Ministry of Agriculture Office connection, otherwise it would be difficult to interview these high rank officials. Also, Agriculture and Estate Farming Service will help to provide logistics and transportation to get the *adat* village which are in very remote areas in the forest.

Even though this arrangement made the survey easier, I had to face the fact that this arrangement raised burdens in term of opinion objectivity. Using the central government connection like the Ministry of Agriculture Office connection means I already put 'pressures' to the local officials whom being informants. It is merely because the Indonesian bureaucratic still has hierarchical aspect in central-local government relationship even though it is not necessary anymore by the law. Another challenge was raised when I visited the *adat* community. The fact that I am the central government employee from Jakarta made me afraid that I would make some of the *adat* people looked uncomfortable to express their opinion.

To deal with those unfavourable situations, I tried some strategies. When I interviewed the local officials, I avoid to make talks about professional objects especially legal aspects of spatial planning. I also hid the fact that I am the one who used to make supervision to the local spatial planning document for the central government approval. However, I was surprised when I visited the *adat* village. The *adat* people

are very welcomed to me. Most of them are very open minded to the outsider. It makes the interview flowing easier. The documentation of interview process can be seen in Figure 2.



Figure 2 Interview with the Elder of Rantau Layung

3.3.2. Informants and Locations

Despite of those challenging situation as described above, I was mostly able to interview many key stakeholder both from local government offices and the *adat* elders. As mentioned in the first chapter of this thesis, the investigation of the role of the *adat* community in Paser Municipality, are distributed among two different groups. From the government side, there are five local government institution who play major roles in developing local spatial planning in Paser Municipality. These five local government institutions are BAPPEDA, DISHUTAMBEN, DISTANBUN, DBMPTR and SETDA. Since this research is also a part of doctoral program research in the faculty, the location of the *adat* village is given. Based on this fact, I decided to do the fieldwork in four villages, which are Rantau Buta, Rantau Layung, Muluy and Swan Lutung. Details of the interviewees are elaborated in Appendix 1.

Generally, with determination, strategic thinking and helps from Ministry of Agriculture and Agriculture and Estate Farming Service official, I was able to interview high rank officials from each local spatial planning institution and conduct interviews to explore information from the *adat* elder of each village. During October 2013, I conducted a desktop survey, an institutional survey in Jakarta and interviews. For the desktop survey, I collected main regulations in spatial planning. I got the high resolution imagery from my institutional survey in Ministry of Agriculture, and I conducted 10 interviews with high rank local officials and the *adat* elder. The empirical data here are mainly concerned to the current spatial planning and how it involves the *adat* community, the awareness of the *adat* community to their customary rights in spatial planning, and the current situation of the forest in the *adat* village based on the satellite imagery.

3.4. Research Data Sources

This section explains the precise detail how the data collection took place with the challenges this involved. The two element that important in this research are practices and chronological event (Rajao, 2011). With this assumption, this research adopted three sources of data that inter-complementary, which are documental analysis, interview and image analysis. This section describes how these methods help explain the practice of the *adat* involvement in spatial planning process, and how it affects the effectiveness of forest management.

3.4.1. Textual Resources

Along with academic literatures on the *adat* community and spatial planning, law documents, government publication, newsletters, and current practice reports give important insights about the standard procedure and practices of current spatial planning involves the *adat* community in Paser, East Kalimantan. The main textual sources and related time frames used in this research are available in Indonesian and acquired by a search engine on the internet.

Textual sources have obvious roles in understanding the current practice of spatial planning in Paser Municipality. Compare to the oral sources, which may vary as people change their thoughts, concerns and views, documents can be simply kept in its original form for later consultation. This is the reason why most of past information that come to us are delivered from textual resources (Bentley, 1999). At this point also, textual resources provide extensive information about the chronological development of spatial planning in Paser Municipality. Even though most of this textual resources are not created specifically for this research, however it provides the basis of the study of the *adat* community involvement in spatial planning, in Paser.

In spite of the importance of textual sources for this research, they have substantial limitations. Since most of textual sources used in this research are legal documents and its derivations, it only contains legal formal views and does not really express what actual voices of citizen about spatial planning. Only powerful groups who have direct access to the legislation process can shape it for their own advantage. In this way, textual sources should be understood as sources with incompleteness and politically bias (Hammond & Sikka, 1996; Thompson, 2000). Also, textual sources only inscribe a selective of what constitutes complex social process in spatial planning, with an exception for some excellent ethnographic works. There is also a chance for misleading to understand practices because of simplification and idealization that occurs in the process of creating governmental document, records and news (Garfinkel, 1967; Hammersley & Atkinson, 1995). Therefore, the textual sources are only able to provide an indication of practices in spatial planning. Here, the data about spatial planning practices raised from interviews, and satellite images. It will be explained in the next sections.

3.4.2. Interviewing

Interviewing is well known as one of important methods to investigate practices in the society. Although the application of interview is frequently underestimated, a good skill and sensibility in conducting a good interview are required. Particularly, interviewing is a focused conversation. It involves an art to construct talks that makes the interviewee feels comfortable to express his or her opinion. In this way, I avoid to make pressures by using a strict structure that create a distance with the interviewee even though I had considered topics to be explored beforehand (Nicolini, 2009; Rubin & Rubin, 2005). The list of questions is available in Appendix 2A and 2B.

The length of interview varied considerably because of the type range of the informants and, with my sensible consideration, the possibility on how much they would gave information. For instance, it took almost 2 hours for interviewing a senior official from DISHUTAMBEN because he provided very thick information, while it took only 30 minutes for interviewing the official from DBMPTR. I used the voice recorder for all interviews with the permission from the interviewee. I transcribed and translated to English all the interview records. Later on the data analysis, all the interview records were listened and transcribed.

Even with challenges that were described before, I was able to conduct ten interviews, in which covering most of the key actors in the involvement of the *adat* community in spatial planning. Specifically, I was successfully interviewing an official in BAPPEDA who shared the information about current spatial planning practices in Paser Municipality. I also got a very thick information about the *adat* community-forest relation from the interview with a DISHUTAMBEN official and the chief of Paser Adat Council (Lembaga Adat Paser/LAP). Finally, at the *adat* villages, I interviewed the elder from each village. From them, I got information about the daily practice of *adat* community in using forest resources. I did walking interviews with the *adat* elders by visiting their homes and following them to whenever places they wanted to go. Although, for spatial planning topics, most of them know little.

Interviews with the key actors in spatial planning and the *adat* community above are very useful to investigate the current practice of spatial planning and how it involves the *adat* community. Even though, many authors criticized the over reliance on the interview method to investigate organizational relation (Rajao, 2011), the interview itself is very helpful for this research. At least, there are three positive contributions from the interview. First, it provide the detail of what the informants do in spatial planning process from their own perspective (Nicolini, 2009). Every interviewee provides practice examples of what are they doing. This overview is very useful to describe how the current spatial planning works, who stakeholder are, and what contributions they make in spatial planning process. Secondly, the use of interview allowed informants to express the rationale behind their practice in spatial planning process. This clarification is useful to describe the actual practices that rarely described by textual resources (Hammersley & Atkinson, 1995). Third, by interviewing their opinion about the role of the *adat* community in spatial planning, it was possible to know in what extent the *adat* community plays a significant role in spatial planning process.

Overall, the interview becomes an important data source for this research. However it is important to recognize the limitation of this method related to this research. First, there was a tendency, especially from the officials, to express the nature of opinion in an implicit way. It makes too difficult to make a correct interpretation. Second, some of the *adat* elder do not really understand Indonesian language, it opened a possibility that they cannot express their opinion in correct words.

3.4.3. Observing

Observation methods such as direct or participant observation are considered to be the prosperous sources of primary data. Using this method, the researcher can do 'fly on the wall' to observe the natural practice in the real social settings (Easterby-Smith, Thorpe, & Lowe, 2002). This method enables the researcher to produce a rich description of a certain social world after some times of the data collection in a specific location (Geertz, 1973). In this sense, the observational method have been used in the case study research which are focused to the social practice in the *adat* community. However, there are many limitations to do the observation in the *adat* villages during this research. It was not possible to do a full observation since this research must get the data from 4 villages that far from each other in distance. So, the time is the problem in this case. The other problem is the *adat* community population are small and they lives in the wide area. The situation made difficulties to observe how the *adat* people interact with each other. Since, they leaves their house for their land in the forest before the sunrise and go home when the dusk is coming. To deal with these problem, I adopted the strategy to only focus on my interviewee and try to do observe what they do in the forest. As result, I experienced walking with them around the nearest forest and observed how they cleared the land after the burning process. I also saw what kind of plant varieties they grow and how they main and how they are caring for the plants.



Figure 3 Rubber plants in Rantau Layung

3.4.4. Satellite Images

Nowadays, satellite images is widely recognized as a geo-information source to observe the dynamic process on the earth surface. By adopting this methods, the researcher can attempt to assume that geo-information is a major method to observe the spatial phenomenon on the earth surface. As known, spatial planning policies are a form of human intervention that has significant impacts on changing earth surface. In spatial planning, there are aims of economic development, equity, and environmental sustainability that require a strong spatial vision. This aims should be supported by many kind of spatial information that might be include satellite images (Dopheide, Meer, Sluizas, Veen, & Voinov, 2012). For these reason, satellite images can be employed to investigate the practice of spatial planning and the *adat* community in the forest space, time after time. Satellite images allow this research to monitor the change of the forest land by incorporating information on the spatial and temporal changes that occurs in the forest and integrating with other information that collected from documents and interviews (McCloy, 2006).

During the fieldwork, I collected high resolution images from Ministry of Agriculture that were taken in 2012 and geo-referenced and later, this image will be used as a reference. In addition to this, I also collected image from an open sources from glovis.usgs.gov – an internet portal that provide extensive satellite images in time series. I downloaded images that taken before and after year 2007, a year when the new spatial planning law was legalized. To avoid this extensive information, I made a selection to choose best images. Best images means images with less cloud or haze, and taken by impeccable sensors in a similar season. Finally, I chose images from selected images that taken on March 2001 and October 2013. In the following are images that have been used in this research.

In spite of the fact that satellite images can provide information in a convenience way, satellite images have a limitation. In particular, satellite images show everything that caught by sensors. The researcher had to deal with relevant and irrelevant information as well. This situation often demands times in order to provide a good data. Details of steps and difficulties in using satellite images will be explained in data analysis section.

3.5. Data Analysis

There are two types of data used in this research: qualitative data that mainly derives from documents and interview excerpts, and satellite image data. This section will describe how the data analysis works and its involved challenge. The description of the used techniques also will be described.

3.5.1. Identifying Historic Events and Practice from Texts

The vast amount of the available documents related with spatial planning policy in Indonesia make me aware that I should be careful to pick the right documents. I refer to Aurbach and Silverstein (2003) to extract the data from documents. These authors know that the process of the qualitative data coding and analysis as a series of separate steps. In the beginning, the 'raw text' is scanned through in order to extract what is essential in the 'raw text'. It results the relevant texts that might be significant for being analysed. Then, the relevant texts are being analysed to find the 'repeating idea' which are then collected into 'themes'. These themes then compared with the relevant literature in order to form 'theoretical constructs' for 'theoretical narratives'.

A similar procedure has been applied during the process to describe the current spatial planning in Indonesia. However, instead of only describing spatial planning process, I also be able to construct the history event of the major laws that have a significant relation to spatial planning policy. In this case, the procedure of text analysis as proposed by Aurbach and Silverstein (2003) could not be conducted in straight forward steps. It became an iterative ways in identifying the 'repeating idea'. I had to re-read the documents over and over again until I found the 'stable pattern' between those repeating ideas. The upcoming sub-section will be describing the process of transcribing and interpreting data.

3.5.2. Transcribing and Interpreting

Transcribing was used to transform the audio recording from the interview to the text form. The data was recorded in the format that can be easily to be played on any audio software. I used the Windows Media Player to listen to the interview recordings, and then typed what I hear in the Microsoft Word. It was a sedentary and time consuming process. The challenge during the transcribing process is the oral language that had been used by the interviewee is in the Paser dialect. It was very difficult since there were too many 'accessories words' that only have meaning if it is interpreted collectively in whole passages. These accessories words do not have meanings if they are pronounced solely. Another challenge of this process when I translate to English. Since Indonesian has a completely different form between the oral language and written language, it needs some times for me to translate it into English. I really paid attention in order to be careful from reducing the meaning. After the process of transcribing and interpreting data has finished, the next task is to code and categorize data as described below.

3.5.3. From Coding and Categorizing to Theory

In common term, 'coding' refers to data reduction either by a system of symbols or by numbers. In a qualitative research this sort of data reduction has to be done to store information describing the attributes of an interviewee, for example (gender, age, ethnicity, etc.). The purpose of the coding is to reflect on what the coded segments tell about the category and its meaning in this research. Coding also generates questions about how the category relates to other ideas from the data, and construct theories about those relations. It allows to gather all material about a case, from different sources, so the researcher can apply the information about the person or site to everything there, and compare cases on their attitude, experiences, etc. Furthermore, it can make finer categories from finding different

dimensions in the data gathered by the first coding. Coding is one way of analysing qualitative data, but not the way to analyse qualitative data (Richards, 2005; Saldana, 2013).

Coding is a heuristic or a discovering process to refer an exploratory problem solving technique without specific formulas or algorithms to follow. It means to link the data to the idea and the idea to the data pertaining to that idea. Since there is no rule to follow in doing coding, it is highly related of the subjectivity of the researcher. The researcher should determine whether coding is appropriate for a particular research project by themselves rather than follows some presumptive theorist or hard core methodologist. The first step of coding is to codify that defines as to arrange things in a systematic order or to make something part of a system or classification. After this step, the coded data is filtered and classified by some key words that portray the pattern amongst the coded data. This process is called as categorizing which aimed to put the coded data into some categories. Then, concepts can be drawn from categories. Concepts are more general, higher-level, and more abstract constructs than categories. Concepts lead to theory constructions (Saldana, 2013).

According to Glaser and Strauss (1967), theory is defined as the conceptualization of description and explanation of findings in which provide clear enough concepts and hypotheses. Meaning, theory must be clear enough to be operationalized, verified, and tested by quantitative studies in the future. Theory must be understandable from any point of views of qualitative researchers. The procedure from coding to theorizing can be seen in Figure 4 below.

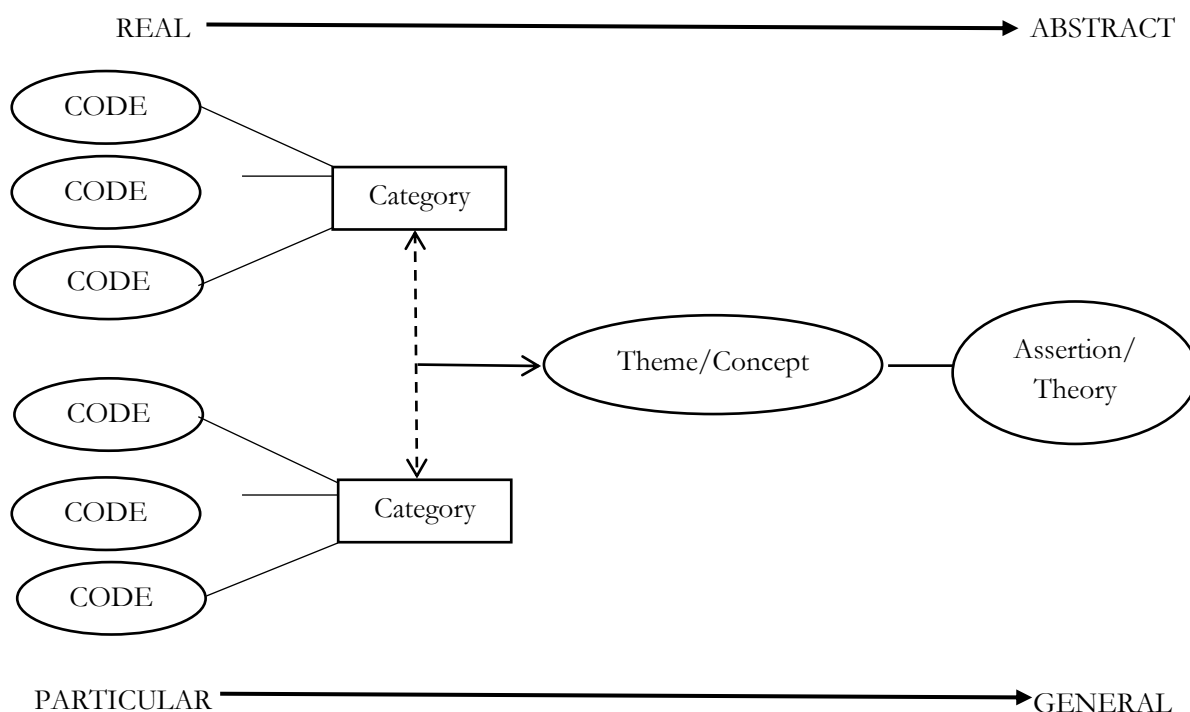


Figure 4 A streamlined codes-to-theories model for qualitative inquiry from Saldana (2013)

In this research, I got qualitative data from the interview that needed to be coded. I used the ATLAS.ti software to make the coding task more convenience. The software is quite helpful for this research case especially for storing codes and quotations, categorizing codes into families/categories, and presenting the comprehensive report of coding with the corresponding quotation. However, using the software to do coding does not mean the coding works is fully done by the software. The software still need the intuition of the user to name the code and category based on the available data. So basically the coding works by software is similar with the manual coding, but with the software it is easier to add or revise or iterate codes during the coding process. Figure 5 below is the sample of the coding and categorizing process in the ATLAS.ti software environment.

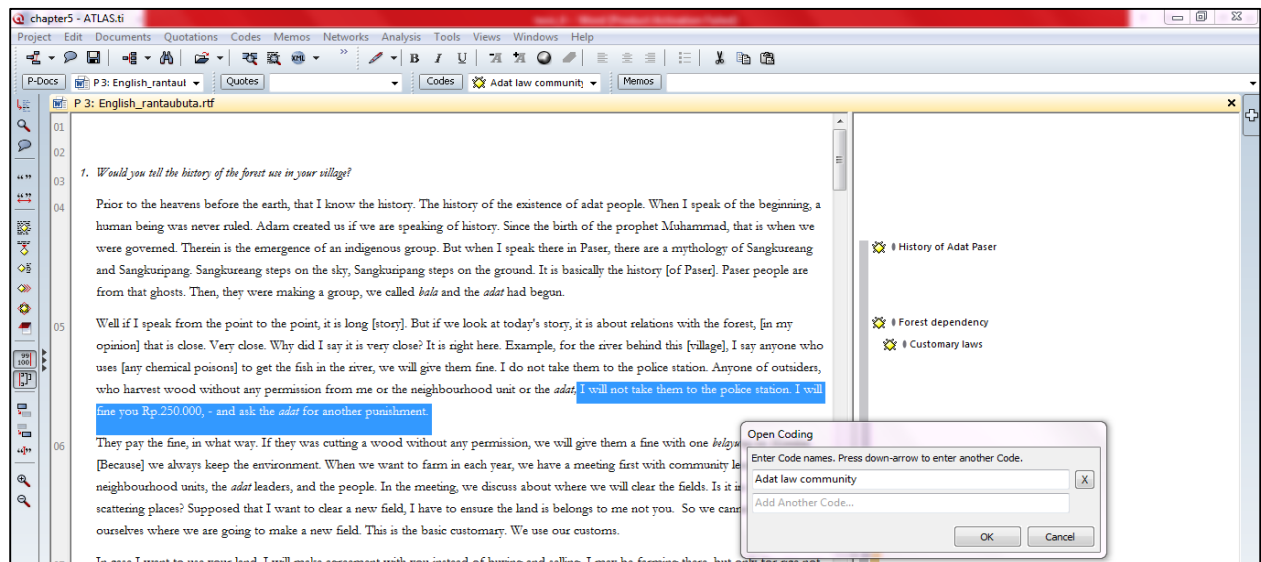


Figure 5 Coding in ATLAS.ti

Here, I will not explain how the interview data were being coded because I did not use a particular coding method of qualitative data methodology such as in vivo coding, value coding or descriptive coding as explained by Saldana (2013) and Richards (2005). I was keeping the coding method flexible with the data context and pattern. List of codes is presented in Appendix 3A and 3B.

However, I think it is important to describe how I built the categories. It is because categories represent the summary of codes and go beyond the reality of the data and evolution toward the thematic, conceptual and theoretical (Saldana, 2013). Meaning, categories are connecting the raw data with the conceptual design of the research. First, I divided the available data into two different groups based on the source. The first group is the data come from the local government officials, while the second group is the data come from the *adat* elders. After the coding process of the data, I started to read and analysis of what each code implies to. From this process, I was able to group codes into categories based on their inherent patterns. According to Saldana (2013), the patterns can be observed based on the similarity, the difference, the frequency, the sequence, the correspondence or the causation among codes. In fact, this research spent 2 month to do coding and categorizing.

Because of the different interview source, the categories that were built here also divided into two different group. The first category group is addressed to be the input for Chapter 4 while the second category group is proposed to be input for Chapter 5, as mentioned in the Table 3 below.

Table 3 Group of Categories

	Category	Description
Group 1 <i>Source: Local Government Official Interview Excerpts</i>	Procedure	The group of codes that refers to the current practice of spatial planning procedure in Paser Municipality. It consists codes that describe the process in a chronological way.
	Stakeholder	The group of codes that refers to the stakeholder in the current spatial planning process. It includes codes that have relation with stakeholder role, view, position, and authority.
	Views	The groups of codes that refers to the stakeholder views on the involvement of the <i>adat</i> community in spatial planning.
	Awareness	The group of codes that refers to the stakeholder awareness of the <i>adat</i> customary right within space.
	Participation	The groups of codes that refers to the participation of the <i>adat</i> community in spatial planning.
Group 2 <i>Source: The Elders of the Adat Interview Excerpt</i>	Relation	The groups of codes that refers to beliefs, daily practices and behaviours of the <i>adat</i> community in relation with forest.
	Welfare	The groups of codes that refers to the welfare condition of the <i>adat</i> community
	Understandings	The group of codes that refers to the understanding of the <i>adat</i> community about the customary right in spatial planning
	Involvement	The group of codes that refers to the <i>adat</i> community views about their involvement in spatial planning

Despite the importance of the coding process and its contribution to this research, coding have significant limitations. In relation with the subjectivity, it has already been indicated by many scholars that coding tend to be subjective and reductive (Richards, 2005; Saldana, 2013). In particular, because coding is what the researcher perceive about the data, then the researcher already set the data in a particular point of view. Here, the researcher already made reduction of the data according to his/her perception. Because of the subjectivity, there is also possibility of ‘different person different codes’. The categorizing process is described by Appendix 4.

The next sub-section will be describing how to write up the coded and categorized data into paragraphs that become the writing style of research findings.

3.5.4. Writing Up

When there are many quotations with codes and categories developed, then the next difficult work is how to write it in a meaningful sequence of stories without leaving any quotation in vain. To deal with this issue, I refer to Saldana (2013) who give tips about how to write up the huge amounts of coded quotations by selecting the ‘top 10 list’ of quotation. At this point, the top 10 list of quotations means a list of strong quotations which can be directly quoted into the report rather than a literal meaning of a list of 10 quotations. Usually, the strong quotation is unique and spoken by one interviewee. I merely relied on intuitions to decide whether a quotation is strong or not. The example of this type of writing can be seen in Table 4 below.

Table 4 Writing up the strong quotation

THE ORIGINAL QUOTATION	Now the draft of the new spatial plan has been in the legislature, but it is so bogged down because of the ministerial decree in forestry. Meanwhile, we are pending [all the process and what] we will agree. Yesterday we gave some of BKPRD insights [about this issue]. It is still undecided we can go forward or we delay [the process]
IN THE PARAGRAPH	<p>As results, the municipal government now concludes that there is legal emptiness situation in spatial planning and take this situation as an experience, then desperately said:</p> <p>Now the draft of the new spatial plan has been in the legislature, but it is so bogged down because of the ministerial decree in forestry. Meanwhile, we are pending [all the process and what] we will agree. Yesterday we gave some of BKPRD insights [about this issue]. It is still undecided we can go forward or we delay [the process]</p>

After the strong quotations had been selected, the remains of quotations usually are not unique and difficult to be quoted directly in the paragraph. In many cases, the quotations are a shared opinions among the interviewee in many different patterns. Sometimes it can be either supporting or refusing or complementing to each other. Due to the various implication of the quotation, I used to make an interpretative summary based on the logic of thinking to deal with these quotations in order to make them coherent in a paragraph. It means the subjectivity plays roles again in this case. The example of this writing is given by Table 5.

Table 5 Writing up the less strong quotations

ORIGINAL QUOTATIONS	<p>But for [spatial planning] preparation in general is by BAPPEDA. The Local Secretary is leading to submission to the legislature. I mean [for BAPEDA, we are handling] A to Z issue, It is [like] the level of the kitchen, [we are cooking] and the secretary serves.</p> <p>... Nature reserves are within our region but our authority can be said to be zero for this case. For conservation areas [the authority] is in BKSDA, a conservation centre as the extension arm of the department.</p> <p>The division of duties are BAPPEDA is responsible for macro planning, here we are responsible for micro planning.</p> <p>SKPDs have duties for preparing spatial planning, such as BAPPEDA, DBMPTR, and others. All the technical advice from SKPDs are brought and studied here.</p>
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IN PARAGRAPH	THE	Since the BKPRD is the coordinating board, it is needed the power sharing amongst its member to make the coordination more effectively. For example, the Local Secretary is leading to submissions to the legislature, while BAPPEDA is handling technical issues with the other member. BAPPEDA also shares the authority when is doing spatial planning process with DBMPTR. BAPPEDA is responsible to handle the macro or regional planning for while DBMPTR is responsible for the micro or city planning. Only DISHUTAMBEN that has to share its authority with external institutions. It has to share the conservation area protection within the municipal region with BKSDA, a central government institution. Their authority can be said as zero authority in this case.
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The writing process itself is dynamic. It is the process of ordering and reordering the quotations in a sequence paragraph in order to make a logic story of this research findings. When the logic story has developed, all the quotations have similar contribution to the report texts regardless their origin is either from the strong quotation or the less strong quotation. The next section deals with the image data processing that is used to provide visual evidence of the *adat* community involvement in spatial planning process.

3.6. Image Data Processing

As a part of analysis method, the image data processing aims to provide evidences of what happens in the earth surface during the pre and post condition of spatial planning law implementation by using remote sensing techniques. Steps of image data processing will be elaborated as follow.

3.6.1. Raw data

Raw data have been used in this research are Landsat Enhanced Thematic Mapper Plus (Landsat ETM+) of 2001, Landsat Enhanced Thematic Mapper Plus (Landsat ETM+) with Terrain Corrected (L1T) of 2013, and QuickBird Image. Landsat ETM+ of 2001 and Landsat ETM+L1T of 2013 were acquired from glovis.usgs.gov, while QuickBird Image was collected from Ministry of Agriculture Republic of Indonesia through an institutional survey. Table 6 is explaining the technical specification of satellite images.

Table 6 Satellite Images Specification

Image ID	Date	Latitude	Longitude	Cloud Coverage	Sensor	Resolution	Band
LE71170612001081SGS00	22 March 2001	-1.4	115.9	27%	ETM+	30 meters	4
LE71170612013290EDC00	17 October 2013	-1.4	115.9	17%	ETM+ L1T	30 meters	4
QuickBird	16 March 2012	-1.4	115.9	-	-	10 meters	5

Considerations were made during selecting images process because glovis.usgs.gov provides many images of the study area within the period 1989-2013. Considerations include the image quality and the image time acquisition. The image quality consideration is mainly based on the cloud coverage percentage and

the sensor quality. The parameter of the cloud coverage was set below 30% on glovis.usgs.gov search dialogue webpage. This research was getting a difficulty to find images with cloud coverage below 10% because the study area is always covered by clouds and hazes, so this research increased the percentage of cloud coverage to 30%.

Meanwhile, the sensor quality consideration refers to a visual observation of the downloadable image to judge the absence of drop lines on the satellite image. This research was carefully doing a visual checking on images because most of images that acquired after 2007 have periodic line dropouts due to sensor imperfections.

For the acquisition time, this research aimed to select two satellite images. One image is before 2007 image and another one is after 2007 image. This aim was based on the purpose of this research to detect the change of land cover before and after the implementation of spatial planning Law 26 (2007). All images used in this research are presented by Figure 6, Figure 7 and Figure 8.

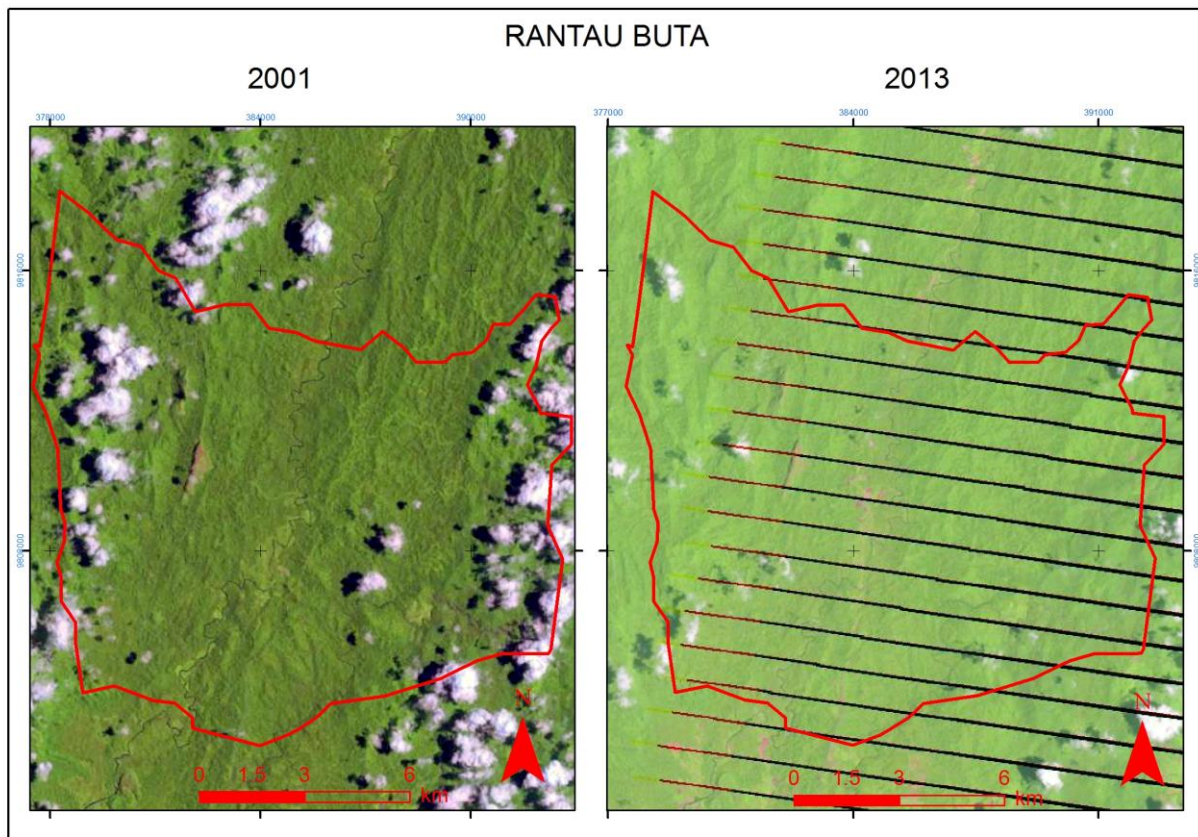


Figure 6 Images of Rantau Buta

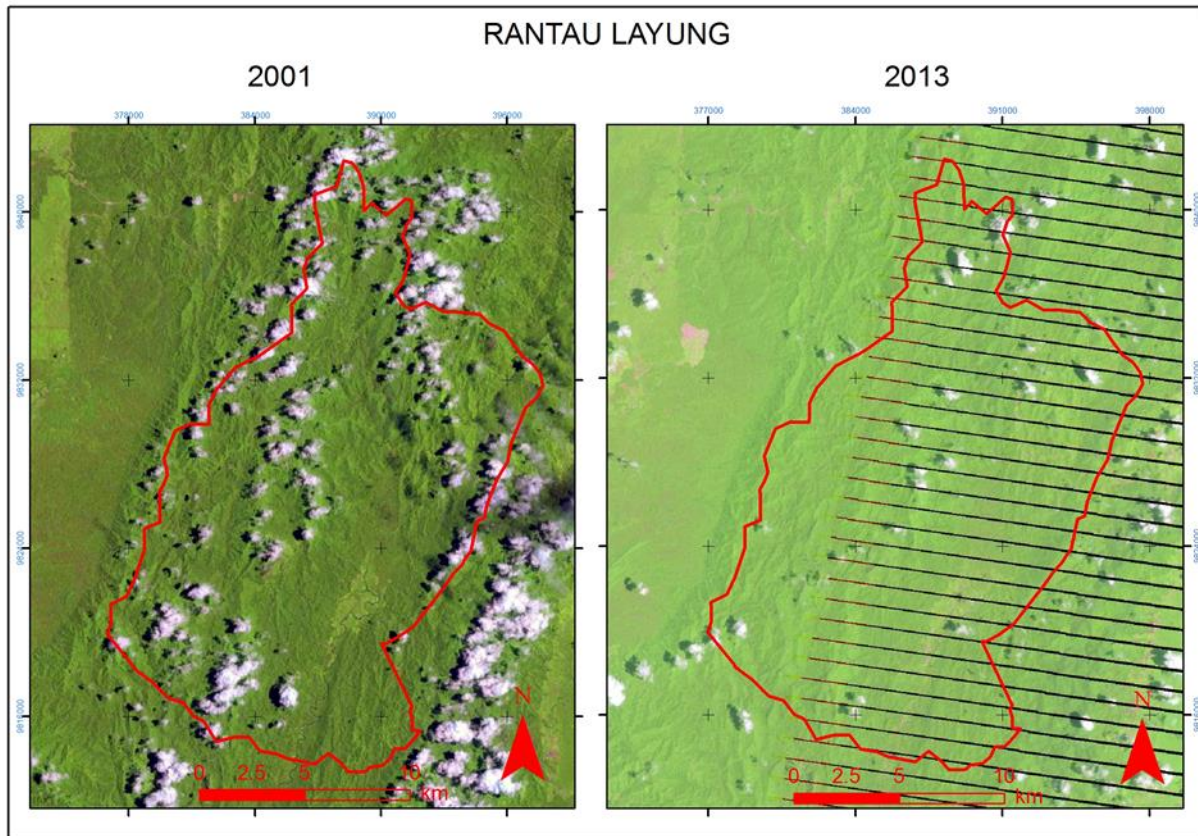


Figure 7 Images of Rantau Layung

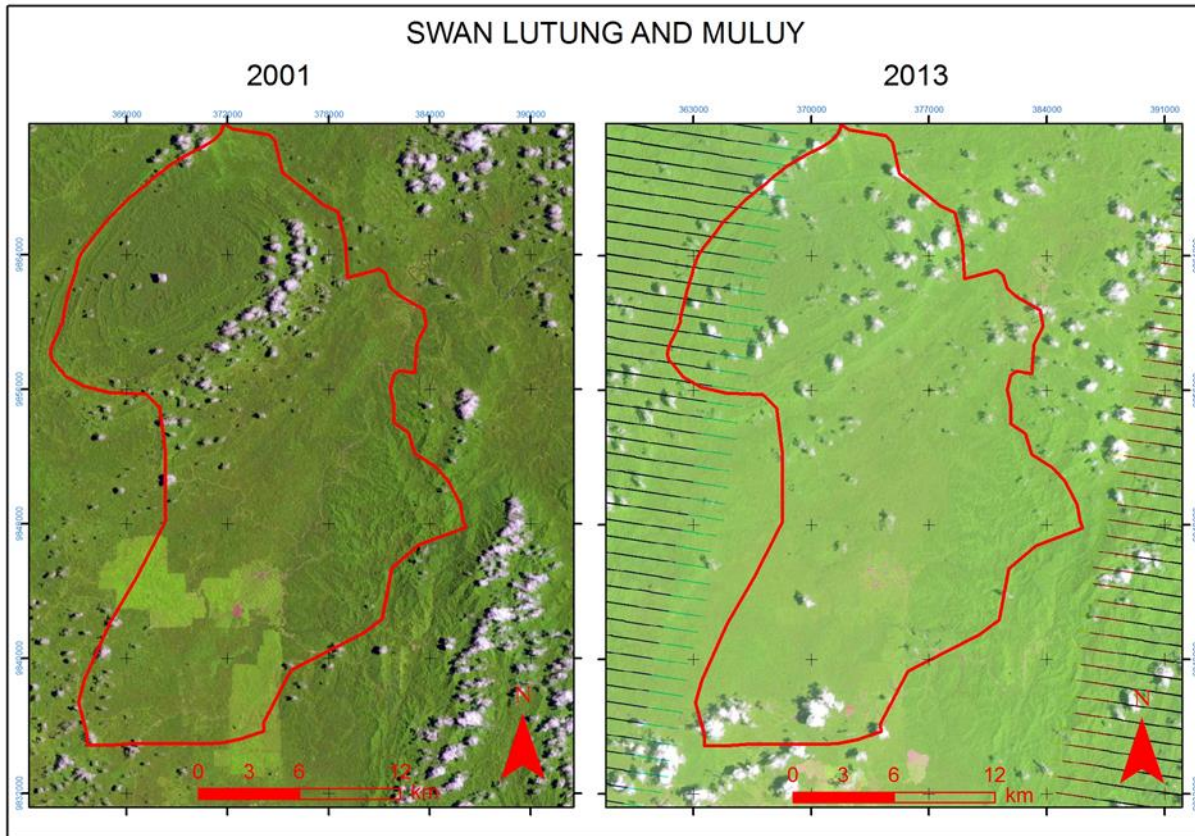


Figure 8 Images of Swan Lutung and Muluy

3.6.2. Pre-processing

This research was conducting two image pre-processing which are radiometric correction and geo-referencing. Radiometric correction was done to the Landsat ETM+L1T of 2013 that contains periodic line dropouts due to sensor imperfections. Periodic line dropouts is occurred if detectors of the sensor in question either gives wrong data or stop functioning. For example, Landsat-7 ETM has 16 detectors for each channel, a loss of one of detectors would result a black line on the image every 16 scan lines. Here the radiometric correction will make correction to those black lines by adding the average DN (*digital number*) of corresponding pixels from preceding and succeeding scan lines (Bakx, Gorte, et al., 2012). The process itself can be called as *destriping*. In this research, the destriping process was conducted automatically in ERDAS Imagine 2013 to correct visible errors of the drop lines.

Geo-referencing was needed because both of Landsat Image did not have spatial references. During the geo-referencing process, the QuickBird Image was used as a reference. Both of Landsat Image were projected with UTM zone 50 with Spheroid/Datum WGS 84.

3.6.3. Image Classification

In the first idea, this research was planned to do a supervised image classification. However this research had found technical difficulties to conduct it. The main technical difficulty is invalid sample points that had been collected during the fieldwork. After the fieldwork, this research was successful to collect 91 sample points by using a Global Positioning System receiver. The collected sample points were invalid

because when sample points were plotted to the image, sample points did not correspond accurately to the expected positions. In addition, there are many clouds and hazes covered areas that make it difficult to do a supervised classification. The image cannot provide clear spectral characteristics of area of interest that are necessary for the supervised image classification. These technical difficulties will lower the accuracy test of the supervised image classification result (Congalton & K.Green, 2009). Hence this research decided to change the image classification method to unsupervised image classification.

Unsupervised image classification is basically a clustering algorithms to partition the feature space into a number of clusters. Feature space is a mathematical space explaining the mixtures of observations (DN-values in the different bands) of multispectral or multi band image. The most common approach is that the user defines the number of cluster in a data set, then the software will compute the centre of cluster points based on the defined cluster number (Bakx, Janssen, Schetselaar, Tempfli, & Tolpekin, 2012). After several attempts in ERDAS Imagine 2013, finally the defined cluster number was 8 and applied to Landsat ETM+ of 2001 and Landsat ETM+L1T of 2013.

After both images were clustered into 8 classes, the process was followed by reclassification based on a visual interpretation. This is a necessary step because the 8 classes that had been defined were only represent the group of spectral values of the pixel and did not correspondence with the actual land cover. The reclassification was done by comparing visually classified images with original images. Because the main purpose of the image processing is to detect the forest land cover, the reclassified class only contains 3 classes which are forest, non- forest and unclassified. Table 7 describes the reclassification.

Table 7 Reclassification

Landsat ETM+ of 2001			Landsat ETM+L1T of 2003		
Class	Visual Interpretation	Reclassified Class	Class	Visual Interpretation	Reclassified Class
1	Water, shadow	Unclassified	1	Line dropouts	Unclassified
2	Haze	Unclassified	2	Water, shadow	Unclassified
3	Forest	Forest	3	Forest	Forest
4	Forest	Forest	4	Forest	Forest
5	Forest	Forest	5	Cloud	Unclassified
6	Bare soil	Non forest	6	Forest	Forest
7	Forest	Forest	7	Forest	Forest
8	Cloud	Unclassified	8	Bare soil	Non forest

The result maps of the image classification are displayed in Figure 9, Figure 10 and Figure 11 as follow.

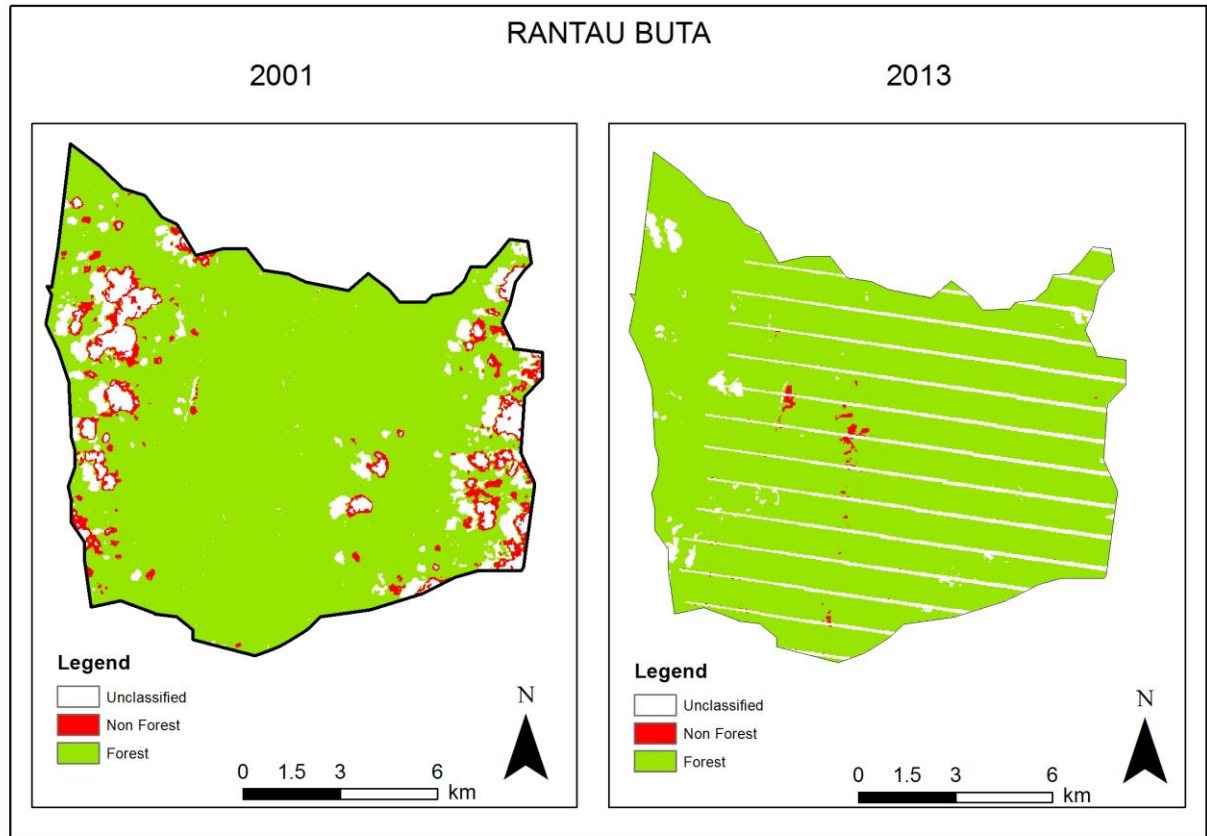


Figure 9 Classified map of Rantau Buta

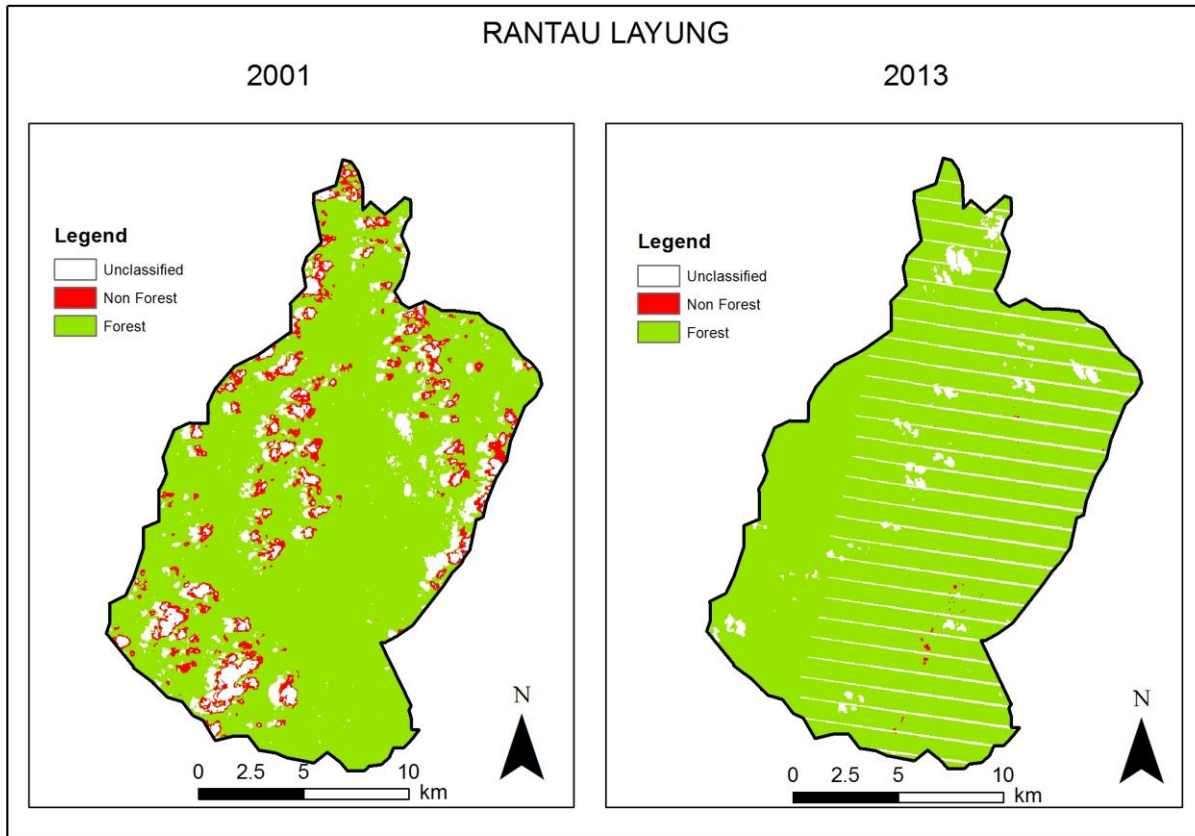


Figure 10

Classified map of Rantau Layung

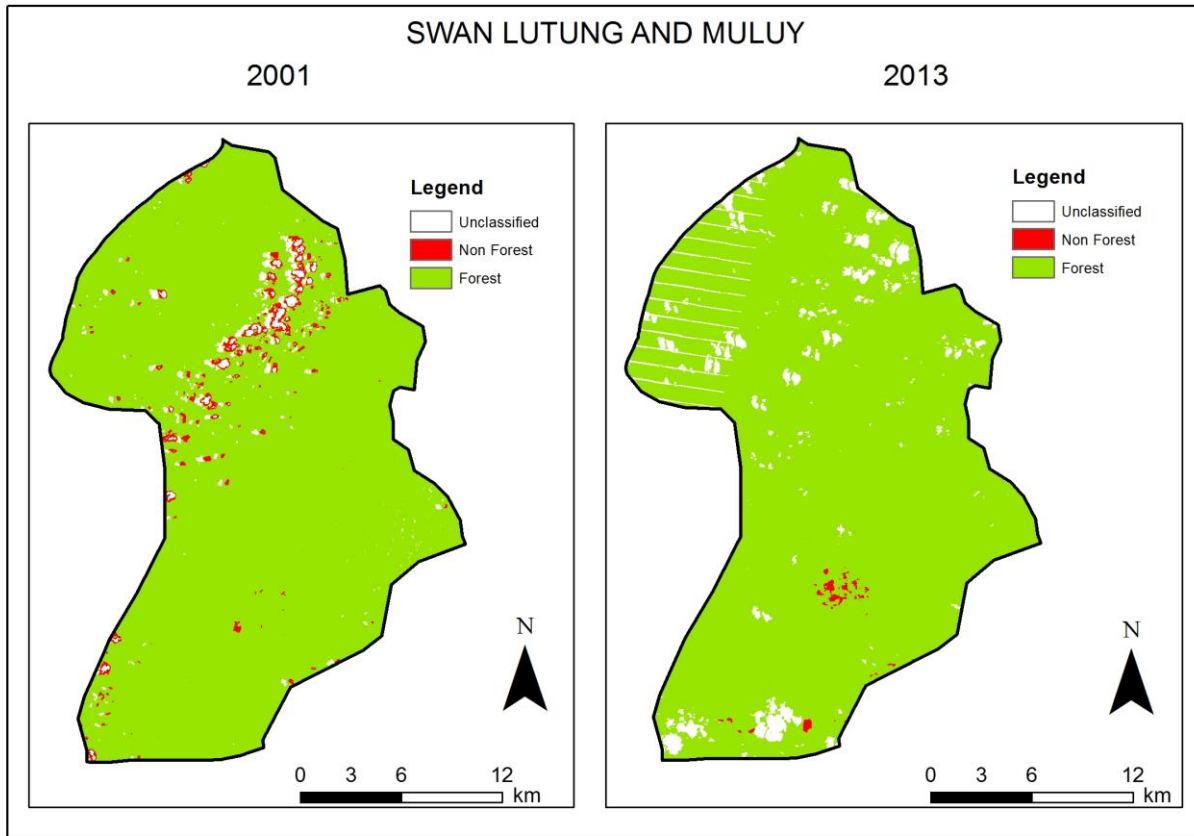


Figure 11 Classified map of Swan Lutung and Muluy

3.6.4. Change Detection

The change detection technique was selected by this research to measure the change of forest land cover in the study area. Here the change detection was conducted by comparing two images that are separately classified and have different date of acquisitions. This technique refers to post-classification comparison (Alkema, Bijker, Sharifi, Vekerd, & Verhoef, 2012; Davids & Doulgeris, 2007). The result of the change detection will be presented and discussed in Chapter 6.

3.6.5. Limitations

Even though the use of remote sensing techniques can provide useful information about what happened on the earth surface, this research is aware of its weakness. First, the quality of the images that had been used in this research contain cloud covered area. Cloud coverage can lead to a false interpretation or classification because it causes an ambiguous spectral value, for example the spectral value of cloud and bare soil have a similar value. Second, there are subjectivities to define classes and visual interpretations. It means result maps are only according to the correspondence user, and probably has different results if the classification was conducted by another user. Third, the result only detects the forest cover change during 2001-2013 but it is not able to detect what type of forest that has changed because of the resolution of images are 30m x 30m in pixel size. However this research believes that it is trustworthy to use the remote sensing technique to enrich the result of this research instead of only rely on the qualitative data from documents and interviews.

3.7. Validating the Data

When it comes up to the validation, this research actually faces the difficulty to do it. Refer to Richards (2005), the 'member checking' method is the most suitable to validate qualitative data that derived from interviews. The member checking is the method to validate data by sending the result of the research back to those who have been studied. So, it is expecting the respondents to give feedbacks to the research whether the research has used their views and opinions in proper ways or not. However, this method is not possible to be conducted during this research due to the time limit. Hence this research proposes another method which is the 'triangulation'.

Triangulation is the term widely used for research design where different methods of handling the data are brought to accept on the research question. In simple words, triangulation is using a similar question in different ways (Richards, 2005). In this research, the triangulation method was conducted by comparing the result of the *adat* community involvement in spatial planning based on the actual practice and the earth surface condition. The actual practice was investigated by using textual data and interviews. In the other hand, the earth surface condition was investigated by using remote sensing tools. It is expected that by using two different methods this research will provide a balance results of what people think according to their practice and what actually happens on the earth surface. Nevertheless, this research is really aware of the weakness of triangulation. Here, the triangulation will provide different perspectives from many ways to answer the research question rather than to give a reliable judgement which result is better than the other result.

3.8. Limitations

Although I have tried to do the best use of the time when I did the fieldwork in Paser Municipality in Indonesia, it is really urgent to be aware of some limitations. First, this research cannot claim to have provided a comprehensive overview of practices of the *adat* community involvement in spatial planning. It is not possible to describe practices in descriptions entirely. The practice complexity of the *adat* community in the customary rights and spatial planning can only be understood in their everyday doings. The explanation about the *adat* community practices here is only a simplification of the real situation based on a limited number of respondent's opinions, and only has purposes to answer the research question.

This research also has limitation in geographical scope. The description of the *adat* community involvement in spatial planning only represents a small *adat* community in Paser Municipality. This means, the description might not be accurate to portray the *adat* community practice in spatial planning, and does not represent the other practice in Indonesia. Even within the narrower empirical context in the Paser Municipality, this research may not be able to interview the potential informants for instance the NGOs that have experiences in the *adat* community advocacy. However, it does not mean this research does not make any significant contribution to spatial planning and *adat* community development especially in Indonesia. This research have a confidence in enriching the experience of spatial planning practice that involves the indigenous people. Having the theoretical and methodological background that have been set out, next chapters will offer the result of the study.

4. PROCEDURES AND THE ADAT INVOLVEMENT IN SPATIAL PLANNING PROCESS

4.1. Introduction

Mainly, this chapter aims to describe how the current spatial planning works and how it involves the *adat* community. It will be shown by the development of spatial planning in Indonesia since the Independence Day that described as chronological events. The sources of this section are mainly from legal documents and government publications that were acquired through the desktop research.

Then the chapter continues to describe what the current spatial planning process is and how it works. Also, the chapter will investigate the *adat* involvement in spatial planning based on the views from the current stakeholder. This sections have been built from interview excerpts of the municipal government officials that were acquired during the fieldwork. Furthermore, the section of the procedures of the current spatial planning and the current stakeholder are based on coded interview excerpts from local government officials. Then, the chapter go to categorize findings based on the narrative of interview excerpts into five categories which are 'procedure', 'stakeholder', 'awareness', 'views' and 'participation'. The chapter is ended up by the conclusion section.

About references, the chapter only acknowledge the reference of the government publications and related articles. While for legal documents and interview excerpts, there are only limited acknowledgements to references and mostly using narrative summaries, solely proposed by this research. The chapter will be wrapped up by a final remark.

4.2. Spatial Planning in Indonesia

When bearing in mind about the history of spatial planning in Indonesia, it is possible to look series of laws that tried in different ways to define spatial planning as a system of space planning, space utilization, and monitoring of space utilization. Based on spatial planning Law 26 (2007), the implementation of spatial planning is an activity includes management, implementation, and spatial-plan monitoring. As said in the Republic of Indonesia Constitution, land, water, and airspace are controlled by the state. This legal phrase becomes the first milestone of the Government of Indonesia to control and regulate the distribution and allocation of all the land from the colonial government as nation properties. This legal phrase also become the background for the Government of Indonesia to set the agrarian law namely the Basic Agrarian Law 5 (1960).

The Basic Agrarian Law 5 (1960) aimed (1) to regulate and implement the appropriation, the utilization, the reservation and the cultivation of that earth, water and air space; (2) to determine and regulate the legal relations between persons concerning the earth, water and air space; (3) to determine and regulate the legal relations between persons and legal acts concerning the earth, water and air space. This law also put the foundation of the *adat* community recognition. It stated that, the implementation of the *hak ulayat* (the Indonesian term for customary rights) and rights similar to that of *adat*-state's interests are based on the unity of the nation, and shall not be in conflict with the higher level acts and other regulations. It also emphasizes that the agrarian law which applies to the earth, water and air space, is the *adat* law as far as it is not in conflict with the national and state's interests based on the unity of the nation and the Indonesian Socialism.

Beside the recognition of the *adat* customary rights, the Basic Agrarian Law 5 (1960) also put the basic concept of the right to the land that widely implemented in the land registration. The right to the land covers (1) the right of ownership; (2) the right of exploitation; (3) the right of building; (4) the right of use; (5) the right of lease; (6) the right of opening-up land; (7) the right of collecting forest product; and (8) other right not included in the above mentioned right which shall be regulated by law and rights of a temporary nature.

However, the law itself did not regulate the forest land. It only stated about the right of collecting forest product. In other hand, the economic pressure was getting stronger. The Growth Domestic Product was below \$100 per capita. The government also had a large amount of debt. These factor encouraged the government to set the new law, the Basic Forestry Law 5 (1967) (Simon, 2000). This law mandated to optimize the forest resources.

As the result, the government gave concession to another parties to hold a forest concession rights (*bak pengusahaan hutan*/HPH). The government hoped this effort would make the forest management effective, since the government did not have many resources to do it. The idea to invite another parties to manage forest looked like a naive approach. The government assumed that the third parties would help to secure the forest sustainability by practicing a green forest management. Though, the practice had shown different results. There were violations among the forest management right holders and refusals from the local people (Simon, 2000).

Later it had been known, since the law was implemented, the local people were limited their access to the forest. Because, the forest was belong to the forest concession holder after they were granted the right to manage the forest. It was a crucial problem for the local people, because at the moment, they were highly dependent to the forest. Local people felt unsatisfied with this policy and started to disrupt the afforestation program. The afforestation program was a mandatory task for the forest concession holder after they make any clearance or exploitation in the forest. In the other hand, the government and the forest management holders blamed the local people for their shifting cultivation practice as the factor of forest degradation. Even though, later, this opinion was not really true and over generalized. Because, there were also corruption indications within the forest concession company. The forest concession company did illegal business by cutting down the forest irresponsibly (Simon, 2000). In 1986, the government established the forest land use agreement (*tata guna hutan kesepakatan*/TGHK) map. The government assumed this map would solve the problem, because it strictly drew borderlines in the forest area based on its function. So both the local people and the forest concession companies understood their boundary and its limitation.

Meanwhile, the reality displayed the fact that the forestry development did not get the expected result. The forest resources degraded. The local people were also marginalized. People sniffed the corruption practice in the forest concession company. The social issues in the forest area also emerged. Strong pressures from foreign and domestic investors to modernize planning regulation also emerged (Simon, 2000). This unfavourable situations became the cause for the government to synchronize forest and non-forest land management by set the first spatial planning law, namely spatial planning Law 24 (1992). The new law brought an evolution in the government about spatial planning. The law mandated the central government to delegate the planning authorization to the local government and encourage public participation. However, in fact the role of central government was still as important as before (Murdiono, 1998). Spatial planning Law 24 (1992) accommodated the importance of: (1) recognizing local autonomy; (2) integrating urban and non-urban planning; (3) including the sectoral planning in spatial planning; (4) integrating every level of planning; and (5) recognizing environmental protection in spatial planning. The law divided the land into to two categories, the conservation area (*kawasan lindung*) and the cultivation area

(*kawasan budidaya*). The conservation area is region which has a function to ensure the environmental sustainability which consists natural and artificial resources. While, the cultivation area is region which has a function to be cultivated based on its natural resources potential, human resources, and artificial resources. In the practice, the conservation area refers to the forest area, and the cultivation area refers to the non-forest area.

Especially for the conservation area, the Forestry Law 41 (1999) clearly categorize the function of it. The law itself is an improvement of the Basic Forestry Law 5 (1967). According to the law, the forest land are categorizing into three main functions which are; (1) the conservation forest; (2) the protection forest; and (3) production forest. The conservation forest is a forest area with certain characteristics, which have principal function of preserving the diversity of plants and animals as well as ecosystem. The protection forest are forests that have the principal function as protection of life support systems to manage the water system, prevent floods, control erosions, prevent the sea water intrusion, and maintaining ground fertility. Production forests are forests that have the principal function producing forest products. Forest products are objects of biological, non-biological and derivatives, as well as services derived from forest.

In principle, the production forest is the forest area that can be exploited for its resources, while both of the conservation forest and the protection forest are prohibited to be exploited. As regulated in the Minister of Forestry Regulation 28 (2009), if there is any plan to convert the forest land, it needs an approval from the Integrated Team. The Integrated Team is a combined team assigned by the Minister of Forestry, comprising from central and local government with related competence, and the scientific authority such as universities or research institutes. The Integrated Team is meant to be independent and objective in performing their duties as the assessor for forest land conversion feasibility.

Despite the fact that the Government of Indonesia has had two main regulation in land use which are the Basic Agrarian Law 5 (1960) for the non-forest area and the Forestry Law 41 (1999) for forest area, the dynamic of politics put another pressure to urge the Government of Indonesia set the new rule in spatial planning. As well known, Indonesia had a national movement to change the governmental system in 1998. The political system was centralistic, meaning the central government was the single authority in making public policy. During the movement, the people wanted more decentralized government, meaning the local government must be strengthened for their authority. As result, hundreds of the new autonomous region were formed. The people of the autonomous region voted their Regent/Mayor and the local parliament in a democratic way. The local government has the right to exploit their resources for their own wealth. As the consequence, many regulations that have a centralistic tendency should be adjusted including spatial planning Law 24 (1992).

In April 2007, the Government of Indonesia promulgated spatial planning Law 26 (2007). The law introduced new principles which are: (1) to be efficient, effective, and appropriate in using of natural resources and man-made resources in order to sustainably improve the quality of human resources; (2) to be transparent, effective, and participative spatial planning to achieve secure, comfortable, productive and sustainable space for living; (3) to have the protection function of space to prevent the negative impact on the environment; and (4) to get the balance between prosperity and security. Furthermore, the law was based on the need to have better spatial planning regarding to the present situation of: (1) national and international situation demanding the enforcement of the principles of integrity, sustainability, democracy, and justice in order to design better spatial planning; (2) the implementation of decentralization policy which gives greater authority to local governments in the implementation of spatial planning need to be regulated in order to maintain harmony and integration interregional, and did not result in inequality between regions; and (3) higher community awareness and understanding on spatial planning and its regulation, implementation, supervision and control should be consistent with the new situation in the

society. In term of land use, the law still uses the conservation area and the cultivation area similar to the previous spatial planning law. Figure 12 is the streamline of the development of spatial planning regulation in Indonesia.

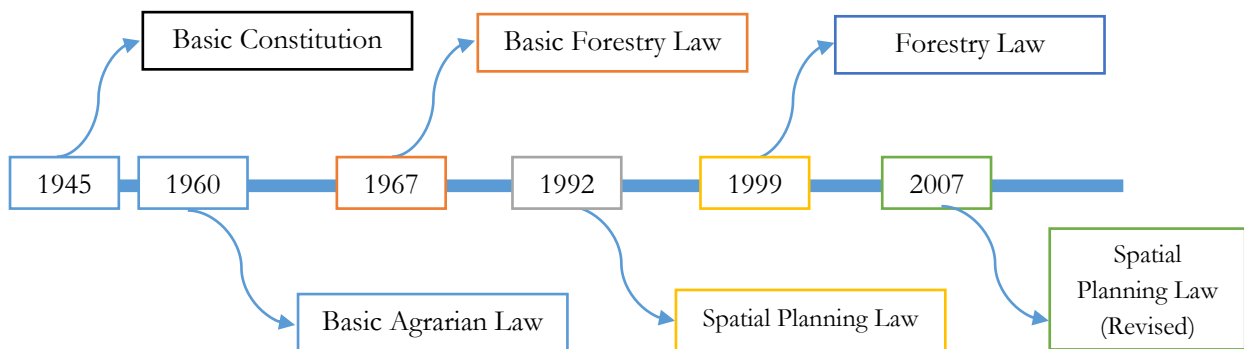


Figure 12 Development of spatial planning regulations in Indonesia

At this point, it takes more than 60 years to establish spatial planning law in Indonesia. Through years, spatial planning law in Indonesia has adapted to the national politic situation. In the Old Order Era (1945-1966), the space only regulated by the Basic Constitution and the Basic Agrarian Law 5 (1960). Meaning, the government only concerned how to regulate the relation between land, people and legal system. The ownership of the land is an important matter, perhaps it was related the situation as a young nation. The nation was trying to claim its identity. When the situation changing, the new rule was set. The New Order Era (1966-1998) is well-known as the period of centralistic government. The central government controlled the use of space. The forest area had gotten more attention due to economic pressure, and resulted the degradation of forest. The government tried to minimize the degradation by set spatial planning Law 24 (1992). In the Reformation Order Era (1998-now), the government has established two regulation that highly related with spatial planning, the Forestry Law 41 (1999) and spatial planning Law (2007). Both of the regulation introduce the new principle that give more respects to the environment sustainability and the community participation.

Indeed, the description of the development of spatial planning regulations in Indonesia above is a simplified chronological story rather than a holistic story in the development of spatial planning in Indonesia. The narrative only considers the major laws that become the basic regulation in spatial planning in Indonesia. It does not explore for the more detailed regulations that entitled to those major laws. So, it is not really provide the depth review of spatial planning regulation in Indonesia. It is simply because there are hundred regulations to be reviewed in order to give a comprehensive insight (Rukmana, 2008). It would be difficult to be done within the given time for this research. This research will be more focused in the *adat* involvement in spatial planning. In the next section, it will be a synthesis of the procedure of spatial planning in Indonesia and how spatial planning involves the *adat* community in spatial planning as mandated in the regulation.

4.3. The Procedure of Spatial Planning Process

The procedure of spatial planning process in Indonesia is quite well-described in the Government Regulation 15 (2010) as the part of the implementation of spatial planning. The implementation of spatial planning is the effort to achieve spatial planning objectives through the implementation of the space planning, the space utilization, and the control of the space utilization. The regulation requires the implementation of spatial planning to follow the procedure. Based on this regulation, the procedure of

spatial planning process is divided into two categories, which are the procedure of preparation and the procedure of establishment. This section will elaborate each procedure.

4.3.1. The procedure of spatial planning preparation

It is explained on the Government Regulation 15 (2010) that the procedure of spatial planning preparation should comply three standard procedure, which are (1) spatial planning preparation process; (2) the involvement of public role in the formulation of spatial planning concept; and (3) the discussion of spatial planning draft with the stakeholder. Spatial planning preparation process follows several steps. The first step is preliminary phase, which is meant to prepare the pre-requirement of the project. It could be related to the budget, procurement, and administration matters. Second, it is the step to collect the data that might be used for formulating spatial planning. Then, the process is continuing to the third step which is the data processing and analysis. It meant to provide insights regarding to data in an analytical framework. It recommends the pre-concept of spatial planning. The fourth step is the concept of spatial planning establishment. It covers the decision making of spatial planning concept. The last step is the legal drafting step. It aims to write up all the research that has been acquired during the process into a legal draft. The legal draft itself is the design draft of spatial planning regulation. This is the end of spatial planning process.

The involvement of public role in the formulation of spatial planning concept is conducted by a mechanism in accordance with spatial planning stages. In general, these mechanisms can take the form of delivering information, suggestions and advice orally and in writing. It can be performed through a variety of media information in accordance with the development of existing technologies (i.e.: print and electronic media, seminars, workshops, public consultation, brochures, cultural activities, websites, exhibitions, public hearing with the community). This mechanisms can be carried out by individuals, community groups and organizations as well as professional organizations that do advocacy planning to authorized agencies (Bakar, 2009).

The discussion of spatial planning draft with the stakeholder is the crucial procedure. It requires a round table discussion where all the stakeholder represent and express their interest about spatial planning concept. It should be able to convey the aspiration group as people voice, have an influence on the group as influenced people, and have interest in the development of the city or region as interested people (Simarmata, 2009). The next section will discuss the procedure of spatial planning establishment.

4.3.2. The procedure of spatial planning establishment

The procedure of spatial planning establishment is different for every government level. Since the scope of this research is in the municipal level, this section only makes an overview on the procedure of spatial planning establishment in the municipality. According to the Government Regulation 15 (2010), the procedure to establish the municipal planning follows several standard steps. First, the Regent will submit the legal draft as the result of spatial planning preparation to the municipal parliament for approval. With this approval the municipal government will bring the draft to the Province to get recommendation from the Governor. At this stage, the provincial government ensures whether the Province interest on the municipal spatial planning has been accommodated or not. Afterward, the municipal government send the legal draft along with the governor's recommendation to the Minister of Public Work for the substance approval. The substance approval aims to ensure the national interest has been accommodated in the municipal spatial planning. If the draft has been approved, the municipal government will bring the approved draft to the municipal parliament. This stage means to make a consentience with the municipal

parliament. Next, the municipal government submit the draft to the Governor to be evaluated. If the Governor approve the draft, the Regent can sign and establish the draft as the local regulation.

As a national legal product, the procedures in spatial planning process above applies to whole country. It means the procedure is a generic procedure. There are possibilities that the procedure is difficult to apply in a particular local circumstance. For the empirical evidence of the procedure implementation, the next section will investigate how the procedures work in Paser Municipality as well as how the *adat* community involve in spatial planning process.

4.4. Investigating How the Current Spatial Planning Process Works by Interviews

Considering that the procedure in spatial planning law provided by the national regulation is a generic procedure for whole country, it is necessary for this research to investigate how the standard procedures in spatial planning process have been applied in Paser Municipality. This research will explore the practices based on the interview with the municipal officials. The investigation results will be explained in two sections which are procedure practices and stakeholder practices.

4.4.1. The Practice on Procedures

Previously, the Municipal of Paser had set the local spatial planning regulation in 1999. The spatial plan set forth in the Local Government Regulation Number 6 (1999). It was registered in the Local Government Sheet Number 2 (1999). It was under the jurisdiction of spatial planning Law 24 (1992). According to the law, spatial planning regulation will be expired after 10 years. Meanings, the expired year for the Local Government Regulation Number 6 (1999) is on year 2009. Due to this cause, BAPPEDA began to plan a new spatial planning process. That new spatial planning process began in 2006. However, the process was not straight forward. The municipal government faced the problem with archives. They did not manage to get the document of the Local Government Regulation Number 6 (1999). They actually wanted to review the previous regulation as the material for the preparation of the new spatial plan. They did look for this document everywhere, but apparently they found nothing. It was registered, but they have never seen the documents. There were not neither well-recorded technical documents nor legal documents. Finally they realized that the municipality used to have spatial planning but the document cannot be found because it was treated as unimportant documents.

Actually for spatial planning issues, the local governments had no awareness before spatial planning Law 26/2007 had been enacted. They have a new awareness about it after the law was published in 2007, and also there were many application of land permits that need to be justified by spatial planning. As said by an official from the SETDA.

So indeed, spatial planning is still used as a reference, opinions, and rules. [We always] refer to spatial planning to issue permits. (Interview excerpt L5 #147)

The whole process of spatial planning was completed in 2008. At that time, there were no lower regulations of spatial planning Law 26 (2007), meaning the law had no technical instructions. To get around with this problem, the municipal government made initiatives to refer the previous spatial derivatives legislation of spatial planning Law 24 (1992). Even though it was not supported by any technical regulations from spatial planning Law 26 (2007), it was approved by the local parliament as the Local Government Regulation 6 (2008).

After this legislation process, many new technical regulations from spatial planning Law 26 (2007) was set by the central government and weakened the legal position of the Local Government Regulation 6 (2008). Subsequently they had many technical consultations with the central government, and it turned out that the Local Government Regulation 6 (2008) was not recognized because it did not conform to the later coming technical regulations. Then, the municipal government accepted to restart the new spatial planning process. They were aware of many technical material shortcomings inside the Local Government Regulation 6 (2008). Also, they strictly follow the rule and the procedure from the central government.

In brief, the municipal went again for reviewing the Local Government Regulation 6 (2008). They followed the procedures that had been set by the ministries that in charge of spatial planning affairs on behalf of the central government. At this point, the municipal government was ready to follow the new spatial planning process as described in the section 4.3. The municipal government started with the preparation procedure first. They began the new spatial planning process with the collection of data and build the spatial database because this is the main requirement to prepare the new spatial planning document. Indeed, there are adjustments of such spatial structure or spatial pattern because they adjust to local conditions. The municipal government utilized studies or research that they had done also in designing the spatial structure and pattern. It was completed in late 2008. This time, the municipal government had a technical assistance from central government consultants who were guiding them through the process. The consultants were assigned by the central government to ensure the municipal spatial planning process is on the right procedure. So in fact, their procedure was referred to spatial planning Law 26 (2007).

The technical assistance from the consultant really helped the municipality through the preparation procedure. The legal draft of spatial planning was already in the municipal government. The process went on to the establishment procedure, which the municipal government had the responsibility to bring the legal draft to the higher government level for approval. Apparently, the municipal government convinced the Governor to give a recommendation. Meaning, the legal draft was ready to be sent to the central government for the Ministry approval. In December 2011, they got spatial planning substance approval from the central government. At this moment, they were optimistic. With the substance approval from the central government, they will have a regulation in spatial planning as soon as possible. But the optimistic view turned out to something in contrary. The substance approval from the central government only accommodated the national interest instead of the approval of the municipal spatial planning establishment. As the official from BAPPEDA said:

[It is merely] because in the substance approval process, there are some things that we skip primarily in the term of spatial pattern, meaning that yesterday's substance approval is only accommodating provincial and national interests, but not yet accommodated local . (Interview excerpt L1 #148)

For the information, in spatial planning Law 26 (2007) the term of spatial pattern refers to the land use either in the conservation area or the cultivation area. Especially for the conservation area, it is needed a separate approval from the Minister of Forestry if the local government wants to convert the forest area to another use. This ministry approval hindering many spatial planning process in other provinces to be completed in time before 2009 (Mangkudisastra, 2012). Problems in the conversion of forest areas raised because the forest area boundaries did not consider the field condition, so it needs to be rationalized. The Municipality of Paser also has to face the problem with the Minister of Forestry approval, since them wants to convert some land in the forest. Conversion in forest areas is through an approving process of the Integrated Team at provincial level. The conversion is the result of recommendation from the Integrated Team. In their latest proposal to the Minister of Forestry the Municipality of Paser wanted to

converse 120.000 hectare of forest area, but only approved by the Integrated Team as much as 29.000 hectares. Indeed, the municipal government objected this approval. The objection of the municipal government regarding to the approved number because the boundaries setting was established by the central government through TGHK map in 1986 when the central government was a single authority. Nowadays, problems related with the forest boundaries are raised because people now can claim their right in democratic ways, as said by the interviewee:

They are curious whether the boundary was set on the table without any socialization, because [there is] evidence that the boundary [document] was signed by the head of the village. [It was the common practice] in the New Order Era. The government can force people to sign [and agree] to anything. But for the Reformation Order Era, [we have] the opposite practice. To solve the problem we have proposed the amendment of forest area. (Interview excerpt L2 #102)

As the amendment of the forest area becomes the major hindering factor in the local spatial planning process, the central government had offered the solution. All the forest area that have not yet approved for conversion could be left as a holding zone. That is to say, it is possible to have a polygon without legal status on spatial planning map until it is set by the legal process for its status (Mangkudisastra, 2012). It also become the main concern of the municipal government.

[The major problem] is the amendment of the forest area. The boundary of nature reserve also. They are still questioning how the boundary was established. (Interview excerpt L2 #104)

However, the Regent of Paser Municipality prefers to wait for the results of changes in the forest area rather than using the central government solution. He wants the forest areas conversion to be completely accommodated in the new spatial plan. It means, the municipal government continues to struggle for the new Integrated Team approval so their local interests in forest areas can be accommodated. As results, the municipal government now concludes that there is legal emptiness situation in spatial planning and take this situation as an experience, then desperately said:

Now the draft of the new spatial plan has been in the legislature, but it is so bogged down because of the ministerial decree in forestry. Meanwhile, we are pending [all the process and what] we will agree. Yesterday we gave some of BKPRD insights [about this issue]. It is still undecided we can go forward or we delay [the process] (Interview excerpt L1 #106)

In this point, it can be seen that the Municipality of Paser has been trying to follow the procedure in their spatial planning process set by the central government. The procedure is quite time consuming. It is shown by how the process lasts from 2008 until 2013 and the process is still continuing. The procedure itself designed spatial planning process to be completed within two years period. However, the procedure seems not anticipate the complexity of the forest area amendment. As result, there is a legal emptiness in spatial planning in the Paser Municipality. This situation can lead to serious problems of the legitimacy of the spatial development and investment (Mangkudisastra, 2012). The next section will describe the practice of stakeholder in spatial planning process.

4.4.2. Stakeholder Experiences in Spatial Planning Process

Spatial planning stakeholder in the Municipal of Paser is working under the coordination of the *ad hoc* board of local spatial planning (*Badan Koordinasi Penataan Ruang Daerah/BKPRD*). The agencies that involved in BKPRD follow the standard, they are referring to the Ministry of Home Affairs regulation, and regulated by the Regent that include its institutions, working groups, and the secretariat. According to

the Ministry of Home Affairs Regulation 50 (2009), BKPRD is responsible to coordinate spatial planning process at the municipal level that cover the space planning, the space utilization, and the control of space utilization. The duties of BKPRD in spatial planning process are: (1) to coordinate and formulate spatial planning; (2) to integrate the medium and long term development plan with spatial planning and consider for mainstreaming sustainable Strategic Environmental Assessment (SEA); (3) to integrate and harmonize the municipal spatial plan with the national spatial plan and the provincial spatial plans; (4) to synergize spatial planning with the municipal neighbour; (5) to coordinate the consultation of the legal draft with the provincial; (6) to coordinate the implementation of the evaluation of spatial planning the Province; (7) to coordinate the process of spatial planning establishment; and (8) to optimize the role of society in spatial planning. The membership of BKPRD are all the local government institution that related to spatial planning. It also can add some other organizations or groups as a member. In Paser Municipality, BKPRD consists 21 member including LAS, as mandated by the Municipality of Paser Regent Regulation 87 (2009). The chairman of the BKPRD is the Local Secretary and the head of BAPPEDA as the secretary. Even though the BKPRD has many members, there are only three institutions that play major roles as stated:

Clearly there are three institutions [as the key stakeholder which are] BAPPEDA, DBMPTR, and DISHUTAMBEN. All of this institution is colouring [and playing significant roles]. (Interview excerpt L1 #63)

During the interview with the official from BAPPEDA, it revealed that the *adat* community is not involved in spatial planning process even though they have a representation in the board. The official said that there are the division of authority amongst the local government institution, and the DISHUTAMBEN is responsible to the issue concerning to the *adat* community. So, DISHUTAMBEN are frequently knowing it in the field, especially concerning the right of the *adat* forest. All the interviewees are aware that their institutions have duties to involve in the BKPRD as the part of their functions and duties by the law. The practical roles of each institution of the interviewees can be seen in Table 8 as follow.

Table 8 Stakeholder roles

No	Institutions	Roles
1	BAPPEDA	BAPPEDA is the secretariat. We are the person who running this secretariat. (Interview excerpt L1 #118)
2	SETDA	The chairman is the Local Secretary. (Interview excerpt L1 #119)
3	DISTANBUN provide information for the suitable plot of certain commodities. (Interview excerpt L3 #124)
4	DISHUTAMBEN provide a general description boundaries of the forest area. [It could be the boundary between] a non-forest area and a forest area. It would be also related to the conservation area. (Interview excerpt L2 #125)
5	DBMPTR to plan a municipal capital region in accordance with the recently conditions, as well as in other sub- municipal for the next twenty years. (Interview excerpt L4 #126)

All of officials think their institution roles in the BKPRD are satisfied, except DISHUTAMBEN that think the central government does not give them a full authority to do forest surveillances. Also, DISHUTAMBEN criticize the authority division between the municipal, provincial, and national government.

The role [of DISHUTAMBEN] has not been in line with our expectations. That is, our authority is limited only in non-forest area, while [the authority] for the forest area is in [the Ministry of Forestry], in this case [it could be] at whether the province [level] or the ministry [of central government]. (Interview excerpt L2 #112)

Since the BKPRD is the coordinating board, it is needed the power sharing amongst its member to make the coordination more effectively. For example, the Local Secretary is leading to submissions to the legislature, while BAPPEDA is handling technical issues with the other member. BAPPEDA also shares the authority when is doing spatial planning process with DBMPTR. BAPPEDA is responsible to handle the macro or regional planning while DBMPTR is responsible for the micro or city planning. Only DISHUTAMBEN that has to share its authority with external institutions. It has to share the conservation area protection within the municipal region with the natural resource conservation board (*Badan Konservasi Sumber Daya Alam/BKSDA*), a central government institution. DISHUTAMBEN authority can be said as zero authority in this case. As the coordination board, BKPRD also faces the conflict of interest with the central government, as said by the official from DISTANBUN.

[There are] problems with the transmigration land. This land are reserved but never be cultivated because ruling officials are from the local government. They are not the central government [officials]. But sometimes, the central government is still questioning about transmigration [land]. [Because] there is no activities [in this land], many prospective users want to apply permits [to use it]. They apply to us, not to the central government. Their reason is why are there such land without any activity on it? How could [the central government answer this question], even they had no officials in the area. Their officials now are scattering in many offices of other departments. Well, [like or not] we are the shooting target of [people]. (Interview excerpt L3 #116)

At this point, the BKPRD is the only board that coordinate matters related to spatial planning in the municipality. Because the members are mainly local government institutions, their work seems so bureaucratic, rigid and less representing the people. The fact that the *adat* community should involve but in the reality it does not involve, leads to the curiosity of what happen with the *adat* during spatial planning process. The curiosity is being investigated in the next section.

4.5. Views on Adat Community and Their Involvement in Spatial Planning

As explained in the previous section, spatial planning practice in Paser Municipality only involve the stakeholder with the governmental background whereas the *adat* community also has right to involve in spatial planning process according to the regulation. Hence, it is clearly needed to investigate how the other stakeholder view the *adat* community. In addition, it is important to explore the *adat* community involvement in spatial planning based on municipal government official perspectives. This section will elaborate the investigation in two part. The first part is a brief overview of who is the *adat* community and their key characteristics. While, the second part will elaborate how the *adat* community involves in the current spatial planning.

4.5.1. A Brief Overview of Who is the Adat Community

When it comes to the term of the *adat* community, the first thing that appears in minds is a question about who the *adat* community is. As said by the municipal government officials, it is easy to recognize who the *adat* people are. The *adat* people usually belong to a community in the village with the close hereditary. For example, the municipal government officials refer to *adat* people who live in Muluy. In Muluy, people have identical faces because of marriage within close blood lines. The *adat* people are basically a big family who live in a certain area, mostly secluded, in Paser Municipality. The *adat* village usually has distinct characteristics in term of its structure. In the village like Muluy, they have the head of

the village, traditional leaders and customary rights. They make their own coordination system between them. If the *adat* leader says no, in most of cases, the rest of the *adat* people will say no as well. It would not be a peculiar case if the head of the village is the son of the *adat* leader. So, it can be said the *adat* village is a family business.

The *adat* community always has been related to their practice in the forest. The *adat* community is well known for doing shifting cultivation. The shifting cultivation is a method cultivation by abandoning land after the land have been used for sometimes to seek new location to start a cultivation again. The *adat* community used to plant perennials, such as *sengon*, rubbers, *cempedak*, and fruits, but not oil palms. In Paser, rubber trees are the most favourable plant to grow.

In many occasions, the *adat* community is blamed as the cause of the forest fires. They are accused abandoning burning land during the shifting cultivation. However, officials do not agree with this accusation as they observed that the *adat* community is so wise in managing the forest. Actually, the *adat* community practice something in contrary, as said by the official:

They also object [if they are blamed for] causing damages to the forest [because their] shifting cultivation. They have objections [about this]. They claim they do the shifting cultivation from generation to generation, and it never damages their forest. (Interview excerpt L2 #20)

They already know when they want to burn the field, and they make the field surrounded by firebreaks [to isolate fires]. But they do not know the modern name of firebreaks but they do practice it. This means that they already aware, what makes another [unnecessary] burning. (Interview excerpt L3 #14)

Related to the environmental issues, the municipal government official are aware of the *adat* wisdom on it. The *adat* community has a belief that ‘forest is us, we are the forest’. So if there are damages in forests, it is equal to ruin their own lives. Because their life and the forest are interdependent, they do understand to maintain the natural conditions of the forest with their utmost. To ensure this wisdom are obeyed, the *adat* community does not hesitate to give fines to anyone who does practices that do not comply with the customary practices in forest. After this brief overview of the *adat* community based on the official’s perspectives, the next section continues to explain the involvement of the *adat* community in spatial planning.

4.5.2. The Adat Community Involvement in Spatial Planning

The beginning assumption of this research was if by the law the *adat* should involve in spatial planning process then the *adat* community must involve during the process as the respect to the law. However, the practice shows a different story. All the interviewee confessed that either the *adat* community does not involve directly or they have a very limited role. The municipal government has a meeting with the community and the village but not specifically with the respective *adat* villages. The villages usually engage in public consultation or socialization. The municipal government does not engage directly to a particular community. The *adat* involvement in spatial planning process is more indirect involvement rather than a direct delivery of their opinions, as said:

So actually there is an involvement but not a direct involvement with our agency. [They directly involve with] Forestry, Agriculture or Fisheries or Other Technical Service. [These services] convey their [opinions and needs]. (Interview excerpt L1 #3)

The reasons behind of the non-involvement of the *adat* community are vary. The first reason is the generalization of the status of the village. There are no specific *adat* village. There are 139 villages with a similar legal position. The municipal government does not specialize any village to be an *adat* village or non-*adat* village. All the village get a similar treatment and community programs. In this sense, the municipal government believes that there is no need to involve the *adat* community specifically, as long as the municipal government does the similar treatment to all the villages, the *adat* must be involved too. The municipal government is confident to say that the *adat* community trusts the government in managing spatial planning. Officials assume that the *adat* community has beliefs on the municipal government in term of their interest of whatever in spatial planning is, and satisfied with the government decision. So, the *adat* community can only focus on their simple mind to use the natural resources.

The second reason is related to the conspiracy of the higher decision maker entity. Even though it is purely presumption, it came up during the interview. There is no awareness to the *adat* concerning matters at the higher level of the decision makers, due to the fear to be more transparent to the *adat* community. Since, the *adat* community is getting more critical over the time. The transparency issue in the boundaries of the forest setting from the Ministry of Forestry is the example. The *adat* community does not understand about that spatial planning but they are entitled to the boundary that set by spatial planning. Nonetheless, it is interesting to notice that there is a personal judgement of the official to narrow the *adat* community role and their understanding about spatial planning, as said:

They are not involved, because they are less intellect. (Interview excerpt L4 #5)

However, it cannot be denied that the municipal government awareness to the *adat* community are strong, and their views about the customary right are solid. The municipal government has tried many effort to protect the *adat* forest.

[We] have proposed [to the central government] for the forest area amendment. We accommodate the aspirations of the various stakeholders, including indigenous people [like] in Kampung Muluy. We focus on those forest areas that have people live there. [We] want those areas no longer as [the state] forest areas. (Interview excerpt L2 #45)

The municipal government offers the project for social forest or afforestation to the *adat* community. There is also a technical assistance for their nurseries. The project is from the national budget that is given to the area. The municipal government also makes the *adat* community as a part of forums in the Public Protection Office. There, they provide inputs through activities that sometimes it is not official. They have meetings with stakeholder or even the Regent. The municipal government puts a strong commitment on the *adat* forest by not to have a plan for changing the *adat* forest in the spatial pattern plan, and make sure that the *adat* forest still belong to the *adat*.

The municipal government respect to the *adat* community and pays attention to the value and their knowledge. For example, in the protection forest of Gunung Lumut, where the *adat* lives, the municipal government will not fiddle with it in spatial planning. It was given to the people to live with the naturalness of it and will be preserve as the cultural site. It is an effort to accommodate the *adat* interest and avoid the heavy offense from the people. It is a part of recognizing the customary rights of the *adat* community as set in the Basic Agrarian Law 5 (1960). In addition, the *adat* customary rights should be kept away from any disruption. The municipal government could not have any violation against the *adat* customary right because it will clash with the environmental law. Besides, the *adat* community understands how to protect the forest.

Nowadays, the *adat* community emerges the trend to be more involved in the policy issues in order to preserve their Paser Identity. They make the networking with all the Paser natives who are sitting in the government body or the legal counsel such as the LAS, so they can distribute their opinion in spatial planning discussion. In the other side, the municipal government has efforts to involve the *adat* people especially with the forest boundary issues. The people should be given understandings related to the issues through a socialization or dissemination or involve them to build community forests. The municipal government wants to get benefit from the *adat* people to perform monitoring and evaluation to the regions belonging to their areas that intersect directly with the forest. The job would be easier if the *adat* community involves. So, the municipal government arranges the socialization. They invite the *adat* community to come in to the sub municipality office. They provide a map during the socialization and informs the *adat* community about the problem concerns to the protection forest or the conservation forest. This activity is done often even in a short event. Another way which the *adat* community express their interest is to become the member of NGOs, as said:

We certainly have a coordination with the village government. The *adat* people sometimes are also a member of the NGOs. The environmental NGOs, like GASAKLIBAS, has a member there. They are natives. So they sometimes participate in activities concerning environmental issues that are seminars. We invite them, we give the information that there are like this seminars and they came. Yes, that is one of [the way they express their stand]. Well, this kind of such [communication] patterns finally [develop] our relationship. They do not hesitate to come to the office anymore. (Interview excerpt I.2 #152)

So far, the trend brings both positive and negative issues to the municipal government. The *adat* community is more confident to report if there is a violation in their forest by any parties. They even make a report directly to the parliament or the Regent. This initiative is really helpful in making early warning of the forest problem since the government has shortcomings in personals and budget. The *adat* community also starts use the internet to communicate with the world, even though they sometimes mistakenly use it, they make reports of any issue to other people without any coordination with the municipal government.

In brief, the *adat* community is not involved directly in spatial planning. The current stakeholder in spatial planning process has provided the reasoning behind. Despite the *adat* community is not involved directly in the current spatial planning, the awareness and the respect to the *adat* community and the rights entitled to them are prevalence. The municipal government tries to involve the *adat* community in more ways even though it would not be specifically in spatial planning issue. The next section tries to wrap up the explanation of the current spatial planning and the *adat* community involvement.

4.6. Categorized Interview Excerpts

This section is proposed to elucidate the categorized findings based on the narrative summary of coded interview excerpts as mention in 4.4 and 4.5. Categorizing in a qualitative research aims to classify coded interview excerpts into a group (or families in ATLAS.ti) based on their similarity of patterns. Here the interview excerpts of section 4.4 and 4.5 are reduced into five categories that presented below.

4.6.1. Procedure

The category procedure defines the current spatial planning procedure and how it works. The procedure of the current spatial planning contains two type of procedures, which are the procedure of spatial planning preparation and the procedure of spatial planning establishment. The aim of spatial planning preparation is to develop the legal draft of spatial planning. During the legal development process, the

public should involve in every step of the procedure. Spatial planning establishment is the procedure in which aims to legalize the legal draft of spatial planning. It involve all the government level from municipal to national level.

In practice, the municipal government did not have a sense of importance of spatial planning until spatial planning Law 26 (2007) was promulgated and location permit applications from private sectors are increasing. So the Municipality of Paser start to make a spatial plan and then they practiced the procedure in 2008. Before that, the municipal spatial plan followed the old procedure introduced by spatial planning Law 24 (1992). It made the municipal spatial plan invalid and needed to be adjusted according to the new procedure introduced by Spatial Planning Law 26 (2007). So the Municipality of Paser did the first procedure which is the preparation procedure. During the process, the Municipality was helped by a technical assistant from central government. The municipal government also used their resources of spatial data base and documents to make the municipal spatial planning fit with the local context. The procedure was accomplished in 2008, and then the municipal government continued to the second procedure which is the establishment procedure to get spatial planning approvals from the higher government level. Shortly, the Municipality of Paser got the approval of Minister of Public Works in December 2011. They were optimistic to accomplish the second procedure of spatial planning. However it could not be true because the Minister of Public Works approval only accommodates the national interest and not approves the municipal interest to convert the forest land. The municipal government needs the approval of Minister of Forestry based on recommendations of Integrated Team. The municipal government proposed to convert 120.000 hectares of forest land however the Integrated Team only recommend 29.000 hectares. The municipal government objected this recommendation because it was based on the boundary of TGHK map when the central government was a single authority. As result, the establishment procedure is not accomplished and the municipal government is pending spatial planning process until they get the approval from Minister of Forestry.

4.6.2. Stakeholder

The category stakeholder defines the experience of current stakeholder in doing spatial planning process. Stakeholder of spatial planning in Paser Municipality is under the coordination of BKPRD based on the Regent Regulation 87 (2009). BKPRD has 21 members across municipal government agencies and services, including LAS. However only three institutions which are BAPPEDA, DBMPTR and DISHUTAMBEN that play significant roles. It reveals that the *adat* community does not involve in spatial planning process even though they have representation in the board according to the regulation. All matters related to the *adat* community in spatial planning is taken over by DISHUTAMBEN. So far, all the government institutions have certain roles and power sharing amongst them. For spatial planning in forest area, BKPRD does not have an absolute authority because forest areas are controlled by the central government.

4.6.3. Views

The category views defines stakeholder views on the involvement of the *adat* community in spatial planning. Stakeholder defines the *adat* community as a community in the village with a close hereditary. They also characterize the *adat* people with their practice of shifting cultivation. Stakeholder do not agree if the *adat* community is blamed for causing forest fires because stakeholder know that the *adat* people have knowledge of environmental protection.

Stakeholder confessed that the *adat* community does not involve in spatial planning or has limited roles. The municipal government does not engage a particular community such as the *adat* community in spatial

planning. Reasons behind the non-involvement of *adat* community in spatial planning are vary. First, the municipal government gives the similar treatment for the *adat* and non-*adat* community. The municipal government assumes that general treatments to the community is more inclusive. The second reason is the decision makers are afraid with the *adat* community since they are getting critical about the transparency of the policy over the time. Third, there is also a prejudice that the *adat* community is less intellect to be involved in spatial planning.

4.6.4. Awareness

The category awareness defines stakeholder awareness of the *adat* customary right within space. It reveals that the municipal government awareness on the *adat* community rights in spaces are strong and solid. The municipal government has a strong commitment to protect the forest where the *adat* people live. It is an effort to accommodate the *adat* community interest and to avoid a heavy offense from the people. The municipal government does not want to make any violations against the *adat* customary rights because the issue is delicate, and also the customary rights are protected by the law.

4.6.5. Participation

The category participation defines participation of the *adat* community in spatial planning. The *adat* community participation in spatial planning is very limited to the issue regarding the forest boundary. They never have involve in the broader issues of spatial planning. The municipal government used to invite in the socialization and dissemination activities to establish the forest boundary, so if there is any violations in forest boundary the *adat* community can make a report to the authority. However, the municipal government do welcome their opinions regard to the other issues by giving them opportunity as the member of community forum in Public Protection Office.

4.7. Conclusion

At this point, this research is able to answer the first research question. The current spatial planning is according to the regulation and has two procedures to follow, which are the preparation procedure and the establishment procedure. Current spatial planning stakeholder are under coordination BKPRD in which the *adat* community also become the member. However the *adat* community is not involved during spatial planning process in practice. Their role in spatial planning is taken over by DISHUTAMBEN.

Nevertheless the awareness of adat customary rights in spatial planning among stakeholder is strong and there is a commitment to protect the forest where the *adat* people live. The municipal government also makes efforts to participate the *adat* community even though not specifically in spatial planning. Next chapter is about the *adat* people behaviour and their understandings of customary rights and spatial planning.

5. THE ADAT PASER, CUSTOMARY RIGHTS AND SPATIAL PLANNING UNDERSTANDINGS

5.1. Introduction

The chapter is dedicated to find out the customary right awareness of the *adat* community in spatial planning process. The chapter consists sections that will describe sequences of story. The first section is related with the *adat* beliefs on mythology that commonly considered as true characteristic of indigenous people. Then, the story continues to how the *adat* beliefs affect their daily life practice and behaviour. This first section aims to give broader understandings of who is the *adat* community as a societal entity before taking a further discussion about their awareness of customary rights in spatial planning. In the second section, an exploration will be conducted to investigate how the *adat* people understand their customary rights, while the third section will connect the issue of customary rights in spatial planning. The fourth section elaborates the categorizing of coded interview excerpts based on the three previous section. Here there are four built categories which are 'relation', 'welfare', 'understanding' and 'involvement'. Mainly, paragraphs are using narrative summaries of interview excerpts with a limited reference because paragraphs are derived from original interview excerpt of the respondents. The chapter will be closed by conclusion section.

5.2. Investigating the Adat Paser Beliefs, Daily Practices and Behaviours by Interviews and Observation

The socio cultural context of the *adat* community in Paser Municipality is a strong reflection of their history and origins. Historically the *Adat Paser* is not as famous as the Dayak, the biggest tribe in Kalimantan, and often people are misunderstood by considering the *Adat Paser* as a part of the Dayak. In fact, the *Adat Paser* is the only native tribe that lives in Paser Municipality. They have a clear distinguish from other native tribes of Kalimantan, for instance: the Dayak, the Banjar, or the Kutai. They have their own custom and language, and most of them have considered themselves as Muslim.

In the next Section, there will be cultural background information about *adat* mythology, shifting cultivation practices and the daily life of the *adat* people.

5.2.1. About Mythology and Beyond

The majority of the story about the *Adat Paser* origin is related to their beliefs in the mythology of the forest and the social changes due to the interaction with the other people. According to the *adat* tale, Paser people are from ghosts called *sangkuireang* and *sangkuripang*. *Sangkuireang* are the ghosts who step on the sky while *sangkuripang* are the ghosts who step on the ground. These ghosts were making a group called *bala*, and later the group transformed as the *adat* community. Somehow, the dominance of the belief in the mythology is also reflected in the *adat* daily life especially when they do the cultivation in the forest. They use what their ancestor did in days before, and think of it as a tradition that should be preserved. As a part of the tradition they practice ancient rites over generations, they always make *mamang-mamang*, or wood statues, before they open a new field especially in the dense forest with large trees. This wood statue is an exchange to the spirits because they cut the spirit's trees. The wood statues are symbols of permission of entering the forest to spirits. *Mamang mamang* is a resemblance of stake in human form. Each of the statues is used for the ritual use. They are replacements to the spirit, as the *adat* community opens the field. The statues are made from various type of woods such as: *bengerak*, *beneo* or *deraya*. The

adat community believes that the rites will bring a peace, secure, none of interference, and prevent the *adat* people from diseases that cannot be cured. They stick the statues to the ground with some spells to the spirit. During this rite, they look like doing a conversation whereas there is no one in the forest.

The *adat* community also believes omens. For example, if the first cut of field opening is a clean cut without anything stuck in the cutting equipment, they will continue the clearing works, but if there are anything stuck in their cutting equipment, they will delay the works until next days. This is the common ritual particularly for the *adat* community who lives in the deep forest. They believe, if during the first cut of the forest the machete hook something, it is a bad sign to stop the work for sometimes. It is a warning of danger from the spirit. They should not continue to work in the area, especially in the inland forest.

Despite the *adat* community still believes the mystical values as described above, the *adat* community actually practice the modern values in their relation with the forest and environment. As people who live inside the forest, the *adat* community do understand their dependency with the forest and its environment and have a close relation with it. They lived scattered near the river, with around 75% of the households rely on forest related activities to make a living such as: planting rubbers, fruits or rattans, mining the gold in the river, or hunting the animals. The understandings of forest dependency are well reflected by the Muluy elder, as he said:

We rely on the forest for our revenue even for medicines. I think the last one is the important one. We rely on the forest to save a life. We use roots, herb, or leaves to cure our diseases or illness. So far, it works well on our body
(Interview excerpt A4 #64)

In relation with the environment, the *adat* community has advance views on it. The awareness about the environmental issues has started when they have realized that their harvests are decreasing in quantity. In the past, they planted four cans of rice seeds to get the harvests for a year stock, now they only get the harvest for a half year stock. Then, they also have observed that climate has been changing. The rain begins to be irregular. Usually in August they have a hot temperature so the fruits can bloom, and flowerings, so they will have good mangos in October. Nowadays, the fruits already started flowering in October. This small observation makes them believe that they should not destroy the forest otherwise the climate will affect them. The elders forbid the people for cutting woods irresponsibly in order to preserve, maintain, and conserve the forest, because the destruction of forest will affect their life. Deforestation has an obvious impact to their life. For them, it is better to do anything else instead of destroying the forest. They never plant oil palms to prevent them and people downstream from water shortcomings. They always want to keep the environment by not open the old-growth forests for many years. This altruism behaviour of the *adat* community cannot be detached from their openness characteristic. Paser people are well-known for their openness and never refuse the arrival of other tribes. The *Adat* Paser has a good history in interacting with the other tribes and living in harmony with them. It can be seen in Swan Lutung where Paser people live with their neighbour from Banjar, Java and Batak. In Swan Lutung, they do not practice their tradition rituals because they respect the other community.

In the following, we will highlight shifting cultivation practices of the *adat* community.

5.2.2. The Shifting Cultivation Practice

The geographical location of the villages of the *Adat* Paser could have been distant from the city centre of the municipality, made the villages have a limited interaction with the outside world. Locating in the hilly areas around Gunung Lumut, the villages only can be reached through many kilos of hilly stone and mud roads. The nearest village from the city center of Batu Kajang is Rantau Buta with around 50 kilo meters

in the distance. It is needed around 200 kilo meters of driving to reach Swan Lutung. This situation make the *adat* villages are functionally secluded.

This close hereditary connection could have been portrayed by the tiny population of the villages. Rantau Buta has 37 households that live in 165 square kilometres of land, while Rantau Layung has 57 households that live in 189 square kilometres of land. Muluy and Swan Lutung share 496 square kilometres of land to be lived by 214 households (BPS, 2013a, 2013b). This facts make the villagers are never afraid of land shortcomings for the shifting cultivation practice.

Every single year the *adat* community can open one or two hectares of forest land for a new field even though there is no standard how much land they should open. The number reflects the average amount of a single household can open the land, as the elder of Rantau Layung and Muluy said:

Here, we don't count how wide the field but how strength we are in opening forest. So, in average no one can open more than one hectare (Interview excerpt A3 #152)

Then we start to cut the forest as wide as we can. It depends on how strong we are. In average, we only open one hectare or one hectare and half for each of us. It is very rare to open more than that, we know our capabilities to care the fields ((Interview excerpt A4 #145)

Usually, the shifting cultivation is started the end of dry season, so the land will be ready when the rain comes. The rain is important factor because the shifting cultivation is a non-irrigation farming. The shifting cultivation process is begun with the village meeting. This meeting itself is a consultation between the people who want to cultivate the land and the *adat* elders. The consultation is about the location of land where the field will be opened. Also, they discuss whether they will cultivate in one place or scattered location. In this meeting, furthermore, they also make clear the land status and boundary. There must be a consentience about 'which land belong to whom'. After all matters have been settled in the meeting, the people will go directly to the location for some surveys. They will assess the suitability of the soil for growing rice or other plants like bananas, cassava, all kinds of it. Then they return to the village and look for a good day to open the field, for instance, it always be Tuesday in Muluy.

Cutting shrubs, small branch and twigs are the first job of land clearing in 'the selected good day'. After this jobs have been done, they abandon the field for weeks. The shrubs, branches, and twigs now are withered, so it makes easy to enter the field. A few weeks later, the people continue work by cutting woods or logging then abandon the field again for a month. They wait for leaves, shrubs, twigs and woods are dried by the weather, and the burn it. The main reason of burning the field is to get fertile soils to plant rice. As results, the land has been cleared and the soil are ready to be ploughed. In the first time, they cultivate short life plants like vegetables for three months and followed by food crops such as rice and corns for six months. The cultivation of rice and corn marks out the end of the first year cultivation activities.

In the second year, they continue to plant rice again but this time it is a little bit different. They starts to plant rubber trees or fruits on the side lines of rice. So, the fruits and rubber trees also can consume the rain water that they use to grow rice until their roots are strong. Usually, they plant rice twice during the second year. After the second harvest, they start to move to another place and doing the similar process. They have to move because of some reasons as said by the elder of Rantau Layung and Rantau Buta.

We do it for two years, then we move to another place to do the similar practice again. We cannot use the land because the plants have grown. It is not possible to burn it down whereas we need to burn it down to make the soil fertile. (Interview excerpts A3 #151)

Besides, it is not a good practice to cultivate rice with the rubber plants because it is easily distracted by pests. So it had better for us to move to another place. (Interview excerpts A2 #149)

The land now are abandoned with rubber trees and fruits. The people will only visit the land occasionally to maintain the rubber plants and fruits from wild shrubs and grasses. In this point, there is always a sceptical question what if the land run out because the *adat* people are always seeking for new land. Actually, the *adat* people are never afraid of land shortcomings since they only have a little population. They also make an area delineation and a rotation system. In Muluy, people only use 3,000 hectares of land to be cultivated by 31 households. The rotation period is also quite long as said by the elder of Muluy:

We only make the rotation within these three thousand hectares. For example, after 2013, we will go back to our 80's fields. But we will do it selectively. If the land have grown fruit trees, we will not cut it. It will be left as a forest. Maybe, we will use our 2010 land for rice. We have many fruits trees there, and rattans (Interview excerpt A4 #146)

Furthermore, there is always a curiosity about the *adat* people does for living and does it make them lives in a decent life? So we will investigate the welfare of the *adat* people and how it interacts with other people to achieve it in the next section.

5.2.3. The Welfare of the Adat People

When it comes to terms of the wealth condition of the *adat* people, this research associated it with how much revenue the *adat* people have gotten from the managing the forest resources. The way the *adat* make for a living now has been changing. There are trends that showed the *adat* people have to face the modernity. Even though the four villages where the *adat* people live remain as traditional villages, some of the *adat* villages in the Paser Municipality now has become a small towns, for example Batu Kajang. The cause of change is because of interactions with big plantation or mining companies which are doing businesses in their area. It has made the *adat* people to do another occupations instead of only doing forest related jobs. In these areas, the *adat* people do business like catering, room rentals or retails to meet the need of company employees. They also has adopted how the companies manage their plantations. In the household level, there is also a trend to change the way the *adat* manage the forest, as said by the chairman of LAS:

In the past, they really relied on the forest, but now it is changing. They are now opened to do another business. As I observed, people who only rely on the forest for living, they cannot have a good life. Our ancestor said that the forest curses on them because they cut the rattan. The money from cutting rattan only last until the rattan gets withered. It means the money will be finished within a week. So, they have to combine with another business like plantations or mining. (Interview Excerpt A1 #86)

It also turned out that if the *adat* people only rely on collecting forest products such as cutting wild rattans, hunting animals or seeking exotic woods, they will not be able to afford the basic needs like clothes. The elder of Swan Lutung said:

If we only rely on seeking *gaharu* woods, for example, we cannot make it for living. Too much of uncertainty. Sometimes we can get 30 million in a week, but in another time we don't get any money at all. We need another job, which is the reason why we are now serious to do the rubber plantation. (Interview excerpt A5 #24)

As a result, the *adat* people start to do rubber plantation instead of only seeking rattans, *gaharu* woods, or hunting animals. Doing the rubber plantation has been admitted by the *adat* elders as the way to get wealthier. The only problem of doing rubber plantation is they only have to face the difficult period in the first five years when the rubbers are not productive yet. After that, they can easily get the money from extracting latexes and sell it to the bigger trader in Batu Kajang. From this business, they can afford many things like buying motorcycles and cars, satellite television, or building decent houses. They have access to piped water and have electric generators. In the case of affording an education, every village has its own story. People in Rantau Buta, Rantau Layung or Swan Lutung send their kids to the city for college education, while in Muluy, they do not really pay attention for the importance of college education.

Because of the prospective rubber plantations, most of the *adat* people do not want to go to seek another jobs. There is only a small number of *adat* people who do not rely on rubber plantations especially the young *adat* people who still eager to seek a new experience outside the village like working for a mining company or plantation company.

It has also appeared, in order to be wealthier the *adat* people has changed the way they do the shifting cultivation. They use a small modern machinery such as chainsaw to make their land clearing works faster. In the past, it took a month to clear one hectare of land, now they can do it only for days. The way the *adat* people grow rice is changing too. Nowadays, they grow many varieties of rice and fertilizer that introduced by the government in order to get higher crop yields. It is possible now to harvest the rice at least twice in a year. In the following we will elucidate how the *adat* community interacts with outsiders.

5.2.4. Interacting with the Outsiders

The outsiders came to Paser in two different ways either they came by their own will or the government brought them through the transmigration programme during 80's and 90's. However, only in Swan Lutung the outsiders came by the transmigration programme while the other three villages do not have them. During the interview I learned that they had defined the outsiders as people who stay in the village for days or weeks to do a work and people who permanently stay in their villages. For the first definition the *adat* people treat them as a guest, while for the second definition the *adat* people treat them as a part of the community. All the outsiders must ask for permission to the *adat* otherwise the *adat* will enforce the rule to them as said by the elder of Rantau Buta:

Anyone who works here, outsiders who have the capital, they have to involve the community. If they do not involve people, the *adat* will enforce the rule, they should get out of here. (Interview excerpt A2 #120)

The outsiders who live permanently in the villages do what the *adat* people do for living. They do farming, cultivation, or grow rattans. While, for the outsiders who temporary stay in the villages, they do logging, gold mining or hunting animals.

So far, the outsiders who lives in the four villages do not make any influences to the way the *adat* people live and work. The outsiders almost don't bring either positive or negative things. They follow the way of the *adat* people life. When the people plant rice, they follow to plant rice. They have assimilated with the *adat* people way of life so well. In the term of benefits, the *adat* people get the knowledge and experience

of agriculture or trading from the outsiders. Some of the outsiders are a handyman that helps the *adat* people to repair machine or drive the truck.

This fact is not in line with the general view about the influence of the outsider to the *adat* community in the municipal level. The chairman of LAS stated that the outsider have influenced the *adat* people in the way they wear clothes, or in the work diligence. The outsiders introduced the decent way to wear clothes and how to cultivate the land with a determination.

The next subsection will elaborate the population problem of the *adat* community

5.2.5. The Problem with Population

The problem of population was highlighted by the elder of Swan Lutung, Rantau Layung and Rantau Buta. In Swan Lutung there has been no outsiders living permanently since 1993, while in Rantau Layung they feel that they never run out the land because too less people are living in the village. The *adat* village has almost 900 square kilometres of land that are been living by less than 500 households. Moreover, the problem with population was well-described by the elder of Rantau Buta, as he said:

But since 1982 this village only has 25 household and 95 people in average. Even though, there are three graveyards with thousand tomb stones near the village, but our population always stays around 100 people. I think these graveyards are our ancestors. But why our population never increases? I think our ancestor leaves a legacy of 'lazy disease'. It make this village unfavourable. People easily gets bored. In fact, thousand people had lived here. I always instruct the people not to follow the family planning program. There are many young couple here with enough money to raise kids, but they don't have a kid after 10 years of marriage. Some classes in our school now are empty, because we don't have kids. Maybe, for the next three years, this school will be closed. If this situation remains, this village will not exist in the next 30 years. While, kids that we have sent to school in the city don't come back to this village. They get jobs out there, marry outsiders. It makes this situation worse. (Interview excerpt A2 #126)

The next section will discuss the customary rights awareness of the *adat* community based on the elder's opinion.

5.3. The Adat Community Understandings on Customary Rights

In 2012, the *adat* community had won during the legal trial against the Government of Indonesia in the Constitutional Court. The legal trial was proposed by the *adat* community in order to change some legal definitions in the Forestry Law 41 (2009), particularly the definition of *adat* forest. By the law the *adat* forest was 'the state forest within the *adat* community area', and it was changed to 'the forest within the *adat* community areas' ("Masyarakat Adat Menangi Gugatan di MK," 2014). Fortunately, the elder of Muluy was involved as a member of the litigant team in gaining this legal victory, as he said:

We sued the government in the constitutional court. I went to Jakarta for this. We wanted the government to recognize our right in the forest. We won in the court for this issue (Interview excerpt A4 #12)

This legal victory brings hopes to the *adat* community in the four villages. They want the government to return the *adat* right to use utmost the forest, recognize the *adat* forest boundary as drawn on their participatory map, and give more opportunities for the *adat* people to develop their capacity in managing the *adat* forest. However, the change of the *adat* forest definition does not mean anything if there is no *adat* law community (*masyarakat hukum adat*) as said by the chairman of the LAS. He said there will not be either customary communities or customary land without any customary laws. The existence of the *adat*

law community is a prerequisite for the *adat* community to be entitled customary rights and to possess the customary land. Indeed, there is a forest hold by a society for generations but the forest can freely be traded by the people. So, the forest basically is a private property of the *adat* member and not controlled by the *adat* laws. This means that the land may be sold as private land or individual properties, while communal land or customary land should not be traded. It can be used for generations and inherit it to their grandchildren to be cultivated but must not be possessed by individuals. The land must be treated as a common property of the *adat* community. In addition he advised to the *adat* community in Paser to prepare the *adat* laws in order to establish the *adat* law community. As he said:

There are no customary rights or customary land in Paser because there are no the *adat* law society. It is based on the research conducted by Hasanuddin University School of Law. The customary rights are only entitled to the *adat* that enacted their own laws. If there are criminals in the *adat* community, the *adat* should punish criminals by their laws instead of bring those criminals to the police. If somebody has been caught for stealing a chicken in the *adat* community, this person must be punished with the *adat* law. This kind of society does not exist in Paser, so there are no communities that have customary rights (Interview excerpt A1 #95).

According to those answer, it can be bottom lined that the absence of the *adat* law community has made the customary rights cannot be entitled to any *adat* group in Paser formally. However, I found interesting evidences of the customary rights understanding and *adat* law practices as if the *adat* community has established an *adat* law community. When I asked about the definition of customary rights, the elders of the *adat* defined the customary rights as a right to use the land of the forest in their region and treat the land as a common property of the *adat*. The land should be returned to the *adat* if the people have finished using it. Furthermore, some of the villages have practiced the *adat* land as a common property of the *adat*. In Rantau Layung they have a piece of land across the river that is managed as the *adat* forest. They cannot cultivate as well as cut trees inside the *adat* forest. They can only pick up the fruits from trees and collecting latexes from wild rubber plants. This fact was highlighted by the elder of Rantau Buta as he said:

Before we were born, the land were already there. We only possess the crops on the surface not the land (Interview excerpt A2 #37).

Even though later they elaborated the customary rights in rather vague ways, at least, there are some points that can be highlighted according to their opinion, such as (1) the customary rights does exist and entitled to the *adat* community but the *adat* should follow the state rules in the way of utilizing it; (2) all the *adat* member have an equal right to use the land that belong to the *adat* community; and (3) the *adat* land has certain boundaries that have been told over generations in which the *adat* community entitles to it.

At this point, the elders have opinions that the customary rights are always related to the use of land in the forest area. In relation with the right to use the land, the *adat* people mostly understand that the forest land cannot be possessed as individual properties although they inherit the land from their parents and grandparents. The forest land is a common property that can be used and opened by every person in the *adat* community as long as they make a meeting first with the *adat* chief. They understand that they do not have a right to make the land certificate. So if they want to sell the land, they only sell the leasehold of the land. Instead of the land certificate, they used to make a letter of agreement for selling and purchasing land. They also understand quite well that some of the forest are belong to the forest cultivation area. Meaning, they know some restriction in the forest, as said:

But sometimes, their land belong to the protection forest or the forest cultivation area. These land cannot be traded because it is forbidden by the law. They can only hunt certain animals in the protection forest, or steal the wood from the forest, but they will be arrested if they were caught by the forest ranger. Those illegal logs will be seizure by the government. (Interview excerpt A1 #142)

For the *adat* law practices, the elder of Rantau Buta gave explanations with examples. First example is in the case of fishing or making dams in the river. The *adat* community will give fines to anyone who uses any chemical material to poise fishes as well as anyone who makes a dam in the river. The *adat* will not bring the violating person to the police. Second, the *adat* will give fines to anyone who harvest woods in the *adat* forest without any permission. Third, the *adat* community make a clear agreement between the people before opening land in the forest to prevent conflicts between families, and ensure that everybody has an equal right in using the land and harvests. For the outsiders who want to do a business in the *adat* area, they must make agreement with the *adat* community beforehand and must obey the agreement without any exceptions.

Somehow, the *adat* community also has the problem concerning the land possession. Nowadays, some people are forget that the land are belong to the family on behalf of the *adat*. They want to sell it as individual properties. They assume that the land are belong to them because they inherit it from their parents. They do not know that their parents are only land borrowers. The parents had made an agreement with the *adat* that they will return the land to the *adat* if they have finished using the land, and the land will not be sold as individual properties. Subsequently, it will be an elaborating section on integrating customary rights into spatial planning.

5.4. Integrating Customary Rights into Spatial Planning

As stated in section 2.4, spatial planning process in Indonesia should involve the public participation particularly the *adat* community. The *adat* community has a right to utilize forest area with some limitations as mentioned in the zoning regulations for protected forest areas and national parks areas. Bringing this legal summary to the *adat* community, I tried to investigate how the *adat* community understands spatial planning.

Actually, the *adat* people has the experience how to use the space based on the spatial capacity. People in Muluy even can delineate the forest area into several type of spatial uses. For example, they participatory delineate 3,000 hectares of forest land to be the area of cultivation and leave the rest of forest land as a conservation area as seen in Figure 13.



Figure 13 The *adat* participatory map

This practical example leads to their understanding about spatial planning. In their own words, they described spatial planning as a spatial distribution of activity or an area grouping of development activity. In the case of their forest areas, spatial planning divides the areas into specific uses, for example cultivation areas and hunting areas. Spatial planning is also a matter of area delineation within certain boundaries. The boundaries define which areas either have to be preserved or to be cultivated even though they are aware there is unclear explanations about the boundaries from the municipal government. Only people in Muluy have understood about the boundaries since they are very active in inventorying their forest asset, as said:

Spatial planning divides the area into special uses. There are some part of the area that we cannot use it. Some areas also have specific uses, like areas for cultivation or hunting. It is not difficult to do it here, we already delineate our cultivation area within the three thousand hectares. We preserve these land together, except for Gunung Lumut, we cannot use it at all, and it must not be destroyed. (Interview excerpt A4 #46)

When the interview went to the topic how customary rights should be adopted in spatial planning as stated by the law, the elders did not really know but they were certain about the importance of adopting the customary rights into spatial planning. Later, they explained that they only know if there is an area where they cannot hunt animals. They have heard about a new plan to accommodate the *adat* people especially those who live near the upstream of river though they cannot provide the information in details.

Even though the *adat* people are certain about the importance of adopting the customary rights into spatial planning, they are not so sure with the benefits of involvement in spatial planning process. They have explained in rather uncertain ways about the benefits of involvement in spatial planning. According to them, the unconvinced understanding about the benefit to be involved in spatial planning process is merely because the municipal government only gives them a brief explanation about how they should play their role in spatial planning process. Whereas, if the municipal government gives them opportunities to be involved in spatial planning, they can give feedbacks from the *adat* point of view to spatial planning. However, the problem is the *adat* community are never invited directly to spatial planning process held by the municipal government. The municipal government do invites the *adat* community to the general meeting instead of spatial planning process meeting. This situation make the *adat* community do understand about the general development issues such as budgeting the infrastructure development, developing the micro hydro generator, or building roads but their understanding of involvement in spatial planning is limited. They do not understand that by the law they have the right to involve in spatial

planning process. Moreover, it turned out that they do not really care about the involvement in spatial planning because they think spatial planning is the government issues.

In general, the municipal government always respect the *adat*. The municipal government frequently invites the elders of *adat* to attend ceremonial events and listen to the *adat* elder opinion except spatial planning issues. The *adat* people also appreciate when the municipal government has decided to use the Paser term instead of Pasir. They think it is important for claiming their identity, beside Pasir literally means the sand that sounds insulting them. They also appreciate how the government has built their settlement and protecting their plantation business by enacting certain rules that force the big company to buy their plantation product. The *adat* community only concerns about the mining concession permit. They feel the government never let them to involve in giving permits to the investor. They are annoyed when suddenly people from Jakarta plant their mining business near the *adat* region without any permission to them.

In term of utilizing the forest area with some limitations as mentioned in the zoning regulations of spatial planning, the *adat* community is only aware a little about the restrictions. They certainly understand that they cannot cut trees in certain areas of the forest otherwise the government arrests them. They do not really understand to what extent this rule applies because there is no clear explanation about the boundary of the forest from the government. Moreover, they have opinions that spatial planning will help them to preserve the forest. They believe if spatial planning is a mess then it would be difficult to preserve the forest. The next section will give some remarks regarding to the *adat* customary rights awareness in spatial planning.

5.5. Categorizing Interview Excerpts

This section is dedicated to elaborate the categorizing results of interview excerpts that have been written in section 5.2, 5.3, and 5.4. Interview excerpts are classified into five categories as follow.

5.5.1. Relation

The category relationship defines beliefs, daily practices and behaviours of the *adat* community in relation with the forest. The basic relationship between the *adat* people and the forest is reflected by the *adat* people belief on mythology. They believe that their ancestors are ghosts who live on the ground and the sky. According to this belief, the *adat* people always do rituals before they open the field inside the forest. The *adat* people make statues as exchanges to the spirit for woods that they cut. The *adat* people also believes in omens particularly when they do the first cut of land clearance. If there are anything stuck in their cutting equipment, they delay their work until next days.

The *adat* people understand that their life is dependent to the forest. They rely on the forest for revenues, so they learn that anything change in the forest will affect their life. They have learned that deforestation makes the climate irregular and decreasing their fruit harvest. In this sense, the elders forbid the people for cutting woods irresponsibly in order to preserve, maintain, and conserve the forest. They have the altruism behaviour in which reflected on how they refuse to plant oil palms to preserve the water for the people downstream.

The *adat* people are well-known for their openness and never refuse the arrival of other tribes. In interacting with outsiders, the *adat* people have two interaction types. For outsiders who stay in the village for a short period, the *adat* people treat them as guests and apply strict rules particularly if outsiders have intentions to do business near the village. Outsiders must involve the *adat* people in their business.

Meanwhile for outsiders who live permanently in the village, the *adat* treat them as a part of community. So far, people of the four villages are barely influenced by the outsiders. In contrary, outsiders adapt with the *adat* people practices and behaviours.

The *adat* community lives on very wide areas within the forest and never afraid of land shortcomings to practice the shifting cultivation. The process of shifting cultivation starts on the end of dry season. People will hold a meeting with the elders to discuss the location of shifting cultivation and make clear land status and boundary. There must be a consentience about 'which land belong to whom'. Then they will check the land suitability for cultivation within the selected location. People will use the land for two years. After that they will leave the land with perennials such as rubbers or fruits and seek another location. The rotation of shifting cultivation is around 20 years, it means the *adat* people will use the location again in the next 20 years.

5.5.2. Welfare

The category welfare defines the welfare condition of the *adat* community. It reveals that the *adat* community face the modernity. Even though the four villages remain as traditional villages, some other *adat* villages in Pasir Municipality now has become small towns due to interactions with big companies that doing business near their village. However the behaviour of *adat* people in managing forest is also changing. Nowadays, the *adat* people do not merely rely on forest to make a living, they do rubbers plantation to improve their quality of life financially. Because of the prosperity of rubber plantation, only few people have left the village to seek another jobs. The *adat* people also start to use modern machineries to do plantations. The thread to the *adat* community welfare is coming the decreasing population. The *adat* people are afraid of their extinction in the next 30 years if the population trend remains similar like nowadays.

5.5.3. Understandings

The category understandings defines the understanding of the *adat* community about the customary right in spatial planning. The *adat* community understands customary rights in incomplete ways rather than comprehensive. They understand that by holding customary rights they have rights for using forest. However they do not concern about prerequisite to be entitled customary rights. The *adat* community is eligible to have customary rights if they are also an *adat* law community in which this kind of community does not exist formally in Paser. An *adat* law community defines as an *adat* community that who has and enacts their own law.

However it turns out that the *adat* community in four villages practice their own rules. Even though the practice is not recognized by the formal law yet, the *adat* community apply *adat* rules in land possession. Land are common properties of the people. The land should be returned to the *adat* if people have used it. They also have the *adat* forest where people are only allowed collecting fruits and latexes but it is forbidden to cut trees.

The *adat* community understands that the customary rights does exist and entitled to the *adat* community but the *adat* should follow the state rules in the way of utilizing it. They know that all the *adat* member have an equal right to use the land that belong to the *adat* community. The *adat* land are the land within certain boundaries that have been told over generations. This land cannot be traded except only for its leasehold.

5.5.4. Involvements

The category involvements defines the adat community views about their involvement in spatial planning. It turns out that the *adat* community are never invited to involve in spatial planning process held by the municipal government. Whereas the *adat* community has an experience how to use the space based on the spatial capacity. They know that spatial planning is a matter of spatial distribution of activities. They had delineated the forest areas into several type of spatial uses through their own participatory planning. They had divided the forest areas into cultivated and non-cultivated areas based their indigenous knowledge. Hence the *adat* community are certain about the importance of adopting customary rights into spatial planning. They are sure if they are given the opportunity to involve in spatial planning, they can give feedbacks from the *adat* point of view. However the municipal only gives them a brief explanation about spatial planning and never invites them to involve in spatial planning. The municipal government only invites them for all matters except spatial planning. So the *adat* community has limited understandings about spatial planning and its benefit. The *adat* community does not know that by law they have rights to involve in spatial planning. As consequences, the *adat* community only have a limited understanding about restrictions in using forest as mandated by zoning regulation of spatial planning. They know they cannot cut trees in certain areas within the forest but they never know the legal reason of this restriction. They also never know the legal reason why there are investors with concession right using forest areas.

5.6. Conclusion

After a description about the *Adat Paser*, their customary rights understanding and their involvement in spatial planning above, now this research is able to answer the second research question. The *adat* community is aware of what customary rights are and the importance of adopting customary practice into spatial planning. However they do not really understand how to relate customary rights and spatial planning because they are never invited by the municipal government to involve in spatial planning process. The municipal government also does not give them sufficient information about spatial planning.

6. THE ADAT COMMUNITY INVOLVEMENT IN SPATIAL PLANNING AND THEIR PRACTICES IN FOREST MANAGEMENT

6.1. Introduction

This chapter is dedicated to elaborate the *adat* community involvement in spatial planning and their practices in forest management. The chapter starts with the section of dealing with the negative cases. Here the section tries to explain what really happened with the research assumption after getting findings from the data. Then, the research continues to analysis assessment sections guided by indicators that have been formulated in section 1.6.3.

This chapter is crucial for this research because it contains ‘theory’ that derived from coding and categorizing in two previous sections. This chapter will be closed by a final section which contains the grounded theory of this research.

6.2. Dealing with Negative Cases

According to Patton (1987) negative cases refers to cases that do not fit the pattern. In the beginning, this research proposed to explore the effect of the awareness of the customary right in spatial planning to the effectiveness of forest management as the third research question. At this point this research proposed to undertake an assessment for measuring the effectiveness of forest management due to the *adat* community involvement in spatial planning. The assumption here was, if the *adat* community is involved in spatial planning process, it will affect the effectiveness of forest management. However things are happened somewhat different from the beginning assumption. According to the finding in two previous chapters, it reveals two major findings that in contrary with the beginning assumption. In the real situation, the *adat* community does not involve directly in spatial planning but the *adat* community indicates a good practice in forest management. Therefore the research assumption is invalid.

In this sense this research offers to use the flexibility of mix methods approach. Because the quantitative approach with assumption and testing indicators as described in section 1.6 is difficult to be applied, now this research proposes to use the qualitative approach of grounded theory method. By using the grounded theory method, basically this research has changed its track. Once this research was designed to test the assumption that the *adat* involvement in spatial planning will affect the effectiveness of forest management by using certain testing indicators, now this research aims to develop hypothesis or grounded theory as the research result.

Indeed it influences on how this research will elaborate the assessment of effectiveness of forest management by using sustainability values as indicators. Here this research proposes to make a new utilization of sustainability indicators as formulated in section 1.6.3. In this case, indicators are used as tools to enrich the formulation process of grounded theory rather than testing indicators. The equity indicator will be solely used to help in formulating the grounded theory of *adat* community involvement in spatial planning. While the other indicators will be used to assist the development of the grounded theory of adat community practice in forest management.

6.3. Analysing the *Adat* Community Involvement in Spatial Planning Process

This section explains the further analysis of the *adat* community involvement in spatial planning by using the categorized interview excerpts from two previous chapters. The analysis is guided by the indicator equity from section 1.6.3 which has three dimension which are recipients, items and process. The recipient dimension refers to the eligibility of the *adat* community to be involved in spatial planning process. To recognize who are the eligible *adat* people, government officials explained some hints to refer them. The *adat* people usually live in a village, and have a similar physical characteristic because of their hereditary closeness. The *adat* people practice the shifting cultivation as their distinct characteristic, and they do protect the environment based on their indigenous knowledge, for example they use fire breaker to isolate fires when they open the forest. In spatial planning, the eligibility of *adat* community to involve is assured by the Regent Regulation 87 (2009) as one of stakeholder. In this sense, the *adat* community is recognizable and has eligibility to involve in spatial planning.

The second dimension of equity is items that refer to the ability of *adat* community to understand and define rights in both spatial planning and forest management. Based on findings described in Section 5.5, the *adat* community can define what their rights in using the forest particularly related to their customary rights. However they do not understand the legal prerequisite of customary rights entitlement which is the existence of *adat* law community. Hence none of *adat* community in Paser Municipality holds customary rights even though informally the *adat* community applies the *adat* rules. They apply strict rules on land possession. For their rights in spatial planning, they cannot really understand their right in spatial planning because the municipal government only gives them brief information of spatial planning. So they do not know that by law they have rights to involve in spatial planning. Although they are so sure about the importance of adopting customary rights in spatial planning.

The dimension of process refers to the *adat* community are involved in spatial planning and feeling satisfied in following the process. In facts, the *adat* community does not involve in spatial planning because the municipal government never invites them to join spatial planning process. Even though the *adat* community does not involve in spatial planning, the current spatial planning stakeholder concern with the *adat* issue and consider it as a delicate issue. So far, their role in spatial planning is represented by DISHUTAMBEN. DISHUTAMBEN takes over all matter related to the *adat* community in spatial planning. Reasons behind the non-involvement of the *adat* community are vary but the most highlighted reasons are the *adat* community is getting critical about transparency of policy and there are prejudice against the *adat* community amongst the municipal government officials. Up to now, *adat* community participations are only limited to the issue of forest boundary or another development issues. Whereas the *adat* community has an experience how to use space based on spatial capacity. They have participatory maps which delineate their forest into two type of use which are cultivation and non-cultivation areas. According to the practice on spatial planning procedure, the municipal government does not emphasize the *adat* involvement as an issue of spatial planning. The municipal government only emphasizes issues related to Ministry of Forestry approval for converting forest land. In this sense, the *adat* community involvement in spatial planning is not the priority of municipal government.

Because the *adat* community does not involves in spatial planning so it is not possible for them to say whether they are satisfied or not. At this point, it is obvious that the current spatial planning process does not promote the equity value especially for the *adat* community. The *adat* community does not involve in spatial planning because they are not treated equally as stakeholder of spatial planning. There is no evidence that BKPRD as coordination board has made efforts to invite the *adat* community to join spatial planning process.

6.4. Analysing the Adat Community Practice on Forest Management

This section explains the further analysis of the *adat* community practice in forest management by using the categorized interview excerpts from two previous chapters. The analysis is assisted by sustainability indicators from section 1.6.3 which are sufficiency and opportunity, democracy and civility and biodiversity. The analysis will be presented as follow.

6.4.1. Principle of Sufficiency and Opportunity within the Adat Community

This subsection has an objective to analyse the implementation of principle of sufficiency and opportunity within the *adat* community by using sufficiency and opportunity criteria. Sufficiency refers to the fact that the *adat* get benefits from the forest to meet their basic needs, in the same time they that prevent the forest resources from being exhausted. In practice, it refers to the welfare of the *adat* community and how they sustain their welfare. Based on findings in section 5.5, the *adat* people have a decent life and start to do the rubber plantation to sustain their welfare. The rubber plantation has become the reliable income resource of many *adat* families. The *adat* community life nowadays is also relatively stable from the influence of outsiders. The significant influence from outsiders only happened in the 90's when there was a transmigration program. To sustain their welfare, the *adat* community also begin to make their own spatial planning. They have delineated a certain location in the forest that they exclusively use it as cultivation area, and they leave the rest of land as forest or conservation area. Even though they do not limit how much land can be opened every single, the *adat* community refers to the capacity of each household in opening land. In average the capacity of each household in opening land never exceeds 2 hectares in one year. Therefore the *adat* community is relatively economical in using forest land because the number of household is also small. The only factor that threatens the *adat* people sustainability is the decreasing population in which they do not have a solution.

To create equal opportunity among *adat* people, the *adat* community practice a certain practice that ensures solidarity among them solid. They always have a meeting before opening the cultivation field. During the meeting they make clear all matters related with 'which land belong to whom'. They always emphasize to have consentiences among *adat* people particularly in land possession. They also treat the land as a common property so that everybody can use it, but they cannot keep the land for themselves.

At this point, it is possible to say that the *adat* community implements the sufficiency and opportunity principle in their daily practice. They are able to get welfare from the forest by planting rubbers and preserves the forest from over exploitation by applying certain practices such as delineating the cultivation area. They also maintained the solidarity in order to ensure that everybody has an equal opportunity to enhance their quality of life.

6.4.2. Applying the Principle of Democracy and Civility

The democracy and civility indicators implies the values of voluntary in applying the principles of sustainability through a legitimate system of governance. In the case of *adat* community, the implementation of this principle can be seen on how the *adat* community applies the *adat* law. The *adat* has legitimacy to enforce the *adat* law, for example prohibiting a dam development in order to protect rivers. In other case, the people obey the elder's order to not cut woods irresponsibly but to preserve the forest. There is no evidence that the people have objection to these rules. Even better, the people think that doing something else is much better than destroying the forest.

In this sense, the *adat* community implicitly has a legitimate authority system that enforce the *adat* law in protecting nature. This authority is led by *adat* elders in whom people obey the decision with civility. Meaning that the *adat* community implements the democracy and civility principle through the legitimate authority system led by *adat* elders in practice.

6.4.3. Maintaining the Biodiversity

As described in section 1.6.3, the *adat* community is assumed implementing biodiversity value if the *adat* community practice a sustainable behaviour in how to exploit land within forest and maintains the number of forest areas. Based on findings in Chapter 5, the *adat* people beliefs and values make them very respectful in managing forest. They are very selective in cutting trees because they believe trees belong to spirits. The most obvious sustainable behaviour is shown by the shifting cultivation practice. The *adat* shifting cultivation is sustainable because the rotation period is quite long approximately 20 years. Also, the *adat* community is very selective with the plant varieties. They prefer to plant perennials than oil palms. The *adat* people also have maintained the number of forest within time period of 2001 until 2013. The number of forest is increased over this period. It can be seen in the change detection result map in Figure 14, Figure 15 and Figure 16. It can be said that the *adat* community has maintained the biodiversity by preserve the forest coverage.

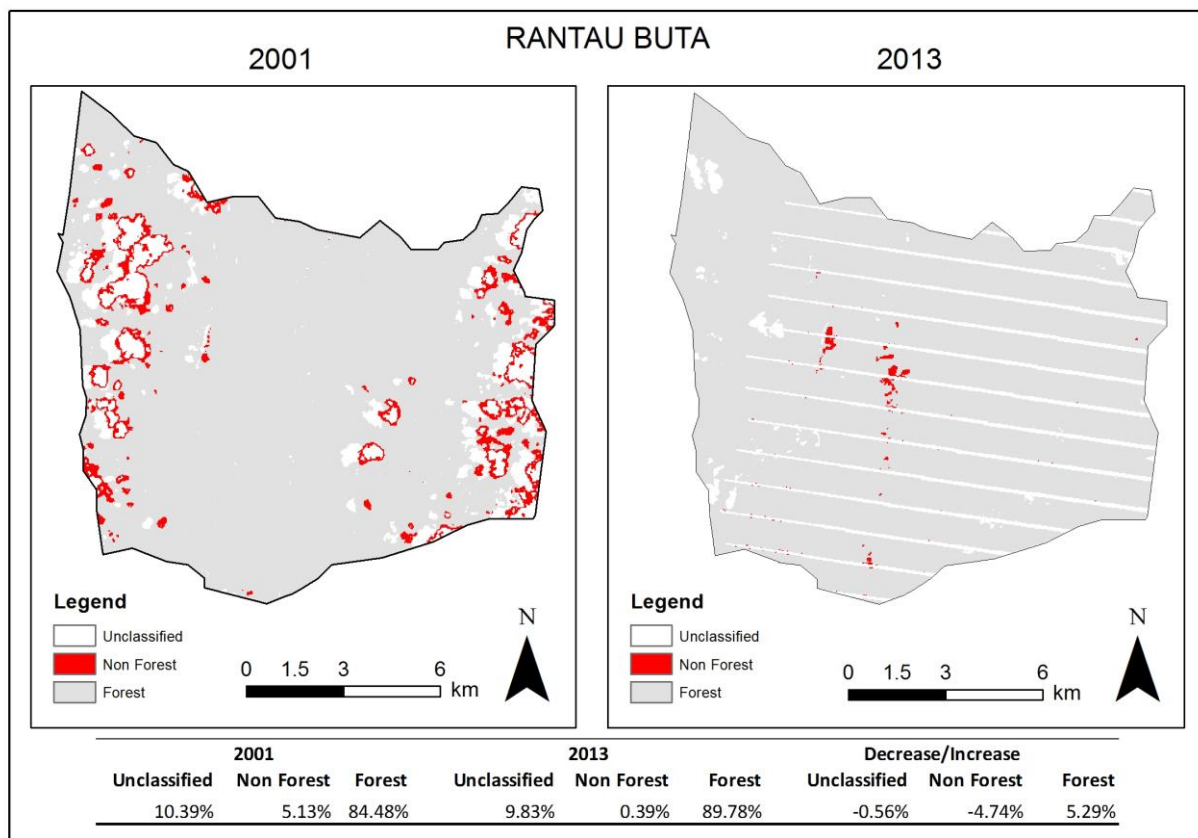


Figure 14 Change detection result map of Rantau Buta

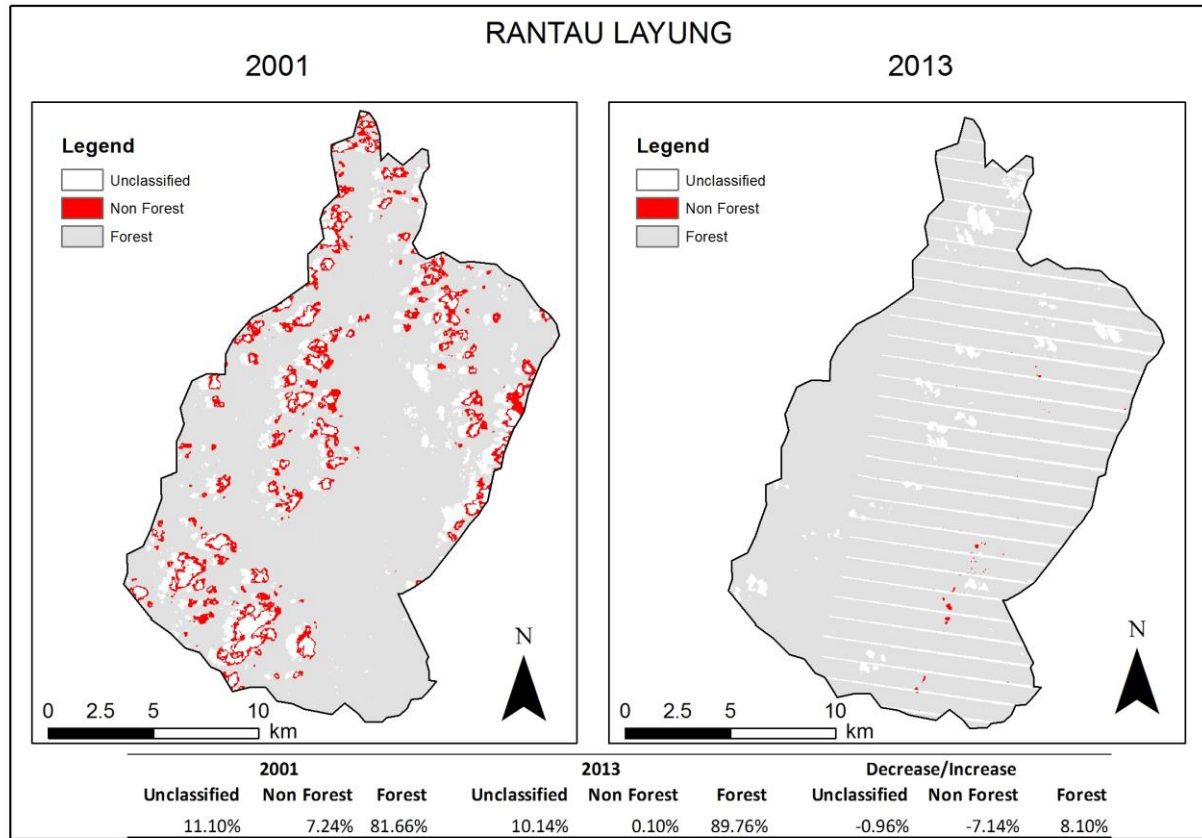


Figure 15 Change detection result map of Rantau Layung

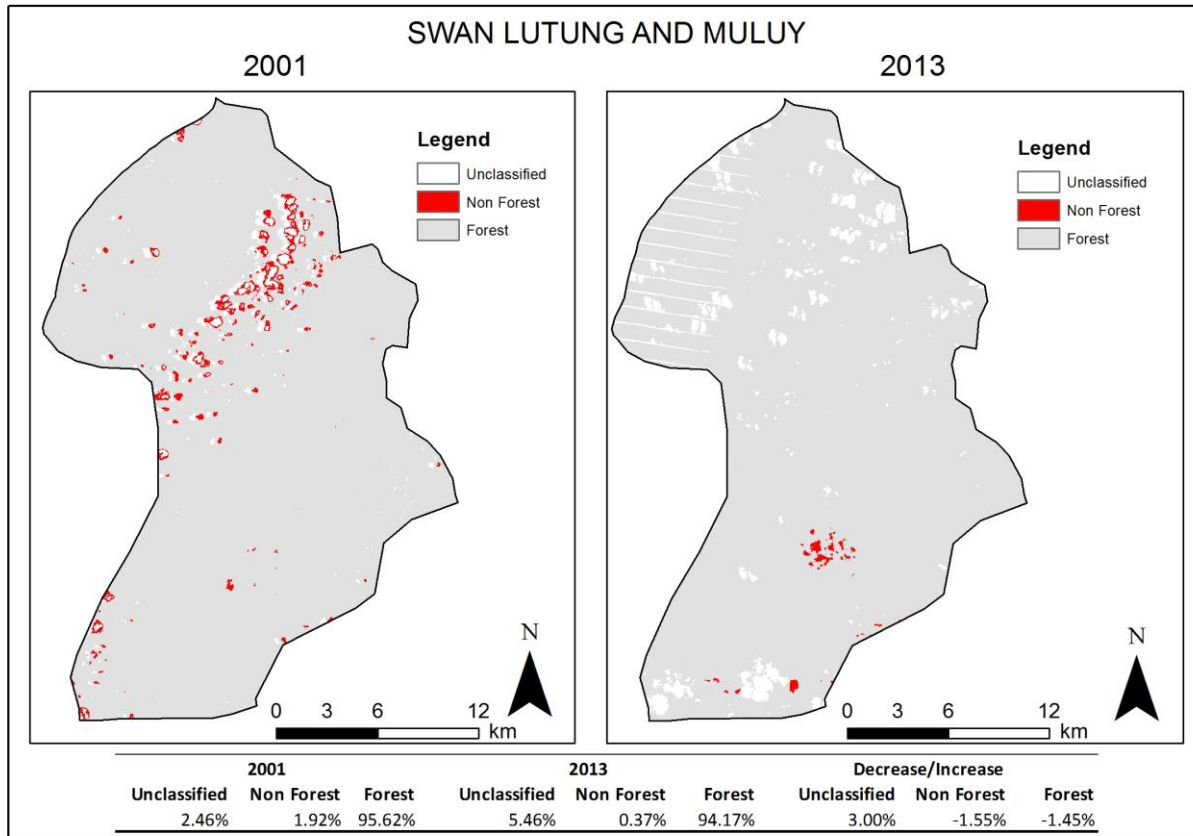


Figure 16 Change detection result map of Swan Lutung and Muluy

6.5. Developing Grounded Theories

In this section, this research comes to the end of qualitative inquiry embedded in grounded theory. Based on previous explanations, the *adat* community is not involved in spatial planning but they undertake the implementation of sustainability principles in their daily practice. Hence this research intends to formulate two grounded theories as follows.

Inequity of spatial planning process to the *adat* community: The current spatial planning process aims to involve the *adat* community equally as one of the stakeholder, and the *adat* community is eligible to be involved. However this objective has not been achieved yet because there is no will of the municipal government to invite the *adat* community. So, the *adat* community does not have accesses to get any information in spatial planning process. Spatial planning process is not working well as mandated in the regulation. The municipal government is too concerned about the issue of forest land conversion as a top priority and neglecting the important of stakeholder consentience as mandated by the regulation. Issues of forest land conversion are frequently repeated during the interview by municipal government officials as the top hindering factor in spatial planning process. Here the essence of participatory planning as mandated by spatial planning Law 26 (2007) is not implemented yet. Consequently, the current spatial planning process is not also able to promote the equity value among the stakeholders.

Sustainable forest management by the *adat* community: The *adat* community implements sustainability principles in forest management. They are used to get benefits from the forest, at the same time they are very careful in exploiting the forest. As result they can maintain the number of forest

coverage over the time. In implementing sustainability, the *adat* community has a legitimate authority system. This authority is led by elders to enforce the *adat* law in order to preserve nature.

6.6. Conclusion

It is concluded that this research is not able to answer the third research question due to the invalidity of research assumption. So this research has proposed to develop grounded theories instead of trying to answer the third research question. Grounded theories in this research were developed by analysing categorized interview excerpts from previous two chapters. Here indicators of sustainability were not used as testing indicators but utilized as tools to guide the analysis.

The analysis were divided into two parts. First part is the analysis of *adat* community involvement in spatial planning process by using equity indicator. It led to the grounded theory of inequity of spatial planning process to the *adat* community. Second part is the analysis of the *adat* community practice in forest management by using sufficiency and opportunity, democracy and civility and biodiversity indicators. It turned out the theory of sustainable forest management by the *adat* community.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1. Introduction

This chapter has an objective to provide conclusions and recommendations for further study. This chapter begins with the conclusions section and continues to recommendations sections as elaborated below.

7.2. Conclusions

As described in Chapter 1, this research aims to answer three major questions about the *adat* community involvement in spatial planning. Here this section has propose to provide the answer as follows.

How does the current spatial planning process work and involve the *adat* community?

The current spatial planning refers to the Government Regulation 15 (2010) and contain two consequence procedures which are the procedure of preparation and the procedure of establishment. According to the regulation, the *adat* community is the one of the stakeholder however they do not involve in spatial planning process.

Is the *adat* community aware of its customary right in spatial planning?

The *adat* community is aware of its customary right in spatial planning. They can define their customary rights and the importance of adopting customary rights in spatial planning. However they cannot provide understandings about how to use the customary rights in spatial planning in practice because they do not involve.

If a part of the *adat* community was aware of their customary right in spatial planning, did it affect the effectiveness of forest management?

Because the *adat* community does not involve in spatial planning, it is not possible to assess their effect of their involvement in spatial planning process. So the research propose the grounded theory method. By applying the grounded theory method, the research is able to develop two grounded theories which are (1) inequity of spatial planning process to the *adat* community and (2) sustainable forest management by the *adat* community.

7.3. Recommendations for Further Study

This research only investigates what the current spatial planning is and how it involves the *adat* community. This research does not provide in-depth analysis related to stakeholder participation in spatial planning. This stakeholder participation analysis can be chosen as a future topic of research.

The research only makes short reviews about spatial planning regulations whereas there are hundreds of regulation that can be reviewed to provide the legal framework review for spatial planning in Indonesia.

It is also possible to do a social research about the *adat* community and their behaviour to the space with more emphasizing on spatial ethnography aspects because this research only provide brief explanations about the *adat* practice in the forest space.

There are many possibilities to use more advanced geo-information technology such as using very high resolution images to explore the *adat* community practice in forest management.

And the most important, this research calls the future researcher to test grounded theories that were developed by this research.

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APPENDIX 1

PROFILE OF INTERVIEWEES

No	Interviewee ID	Institution	Position
1	L1	BAPPEDA	Officer of BKPRD Secretariat
2	L2	DISHUTAMBEN	Head of Forest Land Use Planning Division
3	L3	DISTANBUN	Head of Farming Estates Division
4	L4	DBMPTR	Head of Spatial Planning Section
5	L5	SETDA	Assisten Secretary of Economic and Development
6	A1	LAS	Chairman
7	A2	Rantau Buta	Elder
8	A3	Rantau Layung	Elder
9	A4	Muluy	Elder
10	A5	Swan Lutung	Elder

APPENDIX 2A

QUISTIONNAIRES FOR LOCAL GOVERNMENT OFFICER

This is a question sheet for research with title “Evaluating the Role of Adat Community Involvement in Spatial Planning: Does It Affect the Effectiveness of Forest Management?”. I, Oka Prastowo Raharjo, conduct this research in order to accomplish Master of Science programme in Geo-information Science and Earth Observation for Governance and Spatial Information Management, at Faculty of Geo-information Science and Earth Observation, University of Twente, the Netherlands. If you have questions, please contact me at o.p.raharjo@student.utwente.nl. Thank you in advance for your cooperation and the willingness to share the information.

A. Introduction

1. *Would you please introduce yourself?*

Name :

Workplace :

Job Position :

Education Level :

Phone Number :

Email :

Role in Local Spatial Planning Coordination Board?

.....

B. Spatial Planning Process in General

2. *When does Paser Municipality have the spatial planning? Is there a time frame? Each 4 years? Are there any consequences if they do not adhere to the law of spatial planning?*

3. *What is the standard procedure of municipal spatial planning making process in Paser Municipality? Is it based on central government regulation? How do you practice the standard? Do you make any modification with local context?*

4. *Who are the stakeholders in spatial planning process?*

5. *What interest do you have? And, also, what is your power?*

6. *And what existing roles do you play? Is the role really what you do expect? If no, please explain how it should be*

7. *What are the supporting factors for each stakeholder involvement? What do you mean with ‘supporting’? Is it just a legal context or socio cultural background?*

8. *What are the demotivating factors for your involvement? Demotivating for whom and what?*

9. *Statement: “Every stakeholder in spatial planning process has to give the respect and consider the adat customary right”. Do you agree/disagree/netral with this statement? Please, give a reason and a practical example.*

10. *Is the adat community being involved in the spatial planning process? If the answer is not, please continue to the question 11 and 12. If the answer is yes, please go on to the question 13 until 28*

11. *What are the main factors causing the adat community is not involved in spatial planning?*

12. *Are there any efforts from the local government to promote the adat community in spatial planning?*

C. The Adat Community and Spatial Planning

13. *Who is ‘the eligible adat community’ in spatial planning?*

14. *And, how do you select them? What criteria are used to make the adat community eligible? Is the criteria based on the central government? Or the local government has made it?*

15. *How does the adat community express their stand among the spatial planning stakeholder?*

16. *What effort (formal and informal way) has the government done to improve the adat community involvement?*

D. The Adat Customary Right and Spatial Planning

17. *Does the adat community understand about customary rights? What do you think about their understanding?*

18. *Does the adat community understand about the involvement right in spatial planning process? What do you think about their understanding?*
 19. *How is the adat community involved in the spatial planning? Indirectly, do you make any special treatment (e.g.: personal approach, public meeting) to involve them? Please give details how you do it!*
 20. *Are there any the adat related factors hindering the spatial planning process?*
 21. *What methods have the government been doing to involve the adat community? Formal methods (based regulation) or informal methods (informal visitation, ramah tamah, silaturahmi)?*
 22. *What are the positive achievement so far that the government has got from the adat community related to spatial planning?)*
 23. *Are there any conflicts in customary rights and spatial planning integration? What are the causes? And is the solution has been settled? If yes, what is the solution?*
 24. *Are there any practical examples of the adat community in spatial planning?*
 25. *What are the local values/wisdom being considered in the spatial planning? As a consequence of adat customary rights?*
- E. Conflicts of Interest in Forest Areas Caused by Customary Rights and Spatial Planning**
26. *Does the local government consider local values (tradition/ belief in using forest) in spatial planning?*
 27. *How does local government handle these conflicts of interest?*
 28. *Can you give examples of: 1. Conflict of interests, 2. Positive involvement of adat community, 3. Negative effects of involvement of adat?*

APPENDIX 2B

QUESTIONNAIRES FOR ADAT ELDERS

This is a question sheet for research with title "Evaluating the Role of Adat Community Involvement in Spatial Planning: Does It Affect the Effectiveness of Forest Management?". I, Oкта Prastowo Raharjo, conduct this research in order to accomplish Master of Science programme in Geo-information Science and Earth Observation for Governance and Spatial Information Management, at Faculty of Geo-information Science and Earth Observation, University of Twente, the Netherlands. If you have questions, please contact me at o.p.raharjo@student.utwente.nl. Thank you in advance for your cooperation and the willingness to share the information.

A. Introduction

1. Would you please introduce yourself?

Name :

Address :

Phone Number :

Role in the Adat Community

.....

B. Forest and the Adat Community

2. Would you tell the history of the forest use in your village?
3. Would you tell the values (norm, convention, or a tradition or belief or oral story in using forest land and plants, forestation and deforestation) that the adat believes in using forest?
4. What are values (discontinuing or strictly re-applying the tradition) changing on using the forest resources?
5. Is there anything that has been significantly changed in using the forest (i.e.: plant varieties, land preparation)?
6. Are there any outsiders coming and doing business near the village? What kind of business are they doing?
7. Did they ask your permission?
8. Have they affected the life of the adat? If yes, please continue to the question number 9 and so on, if no, please continue to the question number 13 and so on.
9. What are the positive and things brought by those outsiders?
10. What are the negative things brought by those outsiders?
11. Does the adat get benefits from the actions of those outsiders?
12. To what extent are the external activity affecting the adat community in term of forest management?
13. Do the adat people, in general, only rely on the forest to make living?
14. Do the adat people have other occupation apart from forest-related occupancy? Give examples please
15. Can the income from forest afford families to buy motor cycle or car? To send children to university? To buy rice and instant food from the city?
16. Do you know about the adat customary right? Who did tell you? When did it start?

C. Customary Rights and Spatial Planning

17. What is your own definition of customary rights and spatial planning?
18. Did you hear about the fact that by the law, the adat must be involved in spatial planning process?
19. To what extent, and how long ago do you know already about adat customary right in spatial planning?
20. Are you aware that there are benefits the adat community can get from being involved in spatial planning? If you aware, would you please tell what is it?
21. Are you aware of a rule of spatial planning law that restricts the adat community in their customary rights? If you aware, would you please tell what is it?
22. Did the local government invite you in the making of spatial planning? If yes, please continue to the question number 23 and so on, if no, please continue to the question number 26 and so on.
23. How did the local government invite you in the making of spatial planning?
24. Are you satisfied the way the local government invites you?
25. To what extent did your adat community participate in spatial planning process in the past? Meeting, public consultation, controls?
26. In your opinion, what is the most advantage and the most disadvantage regulation for the adat community?
27. Is there any item, or rule, that should be changed in adat customary right?

APPENDIX 3A

LIST OF CODES FROM LOCAL GOVERNMENT OFFICIALS INTERVIEWS

■ Code: Acceptance to restart the process

Quotation Nr: 1 Source: L1	Okay, it is no problem [for us], we are also aware of the many shortcomings of the technical side [within the regulation].
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■ Code: Adat community eligibility

Quotation Nr: 2 Source: L2	we cannot address [who] are the indigenous people like they are aliens [because they are close to us]. For example people who live in Kampung Muluy. They are recognized as the adat community of Kampung Muluy.
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■ Code: Adat involvement

Quotation Nr: 3 Source: L1	Not yet anyway. Usually [only the related] office [that] involved directly. We only accommodate what the Services get from the field. So actually there is an involvement but not a direct involvement with our agency. [They directly involve with] Forestry, Agriculture or Fisheries or Other Technical [These services] convey their [opinions and needs].
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Quotation Nr: 4 Source: L3	They do not involve.
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Quotation Nr: 5 Source: L4	They are not involved, because they are less intellect.
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Quotation Nr: 10 Source: L5	Not really involved. Mostly, the village government and village councils
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■ Code: Adat law practice

Quotation Nr: 11 Source: L2	they are producing honey wood, bengaris/merbau woods, if anyone outside of the community cut down it, they will get a fine. This person can be expelled from the village.
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■ Code: Adat practices in the forest

Quotation Nr: 12 Source: L1	In fact, the micro hydro generator pioneers are them. They got the funding from NGOs. Well, the inspiration is from there, so we try it because the Municipality of Paser experiences the electricity crisis. We try to learn from them, because we also have a tremendous potential of forests and waterfalls.
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Quotation Nr: 13 Source: L2	There is shifting cultivation patterns. They are still doing it. But, for instance this year they clear 50 hectares of land, then they live and cultivate here. After harvesting, they will leave and seek another areas. They think, in the next 2 year the fertility of the soil will back.
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Quotation Nr: 14 Source: L3	they already know when they want to burn the field, and they make the field surrounded by firebreaks [to isolate fires]. But they do not know the modern name firebreaks but they do practice it. This means that they already aware, what makes another [unnecessary] burning.
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■ Code: Adat understanding about involvement in spatial planning

Quotation Nr: 15 Source: L2	Regarding the spatial planning issues, which they certainly do not understand but, at least, they know they are entitled to [it]. Some of them know their forest boundaries
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■ Code: Adat village structure

Quotation Nr: 16 Source: L2	In the village like Kampung Muluy, they have the head of the village, traditional leaders and customary rights. They make their own coordination [system] between them. If the adat leader says no, [usually] the rest of them will also say no. [In some cases] the head of the village is the son of the adat leader. It happened there. It is still a family [business].
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■ Code: Adat wisdom on forest

Quotation Nr: 17 Source: L1	Because they assume that 'forest is us, we are the forest'. It is a small example, but we did leave it [as it is]. Because they do have a principle [if] there is forest,
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	there is water. [If] There is water, there is electricity. So with forests, they can live their lives normally. So if there are damages in forests, it is equal to ruin their own lives. So they are interdependent. This means that they are trying to maintain the natural conditions of the forest, [because they know] how dependent the forest [with them]. And [they are] also depend on their forests.
Quotation Nr: 18 Source: L1	So why do they get to stay in the forest, far away from the access and still can enjoy the electricity? It turns out, they use the nature. There is a lot of micro hydro generator. They think in this way, if there are forests there are water. The water have many functions. One of them is electricity. With electricity they could live like ordinary people. How so they can have electricity? They have to protect the forest again in order to have water.
Quotation Nr: 19 Source: L1	[We try to make a condition that] our electricity needs are met but the forest is maintained as well. The condition is if you want electricity, [you] have to maintain forests. It is one of the concept of balanced development. Their lives are very balanced at all, so their sustainability automatically continued. They still use the forest to eat, but I think they were wise enough to use the forests. They may just take the honeys, rattans, rubbers, and fruits.
Quotation Nr: 20 Source: L2	they also object [if they are blamed for] causing damages to the forest [because their] shifting cultivation. They have objections [about this]. They claim they do the shifting cultivation from generation to generation, and it never damages their forest.
Quotation Nr: 21 Source: L2	They disagree [if they are blamed] for doing shifting cultivation, including damaging the forest because they understand it. They are experiencing and living in their [own] cultivation patterns. They said that [these cultivation] patterns is inherited from their grandparents, and never destroy the forest. Even, they will give fines for the other practices that do not in accordance with their customary practice.
■ Code: Boundary conflicts	
Quotation Nr: 22 Source: L3	It was once proposed by local governments for the implementation of a conservation area on the ground, but people feel the land are still belong to them because they never get the compensation. So they want to clear the land again. The nature reserve also [has the same case]. The nature reserve is set after the existence of human inside it. We want to help them but we cannot [because they live in the forest]. There are thirty villages in Paser that have the same situation.
Quotation Nr: 23 Source: L2	[There is the story] in a village they are pursued by the villagers with machete because they put the marker in the people yard. An example of bad coordination. The coordination and socialization should be a continuous process. There are people who are not too familiar with the protected forest or nature reserve [boundary] issue. They do not know the limitation. They do not understand [the boundary] until they ask questions about the map.
Quotation Nr: 24 Source: L2	The difficulty that hampers is they are not too familiar with the issues of nature reserve or protected forest. On one side, the officer in the village do not know where the boundary and limitation [of it]. That why [socialization] is needed, so they can ask.
Quotation Nr: 25 Source: L2	But for public interest, we have a case in Kilo Tujuh. It is the site of the power plant, and it has been built. The problem is the power plant is built within the nature reserve area. Then, we make a report to BKSDA for solutions. It has not settled yet. Though we have the power crisis.
Quotation Nr: 26 Source: L5	Because there are some people who do not understand, if [some areas] have been designated as forest parks. They only refers to their grandparent story and practice.
■ Code: Boundary setting practice	
Quotation Nr: 27 Source: L2	Because when we establish the boundary in the field, we also involve these people, for example to make a boundary marker, or to carry our luggage. That it could be many months in the forest. So they know these boundary markers.

	It used to be 25x25 centimeter ironwood pole with carved information such as coordinate numbers. [It allows] an interaction between the team and the community. [It is fruitful interaction] for example if there are companies that enter the area without permission, they were reported [by the people], or they inform us if there are companies that enter the area [without permission].
Quotation Nr: 28 Source: L3	So far] we have the disconnection [in the process]. Sometimes, the villagers do not know this kind of map. They only know [the forest are] if there is a sign board. While, the [boundary] team sometime telling people for granted [without comprehensive information]. The boundaries [team] is from BPKH Balikpapan. This team is responsible to set and maintain the boundary markers. But, in the implementation we do not know [the process]. They can act like a spoiled brat. They choose the villagers who they think can read map and operate a simple GPS to set the boundary. Then they pay them. There is ultimately no control here.
■ Code: Causing factors of adat disinvolvement	
Quotation Nr: 29 Source: L1	The inhibiting factor is the managerial factor. It was tough, we are working by a command. We want to initiate but we definitely hit by the authority. The will, I think, [do exists] at low level but not at the managerial level yet. Maybe there is no awareness. The concrete example is the Ministry of Forestry decree. At the bottom level we have made our study, our suggestion, [and also] the solution, but there seems to be a bottleneck.
Quotation Nr: 30 Source: L1	There is a kind of high-level concern about the image of indigenous communities and NGOs, they have yet to get a positive image. Actually there is a fear with no reason to be more transparent [with them]. Because they are critical ones.
Quotation Nr: 31 Source: L3	perhaps because they believe and trust that the government can manages [spatial planning]. With regard to spatial planning, the government that is already able to accommodate their interests. They do not want to be selfish [about their interest]. Perhaps, they are satisfied with the decision, so [they do not want to be] involved.
Quotation Nr: 32 Source: L4	Their life only depends to natural resources. Their mind is just simple.
Quotation Nr: 33 Source: L5	There are no specific adat village. Adat village and village government, it is just the same. It is 139 of similar villages. Sure, like Pasir Belengkong. But on the way, it is changing too, so we do not specialize any adat village. The similar [treatment] applies. Well, the community programs are also just the same.
■ Code: Commitment to protect adat forest	
Quotation Nr: 33 Source: L1	we take the way of forest area conversion. We ask for releasing the right of the forest land [from the central government]. But we will not do it [for indigenous people forest].
Quotation Nr: 34 Source: L1	This is a bit of my understanding. But basically BAPPEDA aware. Specifically for indigenous peoples, we do not plan to change the spatial pattern. It is an effort to affirm our attention on indigenous peoples.
■ Code: Criteria to select the adat community	
Quotation Nr: 35 Source: L3	we do not have local regulations for that. But we acknowledge their existence in the forest area including the village and its ancestral structure. They have their own recognized system. And there is usually an adat leader who knows their members.
■ Code: Customary right understanding	
Quotation Nr: 36 Source: L2	[I think] 65% of them understand.
■ Code: Demotivating factor to involve	
Quotation Nr: 37 Source: L1	I think, at a lower level of understanding, the spatial planning are quite good in the technical sense, but [there are] the lack of understanding of the managerial level. With this lack of understanding, automatically, the spatial planning

	organization management also become less [effective]. I think it is the big problem. [So far] the managerial level focuses on physical development.
Quotation Nr: 38 Source: L3	sometimes the companies are not serious [to use their land] as the permit that they have earned. They have been already given the permission [to cultivate], but they sell the land. It was so troublesome for participating for [DISTANBUN].
Quotation Nr: 39 Source: L3	there is a business permit that issued before the decentralization. We have many leasehold permits that belong to dominantly people from Jakarta. They do not cultivate the land but they hold tight the leasehold permit.
Quotation Nr: 40 Source: L2	but externally the coordination with relevant institutions still need to be strengthened. In the scope area with the department. For example, there is a new permit issuing or extension for a company
Quotation Nr: 41 Source: L2	The difficulty that hampers is they are not too familiar with the issues of nature reserve or protected forest. On one side, the officer in the village do not know where the boundary and limitation [of it]. That why [socialization] is needed, so they can ask.
Quotation Nr: 42 Source: L4	internally our staff also limited. Although the equipment is complete but our staff is quite limited. It is the internal constraint.
Quotation Nr: 43 Source: L5	There is no inhibitory factor, because we have a good coordination. Here, [we have many division] such as economic, development, and governance. For land conflict, it is in the governance division.
■ Code: Document loss	
Quotation Nr: 44 Source: L1	But it turns out, hmm, [Later in the process] we did not manage to get this document. We actually want to review this regulation as the material for the preparation of the new spatial plan. We did look for this document everywhere, but apparently we found nothing. There is no well-recorded technical documents as well as legal documents. It was registered, but we have never seen the documents.
■ Code: Efforts to improve the adat role	
Quotation Nr: 45 Source: L2	[we] have proposed [to the central government] for the forest area amendment. We accommodate the aspirations of the various stakeholders, including indigenous people [like] in Kampung Muluy. We focus on those forest areas that have people live there. [We] want those areas no longer as forest areas.
Quotation Nr: 46 Source: L2	We offer the project for social forest or afforestation [to them]. Their response is very positive, for example, the region of Talake or Komam, they are happy if there is some afforestation [project]. Our forest development division takes care of that. The farmer group is enthusiastic when they got this project. There is also a technical assistance for their nurseries. This project is from the national budget that is given to the area. So, [we seek] the farmer groups who are ready to prepare the land and the seeds, [and] to plant with the help of the government project.
Quotation Nr: 47 Source: L4	They are a part of forums in the Public Protection Office. There, they provide inputs through activities that sometimes it is not official. They have meetings with MUSPIDA or even the Regent. From this meeting, the Regent will give us commands [to respond the inputs]. They do not give the input frontal to services.
■ Code: Efforts in Forest Amandement	
Quotation Nr: 48 Source: L2	We have proposed an amendment of the forest area which we proposed previously. [The proposal] would like to change the status of forests or nature reserves. It was in our proposal to the national [government] when it comes to change this function.
■ Code: Emerging trends to involve more	
Quotation Nr: 49 Source: L3	But lately, I see it has changed. Maybe, it is because of new economic pressures that our existence must also be visible. So there are initiatives [to get

	involved] in order to preserve Paser identity.
Quotation Nr: 50 Source: L4	The emergence of organization for Paser people is established by people who sat in the government due to heredity, or their education. They are aware of their rights. [The adat people] distribute their opinions through those who have managed to do in education, or in the bureaucracy and so on. This representation has a correlation that they can help for organizing spatial planning.
Quotation Nr: 51 Source: L5	there is the Council of Adat Paser. They are active to give opinion in the spatial planning discussion.
■ Code: Follow the rules	
Quotation Nr: 52 Source: L1	We [strictly] follow the rules.
Quotation Nr: 53 Source: L1	For the procedure we follow [the rule from central government].
Quotation Nr: 54 Source: L3	[We] always refer to BPN [land permits]. They have major roles in the spatial planning, [especially for designing] the land use. [We] go along with the [BPN] recommendation. Because we are user. [We always rely on] their recommendation, whether they present the meeting or not. Yesterday, there was a permit application for using land as rice fields, mining, and estate farming. [We] asked BPN for recommendations. [But first] they will conduct a survey [in a team] to examine the situation on the ground, whether it is suitable for plantations, rice fields or government facilities. [They will decide] whether the land should be left [as it was] or not.
Quotation Nr: 55 Source: L3	Our recommendation of soil suitability in accordance with rules and regulation from Ministry of Agriculture. [This regulation] provides [basic rules] to use a specific soil for a specific commodity. [This regulation] is helpful [for us to give recommendations] in the field. [We] do not really bother about it. If the spatial planning is OK, we are also OK. [We only need] to make [the permit holder] to consider those limitation.
Quotation Nr: 56 Source: L2	for issues concerning to forest area, we return to the rules of the game [from the regulation]. Moreover, [for] local governments, in this case is the Regent.
■ Code: Forest amendment status	
Quotation Nr: 57 Source: L2	But the Regent have not signed it yet, because the recommendation from the Integrated Team does not correspond with the municipality proposal. It does not mean [that] the Regent does not want to sign it, he temporarily suspended. So, from the proposed 120.000 hectares, it is just 29.000 thousand approved [by the Integrated Team]. In the sense, the Integrated Team only agree that amount of [29.000 hectares] land. Well, the 29.000 hectares [are] in the Municipality of Paser, which include the Padang Pangrapat area that [regarded] earlier as nature reserves.
Quotation Nr: 58 Source: L2	So, in the latest proposal, we want to converse 120.000 hectare of forest area, but only approved [by the Integrated Team] 29.000 hectares. The Regent actually has risen the number to 135.000, and pended to sign for 29.000 hectares acceptance. In other words [the process has] deferred until later.
■ Code: Government efforts to involve the adat community	
Quotation Nr: 59 Source: L1	We have a meeting with the community and the village but not specifically with [the respective] indigenous villages. The village we usually engage in public consultation or socialization. But we do not engage directly to a particular community. [Usually] more specific technical services, they do it.
Quotation Nr: 60 Source: L2	the Regent support it, in terms of funding or implementation. He always support community events. Now there is no real problem with how adat communities live or develop themselves. The municipal government gives a lot of opportunities.
Quotation Nr: 61 Source: L5	here we try to involve the royal family. The heirs were assembled in Belengkong. But in fact, the royal family wishes that we make a protected

	forest. They hope there is a solution to prosper, and also it is the mandate of the law to make Paser as a part of world lungs.
Quotation Nr: 62 Source: L5	The economic activity of the people will change the forest if the government does not control it. But it would be difficult if the government is not involving people in setting the forest boundary. The people should be given an understanding through dissemination and socialization, or building community forest.
■ Code: Key stakeholder	
Quotation Nr: 63 Source: L1	Clearly there are three institutions [as the key stakeholder which are] BAPPEDA, DBMPTR, and DISHUTAMBEN. All of this institution is colouring [and playing significant roles].
■ Code: Land permits procedure	
Quotation Nr: 64 Source: L3	Well, for the land for another use (APL) outside the forest area, now we carefully look again whether it is suitable for plantation or not. But in Paser, the whole APL have been completely divided up for agricultural activities. In the past, BPN gave the recommendation [to the municipality] to issue the permit for APL. As long as the correspondence company could negotiate and socialize with people. [Also, the company have to] make an inventory list of people who is the land belong to. [Lastly, the company] must be willing to make a [business] partnership with the people. If these requirement were not fulfilled, the permit cannot be issued.
	Well, after that any kind of permit will be possibly following, such as leasehold rights, business license, concession and others
Quotation Nr: 65 Source: L2	our competence [is mainly] in terms of providing technical advice, for example, there is a permit application for using 10 thousand hectares. We have an authority to provide government advices to the Regent as the head of the municipality, whether the land are either a non-forest area (APL), a forest area, or both. The Regent has an authority to give permits in the non-forest area. While for the forest areas, the Regent will forward the technical advice [from DISHUTAMBEN] as recommendations to the provincial offices or the Governor. This technical advice applies to the forest, but for the non-forest areas, the Regent can issue a permit [independently].
Quotation Nr: 66 Source: L2	In the regulation from the Minister of Forestry, if there is no [response from the Regent about the permit application] after fourteen days, [then] the Governor has a right mechanism to provide to the company a recommendation for an [permit] extension in a municipality.
■ Code: Legal emptiness	
Quotation Nr: 67 Source: L1	I guess, [in the end] we conclude that there is legal emptiness situation in the spatial planning.
Quotation Nr: 68 Source: L1	Finally, we take [this situation] as an experience of [legal] emptiness.
■ Code: Local context in applying the procedures	
Quotation Nr: 69 Source: L1	Indeed, there are adjustments of such spatial structure or spatial pattern because we adjust to local conditions. We utilize studies or research that we have done also in designing the spatial structure and pattern. Perhaps, this is the local content.
■ Code: Local people characters	
Quotation Nr: 70 Source: L3	the people of Paser are very open, they never refuse the arrival of guest, even if the guest is great, they make them as a king. The Kings mostly were Javanese, some of them were Bugis. In the past, they make a smart person King. Well, the Bugis apparently misused this hospitality.
Quotation Nr: 71 Source: L3	It was before I was born. There is no problem with the Javanese. They are well assimilated with the local. [Even] I see them in the river up there, carrying lanjung, bags of rattan, and spears. Just like the local. I am deceived. I ask

	them with local language, but he reply in Javanese. I am asking why you work like the people here, it should be you who teach people to do a cultivation as in Java. He said he cannot do it, so he is hunting and fishing, exactly like people here. That is a picture of how open we are and never consider people background except their kindness.
Quotation Nr: 72 Source: L3	In Sulawesi or Kutai, people talk in their own language, they do not care with another people who cannot understand them. We do not do it. We do not use Paser with a person who does not understand Paser. That is the difference.
■ Code: Local Regulation for Spatial Planning	
Quotation Nr: 73 Source: L1	So, the Municipality of Paser had had the Spatial Plan set forth in the Local Government Regulation Number 6/2009. It was registered in the Local Government Sheet Number 2/1999.
Quotation Nr: 74 Source: L1	initially we had the Local Government Regulation Number 6 of 2008 [and we have] our benchmark, the Spatial Planning Law 26/2007.
■ Code: Methods to involve the adat community	
Quotation Nr: 75 Source: L2	the needed one is a socialization. Because we are often perform monitoring and evaluation to the regions belonging to areas that intersect directly with the forest. In essence, the first thing is a socialization.
Quotation Nr: 76 Source: L2	we provide a map during the socialization and informs the problem concerns the protected forest, the conservation forest.
Quotation Nr: 77 Source: L2	we want the boundary map can be reproduced more and more. Socialization is also important. We invite them to come in the sub municipality office. We [always] also have this [socialization] even in a short event. Providing maps [in a socialization] is helpful to inform these villages [about the boundaries so they know] the limitation. Though our budget is very limited [to do it].
■ Code: Negative achievement of involving adat	
Quotation Nr: 78 Source: L2	For the negative one, in general does not exist, but with the opportunity to communicate with other people they can sometimes mistakenly use it. They make reports [to everyone they want] without coordination with us. Even they use the internet to do it.
■ Code: Negative impacts of assimilation	
Quotation Nr: 79 Source: L3	though this assimilation is sometimes overlooked our customs. My children are not able to speak Paser, they use Indonesian at home.
■ Code: No technical instructions	
Quotation Nr: 80 Source: L1	But to support this regulation, we still refer to the previous spatial derivatives legislation [of the Spatial Planning Law 24/1992]. But it turns out when we legalized it, the new rules appear that it weakens the position of our regulation. So in fact, our procedure has been referred to the Law 26/2007.
Quotation Nr: 81 Source: L1	At that time, there was no lower derivate regulation of the Spatial Planning Law 26/2007, meaning the law had no technical instructions.
■ Code: Objection on forest conversion results	
Quotation Nr: 82 Source: L1	Actually, though not all of our proposals [for forest area conversion] approved, but [some of them are approved] and we do pretty much agree so we can continue [the spatial planning process]. Problems in the conversion of forest area [raised because it does not consider] field conditions. That's what we try to rationalize it. Rationalization means we are trying to put forward common sense in determining a region.
■ Code: Optimism to have a regulation	
Quotation Nr: 83 Source: L1	We consider [after this approval] it is visible in the future, we will have a regulation as soon as possible.
■ Code: Physical character of the adat	
Quotation Nr: 84 Source: L2	they have the similar face. Because their marriages are within the close blood line. Apparently they still have blood relations. Indeed, they can marry the distant cousin, but the blood still remains and appear in their faces.
■ Code: Plant varieties	

Quotation Nr: 85 Source: L2	They plant perennials such as sengan, rubber, cempedak but not the oil palm.
Quotation Nr: 86 Source: L2	Usually they grow fruits, including rubber. Indeed, in Paser rubber plants are favourable, not like oil palm. Oil palms had been modified.
■ Code: Positive achievements of adat involvement	
Quotation Nr: 87 Source: L2	they want to be able to help us in terms of informing [the actual situation in the forest]. They help to control the company business in order not to enter the forest area. In fact, they even make reports directly to the local parliament or the Regent. We were bothered [with this case].
Quotation Nr: 88 Source: L2	The adat people can provide the information of violations in their areas as early as possible, especially in the adat forest. It is positive.
Quotation Nr: 89 Source: L2	Sometimes we do not know a certain issue but it is on the internet. But, it is nothing compare to their roles in protecting forest. Even, they are really helpful to give us information as early as possible. We have shortcomings in personals and budget.
■ Code: Power sharing	
Quotation Nr: 90 Source: L1	But for [spatial planning] preparation in general is by BAPPEDA. The Local Secretary is leading to submission to the legislature. I mean [for BAPPEDA, we are handling] A to Z issue, It is [like] the level of the kitchen, [we are cooking] and the secretary serves.
Quotation Nr: 91 Source: L2	nature reserves are within our region but our authority can be said to be zero for this case. For conservation areas [the authority] is in BKSDA, a conservation centre as the extension arm of the department.
Quotation Nr: 92 Source: L4	The division of duties are BAPPEDA is responsible for macro planning, here we are responsible for micro planning.
Quotation Nr: 93 Source: L5	SKPDs have duties for preparing spatial planning, such as BAPPEDA, DBMPTR, and others. All the technical advice from SKPDs are brought and studied here.
■ Code: Practical example of adat involvement	
Quotation Nr: 94 Source: L2	We invite all, including NGOs and the adat community, they will talk directly with BPKH. [They can ask question] for example, [how come] 19.000 [hectares] of our villages are inside the forest boundary according to map, and 75% of those land are forest land? Is it possible to exclude it from the forest? [This type of question] would be accommodated as inputs by BPKH. It will be talked about this Monday. The inputs of this village is going to be approved or not. On the one hand, BPKH also [want to] see the real situation on the ground. If the real situation shows there is no forest anymore and there is also a fact that people cultivating there for generation, then BPKH will make adjustment [in their map].. So it will be a mutualism process.
■ Code: Problem in forest permits	
Quotation Nr: 95 Source: L2	[Also] The rule of the Ministry of Forestry can be changed any times. Even too many rules [are like that]. Every six months [the rule] are subject to be reviewed again.
Quotation Nr: 96 Source: L2	there is a rule that gives the authority to open forest area for the [private] plantation sector, so the plantations will be within forest areas. I think it was revoked after only two weeks. The ministry could [do it]. I forgot which rules, but there is [rules] that were revoked after two weeks. Here, we keep [the forest area] as if it is a life and death matter, [and then] the rule [simply] allows [for using the forest area]. It made the forestry companies haste to apply [new permits]. [Ironically] the rule was dropped within two weeks. It was a problem, both for the municipality and the company.
Quotation Nr: 97 Source: L5	Communities often complain [about spatial planning] not to BAPPEDA but here. Their letter to the Regent is addressed to this office, as the entry point to the Regent office. Usually [the Regent] have the meeting with the correspondence services to response the complaint. Even sometimes, the

	complaint can occur from the company. The company may sometimes dealing with the public right. At this time, [they] already pocketed permits, but the people refuse them when they want to use the land. Then we make a facilitation. We keep to avoid conflicts, and the spatial planning can be understood by the community.
■ Code: Problem in land status amandement	
Quotation Nr: 98 Source: L2	[Even though, Padang Pangrapat is a nature reserves] it has land certificates. Because [this area] used to be the transmigration region. [The land certificates was issued according to] transmigration rules. The certificates were issued to people who [join the] transmigration [program and the people who come later]. It is so polemic area now, while there is also such thing like a harbour. The nature reserve [itself] was set before and [it is] older that the kampong.
Quotation Nr: 99 Source: L2	[In other case] there is a nature reserve within a kampong like in Labuan Kalo, Lori, [and] Tanjung Karo. [The villages] has existed since before the Independence Day [1945] or the Japanese era.
Quotation Nr: 100 Source: L2	there is a nature reserve set [by the central government] with [a centralistic] coordination. It doesn't make any sense there are people's homes within a nature reserve. This means that there are still many weaknesses [in this policy]. What is the reason behind? The philosophy of conservation is to leave the nature of region as it is. Even, we cannot do anything to the leaves or twigs that fell down there. Supposing any things that falls in the conservation area, should be left unharmed. If the timber collapse, let it collapse [and] forget it. This means that area is so close to divinity, everyone can get over there in vain. What happens in Paser now is, there are kampongs declared as nature reserves. If it is only a forest area, we can still have our eyes closed any violations, but we cannot do it for conservation areas. It is a criminal offense.
Quotation Nr: 101 Source: L2	They are curios whether the boundary was set on the table without any socialization, because [there is] evidence that the boundary [document] was signed by the head of the village. [It is the common practice] in the New Order Era. The government can force people to sign [and agree] to anything. But for the Reformation Order Era, [we have] the opposite practice. To solve the problem we have proposed the amendment of forest area.
■ Code: Problems in spatial planning process	
Quotation Nr: 102 Source: L1	But it turns out after we return to the municipality, the Regent is still waiting for the results of changes in forest area. He wants the forest areas conversion to be completely accommodated in the new spatial plan.
Quotation Nr: 103 Source: L3	one of the obstacles is we do not have a smooth design in spatial planning. It hampers. Then the [coordinate] boundary between the province forestry service and BKSDA are different. Sometimes, one of the offices says a certain area is within the forest, but it is denied by another office. No similarity between the boundary issued by the forestry minister or BKSDA and the provincial forestry service is the obstacle in spatial planning.
Quotation Nr: 104 Source: L2	[The major problem] is the amendment of the forest area. The boundary of nature reserve also. They are still questioning how the boundary was established.
Quotation Nr: 105 Source: L4	At the stage of pre-planning, there is a process that involves the community. It is still being done. [We] were just waiting for execution. [We] just have not been able to be implemented due to the spatial planning has not passed [the legislation]. It is still constraining us.
■ Code: Process Pending	
Quotation Nr: 106 Source: L1	Now the draft of the new spatial plan has been in the legislature, but it is so bogged down because of the ministerial decree in forestry. Meanwhile, we are pending [all the process and what] we will agree. Yesterday we gave some of BKPRD insights [about this issue]. It is still undecided we can go forward or we delay [the process].

■ Code: Process pre-requirement	
Quotation Nr: 107 Source: L1	We begin with the collection of data and build spatial database. Because it is the main requirement. It was completed in 2008.
■ Code: Role expectation	
Quotation Nr: 108 Source: L1	Perhaps if there is a need to be improved is the division of authority with the DBMPTR. BAPPEDA is responsible for the macro spatial planning, while DBMPTR is responsible for detailed planning, especially urban areas.
Quotation Nr: 109 Source: L2	It would be different, if the authority is fully given to [us as] an autonomous region. [We think] the forest issues handling might be effective. While now, there are permits issued [by the central government] that we cannot do much [in term of monitoring].
■ Code: Role initiatives	
Quotation Nr: 110 Source: L3	As long as our spatial planning is uncertain, we have difficulties. Well, [Because of this uncertainty] we proactively create such a spatial planning for our own purpose. For example, in agriculture [sector] we have made a map draft for food cropping and cooperation with Mulawarman University. [It includes] the map of sustainable land for food cropping. [We hope the map] becomes the legal basis for agriculture activity [in the space]. Well, for the estate farming sector, [we have opinion] that after [the map] is legalized as a local regulation of sustainable land for food cropping, the estate farming sector would be using the remaining land that are not set as sustainable land for food cropping. The remaining land can also be used as an integrated land use for horticulture. The sustainable land for food cropping will focus on paddy cultivations to secure [our food security]. This is for sustainable land [for food cropping].
■ Code: Role satisfaction	
Quotation Nr: 111 Source: L1	This role is quite effective to run.
Quotation Nr: 112 Source: L2	The role [of DISHUTAMBEN] has not been in line with our expectations. That is, our authority is limited only in non-forest area, while [the authority] for the forest area is in [the Ministry of Forestry], in this case [it could be] at whether the province [level] or the ministry [of central government].
Quotation Nr: 113 Source: L2	For surveillance tasks [in forest areas that commanded by the central government], it is okay [for us]. To that extent we do control.
Quotation Nr: 114 Source: L2	[the central government] release our head off, while our tail is still held [by them]. So, we cannot freely do surveillance [the forest area]
Quotation Nr: 115 Source: L5	Yes certainly our role is maximal, the Secretary has three assistant secretary.
■ Code: Stakeholder conflict of interest	
Quotation Nr: 116 Source: L3	[there are] problems with the transmigration land. This land are reserved but never be cultivated because ruling officers are from the local government. They are not the central government [officers]. But sometimes, the central government is still questioning about transmigration [land]. [Because] there is no activities [in this land], many prospective users want to apply permits [to use it]. They apply to us, not to the central government. Their reason is why are there such land without any activity on it? How could [the central government answer this question], even they had no officers in the area. Their officers now are scattering in many offices of other departments. Well, [like or not] we are the shooting target of [people].
■ Code: Stakeholder in spatial planning	
Quotation Nr: 117 Source: L1	the agencies that involved in BKPRD [follow] the standard, we are referring the Ministry of Home Affairs regulation. It is regulated by the Regent regulation that include its institutions, working groups, and the secretariat.
■ Code: Stakeholder roles	
Quotation Nr: 118	BAPPEDA is the secretariat. We are the person who running this secretariat.

Source: L1	
Quotation Nr: 119 Source: L1	The chairman is the Local Secretary.
Quotation Nr: 120 Source: L1	the main role of BAPPEDA is the role of coordination among agencies.
Quotation Nr: 121 Source: L1	DISHUTAMBEN are frequently knowing it in the field, especially concerning the right of the adat forest.
Quotation Nr: 122 Source: L3	DISTANBUN is a land user.
Quotation Nr: 123 Source: L3	Then [for agriculture] we will provide the soil suitability in classes S1, S2, S3. This is our duty to provide feedback to [the permit applicant].
Quotation Nr: 124 Source: L3	Our office only provide information for the suitable plot of certain commodities. As example, oil palms fit with all soil type, [indeed] with specific treatments and limiting factors. For instance, the land have to have a drainage or a terracing [if the slope is] the limiting factor. [This specific treatments] must be made by the employer, or planters or the prospective users. This kind of information are from us. In terms of topography as well, we [strongly recommend] not to use a land with certain slopes.
Quotation Nr: 125 Source: L2	the position of [DISHUTAMBEN] is related with the boundaries of forest areas. That is, [DISHUTAMBEN] could provide a general description boundaries of the forest area. [It could be the boundary between] a non-forest area and a forest area. It would be also related to the conservation area. That means we have to provide an understanding to the community in which the region is an area that can be utilized by the community, and also the region where the rights of the State laid. That is, there are any restrictions or rules where people can manage their land. [Also, there are] areas that people must obey the forestry rules.
Quotation Nr: 126 Source: L2	[DISHUTAMBEN] acts as a person who has [forest] households. [Meaning, it is responsible] for one hundred percent of surveillances of [forestry] rules in the municipality. Well, when it comes to the authority for granting permission especially in forest areas, we are the only institutions that can make recommendations. [In the common term], it is an approval for [certain] activities [within forest areas] in the Municipality of Paser.
Quotation Nr: 127 Source: L2	We are the member [of BKPRD] as the committee of boundary. [For our role] Maybe we could insert the forest area amendment [as shown in] the Provincial Spatial Planning for the Municipality of Paser.
Quotation Nr: 126 Source: L4	For us the benefit of our services related to spatial planning it as mandated by the law 26/2007 and the government regulation 15/2010. It wants to plan a municipal capital region in accordance with the recently conditions, as well as in other sub- municipal for the next twenty years. We should prepare infrastructure, prepare open spaces. The locations that become growth centres that are important to us in this spatial planning. Indeed, despite it has planned, changes are still occurred. But the plan changing only possible in the next five years.
Quotation Nr: 127 Source: L4	But the budgeting is here. We have ten districts including the capital, well, now we are preparing the city of Tanah Grogot city, then the city of Pasir Belengkong, and Batu Sopang.
Quotation Nr: 128 Source: L5	We lead the meeting, so next it is SKPDs who are responsible to formulate technical matters. But the decision is in the Secretary, and indeed, the Secretary will bring the decision for the final decision.
Quotation Nr: 129 Source: L5	if there are any problems with the company, [he will take a lead] in order not to widen issues in the community. But for decision-making related to spatial planning, the Secretary is the one who make decision.
Quotation Nr: 130 Source: L5	there may be problems of people who are not known by the technical services, it may appear and be reported such as governance, land or permits that related to economic development. We make the problem mapping, then we ask for

	technical advices [from SKPD], then we make the solution. [We monitor] if there is still problem in the public, because the problem often appears suddenly.
Quotation Nr: 131 Source: L5	The secretariat led by the Local secretary, [and] remain has consolidation with BAPPEDA, but we mostly concern with [non-technical] problems in society. We solve the overlap problem [of the forest boundary].
■ Code: Struggling on the local forest interest	
Quotation Nr: 132 Source: L1	Then, we continue to struggle so our local interests [specially] in forest areas can be accommodated.
■ Code: Substance approval	
Quotation Nr: 133 Source: L1	In December 2011, we got our [spatial planning substance] approval [from the central government].
■ Code: Supporting factor to involve	
Quotation Nr: 134 Source: L1	In addition to its duties and functions mandated by the regulation, BAPPEDA also interested in spatial planning because the spatial plan is a part of development planning.
Quotation Nr: 135 Source: L3	[We use the spatial planning as] the basis to determine the project location. [It is helpful] to answer the question on how we select the project location from National Auditors.
Quotation Nr: 136 Source: L3	If we do not participate, [it would be conflicts] with another institution.
Quotation Nr: 137 Source: L3	Many applicants do not know if the land can possibly belong to the forest. They do not understand why there is no development on some land [so they insist to ask permits to use it]. [Also they think that their plantations] are on their father land, [even though the fact] they are on forest land. [For this case] we cannot help. Well, that is also why we are involved in spatial planning.
Quotation Nr: 138 Source: L2	What is certain is, [based on our] duties and functions. Related to our duties as the spearhead in at local [level]. What is certain, forestry should be included, [especially] in the boundaries issue.
Quotation Nr: 139 Source: L2	Because only us who really understand [issues in the forest area]. Only people from our offices that deal with the problem in the field directly. They knows where is the area under their surveillance. It make our office is able to give an idea or feedback to the team [of BKPRD].
Quotation Nr: 140 Source: L2	if it does not involve us, or people with knowledge of forestry, [it would be the case in the future] that the forest people sue the forest people. Roughly speaking, reasons could be made up [by someone], if [a certain] land area will be opened for transmigration or rice field, but if [the land] is a nature reserve, [a good reasoning] should be given. Because it is clear that [using a nature reserve for another use] is a criminal offense. But, with our expertise, we can give a chronological explanation [why there is a criminal offense]. [We can give a proof, for example,] the nature reserve was set first before the first village here.
Quotation Nr: 141 Source: L4	The first is the duties and functions.
Quotation Nr: 142 Source: L4	Second, our interests. It could have been right there, in the urban areas, there is a society or an investor who wants to develop. Well, it turns out that the location is not appropriate with the interest [of society or investor]. The interest can be changed in BKPRD for approval. BKPRD has a definite member. Well, that is obvious. Not to mention later, for law enforcement, the utilization of space should be [along with] the law enforcement. For a while, there is a spatial planning investigator, and even he does not work. And indeed, until now there is no law enforcement efforts for spatial planning.
■ Code: Technical assistance from the central government	
Quotation Nr: 143 Source: L1	had a technical assistance from [central government] consultants who were guiding us through [the process], they were assigned to ensure our [spatial

	planning process] is on [the right] track of preparation.
■ Code: The Emerging of Awareness	
Quotation Nr: 144 Source: L1	Actually for the spatial planning issues, the local governments have the awareness after the Spatial Planning Law 26/2007 [had been enacted].
Quotation Nr: 145 Source: L1	We have a new awareness after the law was published.
■ Code: The end of the process	
Quotation Nr: 146 Source: L1	In 2008, we finished our process, and [even though] it was not supported by [any technical] regulations, it was passed by the local parliament.
■ Code: The history of assimilation	
Quotation Nr: 147 Source: L3	<p>In the Dutch era, the Bugis were appointed to be a leader, but they were selling the land of Paser. So, the Bugis had no land anymore because they sold it. If they claimed they have land, they were lying because they had sold the land to the Dutch. In fact, we never sell our land. I have read a book when I was in the elementary school, the Paser did not sell the land but the Bugis did. I have the story about the Javanese. My grandfather said, in the transition time from Dutch to Japanese, the Javanese were employed as romusha to transport goods, because the Javanese is the long distance walkers. When they were tired, they were left in the jungle. The Japanese only gave a mat for sleeping. My father had a mercy for these people. He brought them home, he fed them until they were safe and sound.</p> <p>Finally, they were getting better and strong. What did my grandfather do is, he asked these people to do farming altogether with him. At the time, the harvests were so abundant, but needed to be attended, otherwise the pest destroyed it. One of these people is still alive, he lives in Balikpapan. But when the Dutch Army (NICA), it was considered as a violation. They beat my grandfather and these people. Now, my grandfather is honoured as hero for his service in bringing the Javanese home. So, this is the story for how long the Javanese live in Paser</p>
■ Code: The importance of Spatial Planning	
Quotation Nr: 146 Source: L1	Eventually we realized that we used to have [the Spatial Planning] but it cannot be found because [we think] it is not important.
Quotation Nr: 147 Source: L5	So indeed, spatial planning is still used as a reference, opinions, and rules. [We always] refer to spatial planning to issue permit.
■ Code: The problem with the substance approval	
Quotation Nr: 148 Source: L1 Has Comment: no	[It is merely] because in the substance approval process, there are some things that we skip primarily in the term of spatial pattern, meaning that yesterday's substance approval is only accommodating provincial and national interests, but not yet accommodated local interests.
■ Code: The procedure	
Quotation Nr: 149 Source: L1	In conclusion we go again for reviewing [the regulation]. We follow the processes or procedures that have been set by the ministry in charge of spatial planning affairs.
■ Code: The process to convert forest	
Quotation Nr: 150 Source: L1	Conversion in forest areas is through [by an approving process of] the Integrated Team at provincial level. [The conversion] is the result of recommendation from the Integrated Team.
■ Code: The start of the process	
Quotation Nr: 151 Source: L1	[Then] we start again, we began to plan a new spatial planning [process]. That process began in 2006.
■ Code: The way the adat express their stand	
Quotation Nr: 152 Source: L2	We certainly have a coordination with the village government. The adat people sometimes are also a member of the NGO. The environmental NGOs, like GASAKLIBAS, has a member there. They are natives. So they sometimes

	participate in activities concerning environmental issues that are seminars. We invite them, we give the information that there are like this seminars and they came. Yes, that is one of [the way they express their stand]. Well, this kind of such [communication] patterns finally [develop] our relationship. They do not hesitate to come to the office anymore.
■ Code: Unrecognized Spatial Planning	
Quotation Nr: 153 Source: L1	[Though] it was disallowed because it does not conform to [the later coming technical regulations]. Because it once passed, [the technical regulations] come up. After many technical consulting here and there, [we realized] the position of our [spatial planning] regulations is weak. So it was not recognized.
■ Code: View on the customary right	
Quotation Nr: 154 Source: L1	Agree. In principle, it is like this, the spatial planning set the nature and humans. Both of them are set wisely [in spatial planning]. Simply, we respect natural rights and the rights of our society as well. For example, in the protected forest of Gunung Lumut there are indigenous tribes [living]. In the spatial planning, we will not fiddle with it. It was given to the people, let them live with the naturalness of it. That means that there are indigenous peoples who live in the forest.
Quotation Nr: 155 Source: L3	I agree that there are customary rights, because that is also set in the Basic Agrarian Law. And if they do not accommodate the interests of adat, people will have the heavy offense. There used to be the study of Hasanuddin University. [It concludes] that it is not discovered the adat indigenous communal lands in Paser. But the research might not involve people in the grass root, so that the recommendations cannot be used because in fact they exist.
Quotation Nr: 156 Source: L2	I know exactly the concerning issues [with] indigenous people. I certainly agree because there is a customary right of indigenous peoples as in the regulation. Definitely, recognition of the existing forest rights of [the adat community], for example in Kampung Muluy, [we see] there is a customary right in the forest.
Quotation Nr: 157 Source: L2	For local governments, shifting cultivation is alright as long as it is under control. Especially for us, we know [the adat people] can do it responsibly. They also understand how to protect the forest.
Quotation Nr: 158 Source: L2	the government pay attention to the value and their knowledge.
Quotation Nr: 159 Source: L4	If [we] go back to the rules, [the customary right] must be respected. It is the linkage of spatial planning law with the environmental laws. The adat customary rights should be kept away from any disruption. We could not have any violation against the adat customary right because it will clash with the environmental law.
Quotation Nr: 160 Source: L4	there is a residential development on a large scale here. Here also exists the adat graveyard, we should respect it by excluded it from the development site or so on. We fully respect it in our spatial planning, we preserve this cultural site. For example, in Kubelengkong. There can be no development efforts there. Although we do not know if there will be a development of the city and so it could happen in the future. But it seems, it is impossible. It will only be conserved as cultural heritage, we have to manage it. And we do not recommend it for a variety of activities that do not comply with the cultural heritage activities.
Quotation Nr: 161 Source: L5	I agree. And indeed, there is question that the customary rights in Paser is not the same as in Minangkabau, but here it was a Royal Kingdom of Paser that had this area. But it had changed especially their royal heirs. These histories are well-understood by stakeholders. We have a mannered society, they never refuse when their areas were set as nature reserve. [That is why] th Regent invites the royal family [in every occasion]. They will not be forgotten. In the history, once we had a king. I say, if the king is not sincere to surrender his

	kingdom [the republic], we do not exist.
Quotation Nr: 162 Source: L5	There is an exception like Paser Belengkong village because the palace are there with historic sites, which must be maintained. But the village government is similar with the other village
■ Code: Violation handling in forest area	
Quotation Nr: 163 Source: L2	if there are findings of violations, we have to report to the province first before we can execute the proper further action to it, [we wait for what is] given [actions] by the province or department. Especially the area of forest, we only give advice, but if there is a violation we simply report it, and the follow up action is up to the department.
Quotation Nr: 164 Source: L2	For example is the hotspots issue, they can monitor it from [their office] where the hotspots are. For that reason, our role is not optimal, but if there is a ripple [with local people] we become the shooting target. Because we were the closest to the people. Hopefully we do not collide with our own people.
Quotation Nr: 165 Source: L2	when there is a problem or findings of violation in the field [with the local people], the local people will report it to the Regent. Then, the Regent will ask [to us about the issue that we never know]. [I think] the rule makes opportunities [for violations].
■ Code: Violation practices	
Quotation Nr: 166 Source: L3	When we give our business valuation because as a warning. Even we give the three times warning, and also a warning letter from BPN. But it turns out, [they are not afraid because] they have the power of money. We have no clue why this case does not have followed up action until now. They always say, there is miscellaneous internal conflict [within the company] so they do not cultivate the land until now.
Quotation Nr: 167 Source: L2	Well, the rule does not mention [the clause] that the Governor can issue a permit and consider that the Regent has agreed if within the fourteen days interval [there is no response from the municipality]. Well, meaning after these fourteen days [Company A] will get the permit from the Governor even though the Regent does not give [any approval]. Well, we see it is here the constraints, there is a chance that [the rule] can be played [by Mr X in the municipality service]. Mr X is also working for Company A, he will withheld [for fourteen days] the permit application letter. So, the permit will be extended [from the Governor who considers the Regent does not give a response]. This is the example. Finally [the Company A permit is] issued [according to] the decree of the ministry, [and] ready to be extended.
Quotation Nr: 168 Source: L2	When it comes to the forest authority, we want to see how far the authority is going. Because, there are many examples already happened in other municipalities. They had used to abuse authorities to trade the land in the forest also, and ended as a crime. The company [that get the permit] sneak off, so the government people stay [and face the court trial]. But it is not happened yet here.
■ Code: Violations in spatial planning	
Quotation Nr: 169 Source: L5	However, there is still an opportunity to violate spatial planning. For example, there is a company who has estate farming permits to cultivate the land, but they want change the permits as mining permits. It is because they know there are coal under the soil. Yesterday, they want to revise the permit to mining permits. But we do not give approval because their first intention is to do estate farming not mining.

APPENDIX 3B

LIST OF CODES FROM ADAT ELDERS INTERVIEWS

■ Code: Adat law community

Quotation Nr: 1 Source: A1	I wish I could change the legal definition of customary rights, but it is not possible because it is given by the law. I only can encourage people to identify their adat values or laws that can be applied widely to the society. So, maybe somebody, we can use it as legal basis when we want to form the adat law community in the future.
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■ Code: Awareness in the benefits of involvement

Quotation Nr: 2 Source: A1	Actually, if we are involved, we can give feedbacks. So the spatial planning can consider the adat value in plotting areas.
Quotation Nr: 3 Source: A4	Not yet.
Quotation Nr: 4 Source: A2	I don't know yet about spatial planning. I don't know what form it is. They told me in a brief. No details. They should go to the village to explain about it
Quotation Nr: 5 Source: A3	I never know.
Quotation Nr: 6 Source: A5	I think the benefit is it would be preserve our forest. If the spatial planning is a mess then our forest are hard to be preserved. It brings many negative things.

■ Code: Awareness to the restriction

Quotation Nr: 7 Source: A1	Of course. We cannot cut trees in certain forest areas. We can be arrested.
Quotation Nr: 8 Source: A4	Not yet.
Quotation Nr: 9 Source: A2	It should be rules that restrict us. Which one is belong to the adat and which one is belong to the rest? But we never know about it. Roughly speaking, we never really know what either the people can do or cannot do.
Quotation Nr: 10 Source: A3	I don't know because there is no explanation from the government.
Quotation Nr: 11 Source: A5	I never know before.

■ Code: Battle in the constitutional court

Quotation Nr: 12 Source: A4	We sued the government in the constitutional court. I went to Jakarta for this. We wanted the government to recognize our right in the forest. We won in the court for this issue.
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■ Code: Benefit from outsiders

Quotation Nr: 13 Source: A1	Clearly, the adat people minds are more opened. These immigrants give the adat people knowledge and skills especially in trading. The adat people were not used to do the trading business, now they have started to do it.
Quotation Nr: 14 Source: A4	They open a garage for people here. It is helpful. Some of them are a truck driver.
Quotation Nr: 15 Source: A2	It should be, unfortunately it doesn't.
Quotation Nr: 16 Source: A3	We share experiences, especially in agriculture business. Because, mostly they are Banjar, they know better about agriculture. They marry people here.
Quotation Nr: 17 Source: A5	No, we don't

■ Code: Changes in using forest

Quotation Nr: 18 Source: A1	But now, the government give them good rice seeds and fertilizers, so they can harvest the rice within three month. They also start plant the rubbers.
Quotation Nr: 19 Source: A1	The difference of past and present practice is they use fertilizers now so they can plant rice for twice a year.
Quotation Nr: 20	It's a bit different now. In the past, we did not use toxic-poisoning pesticides, now

Source: A4	we use it because of the modernity. We use the spray tool. For logging, we still use belayung, axes, or small chainsaw.
Quotation Nr: 21 Source: A2	there has been no change. At least, since the time I wore belayung, or chainsaw machine in the modern day. Well this change now. Well, our parents were only able to open the land 1 hectare in one planting season, but now we can open up to 2 hectares.
Quotation Nr: 22 Source: A3	There is something changed. We now use chainsaw machines, in the past we use belayung or axes. It took a month to open one hectare land. Now it can be finished for one day only.
Quotation Nr: 23 Source: A5	No important changing. We plant rubbers, cacaos, coffees. We still use traditional equipment. For modern equipment, we use small chainsaws. That's all.
Quotation Nr: 24 Source: A5	If we only rely on seeking gaharu woods, for example, we cannot make it for living. Too much of uncertainty. Sometimes we can get 30 million in a week, but in another time we don't get any money at all. We need another job, which is the reason why we are now serious to do rubber plantation.
■ Code: Customary laws	
Quotation Nr: 25 Source: A2	<p>Anyone who uses [any chemical poisons] to get the fish in the river, we will give them fine. I do not take them to the police station. Anyone of outsiders, who harvest wood without any permission from me or the neighbourhood unit or the adat, I will not take them to the police station. I will fine you Rp.250.000, - and ask the adat for another punishment.</p> <p>They pay the fine, in what way. If they was cutting a wood without any permission, we will give them a fine with one belayung or Mandau.</p>
Quotation Nr: 26 Source: A2	<p>This is the basic customary. We use our customs.</p> <p>In case I want to use your land, I will make agreement with you instead of buying and selling. I may be farming there, but only for rice not for long term plants. The plants are yours, but the land are still belong to me. This is the custom. The agreement should be known by the people, because we anticipate the fear of conflict if our children insist on a legal basis of their land. That is why, now, we make a letter of agreement.</p> <p>Example, we have a field in the forest. Some people want to borrow for rice planting, they can keep the harvest for them, but the field is still belong to us. Sometime, the land belong to many families. Even though in Rantau Buta all the people have the family relationship, we invite all them so that they know if somebody borrows the land.</p>
Quotation Nr: 27 Source: A2	<p>I think in the system of inheritance here, the daughter is less to be entitled to the land compare to the son. The daughter only has the right approximately 20% of her parent land.</p> <p>But for the harvest, they have an equal right. They share equally for the rattan or fruits harvest. Because, basically the right to the land is the right to open the forest not to possess the land.</p>
Quotation Nr: 28 Source: A2	we do not use the police rule. We have our customary rules. They should work in accordance with their agreement with the adat. If they break the agreement, they should look another location.
Quotation Nr: 29 Source: A2	We tell them about the rule. For example, they cannot dam they river because we maintain the river as it is, so they don't have any courage to do that.
■ Code: Customary rights in spatial planning	
Quotation Nr: 30 Source: A1	The customary rights should be adopted in the spatial planning. But in Paser, there are no such customary rights. People only know about forest cultivation areas or protection forests.
Quotation Nr: 31	I only know the location of what kind of animals that we cannot hunt them.

Source: A4	
Quotation Nr: 32 Source: A2	I don't know yet.
Quotation Nr: 33 Source: A3	I never heard before too.
Quotation Nr: 34 Source: A5	I understand a little, there will be a new plan to accommodate the adat village, especially those who live near the river upstream. But I cannot give the detail.
■ Code: Customary rights understandings	
Quotation Nr: 35 Source: A1	It seems not all of really understand. They consider their land that belong to their families for generations are the customary land. It is not true because the land can still be sold. In that regard to it, I always remind the people about customary rights in every meeting.
Quotation Nr: 36 Source: A1	I know it, especially the boundaries of the adat territory. It is from our ancestors, our fathers, our grandfathers. They told me about it.
Quotation Nr: 37 Source: A2	Rights of crops. So what I am trying to say, we are actually not entitled to the land. We basically have no rights. The land belong to the state, however we have the right to maintain this land. Suppose this open land are for us, we keep our crops and so on. That is what we are entitled to it actually. The land belong to the state. We don't have the legal basis to own the land. Before we were born, the land were already there. We only possess the crops on the surface not the land.
Quotation Nr: 38 Source: A2	I don't really understand to what extent it is. Here, we are equal to use the land because we are basically one family. They can use land as much as their strength to open the forest.
Quotation Nr: 39 Source: A3	I know there is an adat forest across the river. The chief of the adat is a hereditary position. We can pick the fruits there but we cannot cut the trees. We cannot cultivate there. It is only for collecting the fruits and wild rubbers.
Quotation Nr: 40 Source: A5	I don't really understand, but I know the adat does exist and follow the state rules
■ Code: Definitions of customary right	
Quotation Nr: 41 Source: A1	The customary rights means the right to cultivate the adat land. This land should belong to the community as common property. This land cannot be sold or bought. It is also cannot be claimed as certain family land or inherited to the grandchildren. After using the land, the people should return it to the adat.
Quotation Nr: 42 Source: A4	the customary rights are our right to use the forest.
Quotation Nr: 43 Source: A3	Customary right is the adat community region.
Quotation Nr: 44 Source: A5	customary rights are our right to use the forest
■ Code: Definitions of spatial planning	
Quotation Nr: 45 Source: A1	The spatial planning is a spatial distribution of groups, or grouping areas of development activity, in general. For example, from here down to there are business areas, so people cannot build house as residential building.
Quotation Nr: 46 Source: A4	Spatial planning divides the area into special uses. There are some part of the area that we cannot use it. Some areas also have specific uses, like areas for cultivation or hunting. It is not difficult to do it here, we already delineate our cultivation area within the three thousand hectares. We preserve these land together, except for Gunung Lumut, we cannot use it at all, it must not be destroyed.
Quotation Nr: 47 Source: A2	I never heard the spatial planning before. If it refers to the boundary setting, I had heard about that. The people was involved but only as a porter to bring logistics. We never know where exactly the boundaries of the forest are. We know our village boundaries, but we don't know about the protection forest boundaries. We don't know where our location limit to cultivate. I have asked to the municipal government in Grogot, they have told me, there are forest boundaries here.
Quotation Nr: 48	For the spatial planning, I am confused. However, I know about forest

Source: A3	boundaries. I know the boundary of the forest and the village. We have the sketch of the boundary.
Quotation Nr: 49 Source: A5	For the spatial planning, I heard before but in a brief. That was a presentation from DBMPTR at the sub municipal office. They explain about the forest boundary. I think spatial planning is related to this, but I don't understand in depth.
■ Code: Disputes on land	
Quotation Nr: 50 Source: A2	We don't want the children of the land borrower demand the land the borrowed land, and claim that the land belongs to their father. What often happens, in this village I see the land borrowers are ungrateful, and want to possess the land. They borrow the land in the beginning, and over the time they claim the land to be their property. I am fixing this problem. Every time there is a community, I remind the people that the borrowed land should be returned to the land right holders, do not make it as their own property. Nowadays, the problems are prominent among the people. Two or three years ago, some people borrowed the land. Then they start to forget about the agreement. This is the cause of dispute between families. Well this is happening now. So they have wrong understandings about borrowing land, but they feel they are right. The land is still owned by the families not by the person because the land are inherited by the ancestors.
Quotation Nr: 51 Source: A2	Because today, what is associated with land selling, are they sell land that used to be cultivated by their grandparents, their fathers or their own land. People forget that they only sell the rights to cultivate the land not the land itself. Beside, we never make a land certificate.
■ Code: Environmental awareness	
Quotation Nr: 52 Source: A4	Our harvest quantity is decreasing now. In the past, we planted four cans of rice seeds we could eat the harvest for a year, now it only lasts in a half year. I do not know why, maybe the climate is changing, it affects to the plan. Rain began to be irregular. Usually in August we have a hot temperature so the fruits can bloom, and flowerings, so we will have a good mango in October. But, now, it is October and the fruits already started flowering. We do not know the solution for it.
Quotation Nr: 53 Source: A4	We never plant oil palms. We don't want people downstream have shortcomings of water.
Quotation Nr: 54 Source: A4	we don't destroy the forest, we don't cut woods irresponsibly like other people. I forbid the people for doing it. We preserve, maintain, and conserve our forest. Because the destruction of forest will affect our life. Deforestation has a obvious impact to the life. It is better to do anything else instead of destroying our forest.
Quotation Nr: 55 Source: A4	But now, we do not open the old-growth forests for many years have been.
Quotation Nr: 56 Source: A2	we always keep the environment.
■ Code: External activities affect the forest management	
Quotation Nr: 57 Source: A1	These immigrants are mostly diligent especially in cultivation. The native people in general are lazy. They only plant the rice once a year, then they are only sleeping in the rest of the time. These immigrants are different. They go to the field before the dawn and go home when the dusk are coming while the native people go to the field after 8 o'clock. The native people are really wasting their time. That is why these immigrants have a better life than the native people. As result, these immigrants influence the native people. Now, the native people follow their style in cultivating land.
Quotation Nr: 58 Source: A4	It doesn't affect us. We already have our own way, the land also has been divided to the people.
Quotation Nr: 59 Source: A2	No activities are around the village. Maybe, because there are nothing they targeted here. Yesterday, they seek for coal drilling here, but the coals are too young. They

	go home earlier.
Quotation Nr: 60 Source: A3	They don't affect us. They follow my ways.
Quotation Nr: 61 Source: A5	They don't.
■ Code: Farming system	
Quotation Nr: 62 Source: A2	The farming system remains similar. We still don't have an irrigation system.
■ Code: Forest dependency	
Quotation Nr: 63 Source: A4	Yes, we are.
Quotation Nr: 64 Source: A4	We rely on the forest for our revenue even for medicines. I think the last one is the important one. We rely on the forest to save a life. We use roots, herb, or leaves to cure our diseases or illness. So far, it works well on our body.
Quotation Nr: 65 Source: A4	In the past we lived scattered near the river.
Quotation Nr: 66 Source: A2	But if we look at today's story, it is about relations with the forest, [in my opinion] that is close. Very close.
Quotation Nr: 67 Source: A2	In average, 75% of the households rely on the forest to make living.
Quotation Nr: 68 Source: A2	In general, yes they do. Some of us plant rattans, mine the gold in the river, or hunting the animals.
■ Code: History of Adat Paser	
Quotation Nr: 69 Source: A1	In Paser, there is only one tribe which is Paser. It is different from the Dayak. Well so many people misunderstood it. Some people say the Paser is the Dayak, although we clearly have different customs. In Kalimantan there are four big tribes which are Dayak, Paser, Banjar, and Kutai. It cannot be generalized that all Kalimantan tribe are Dayak. Our language and religion make us different with the other tribe. We have Paser language and we are Muslim.
Quotation Nr: 70 Source: A2	But when I speak there in Paser, there are a mythology of Sangkureang and Sangkuripang. Sangkureang steps on the sky, Sangkuripang steps on the ground. It is basically the history [of Paser]. Paser people are from that ghosts. Then, they were making a group, we called bala and the adat had begun.
Quotation Nr: 71 Source: A5	People who live here are not only the native but also from many ethnics, Banjar, Javanese, and Batak. It is different with Rantau Layung, I think their people are Paser. This village was a transmigration settlement. It started in 1993. At the time, there were 94 houses. This location was near with the old kampong. The government wanted to unite us in one location. It is similar with Muluy that started in 2001.
■ Code: Invitation for spatial planning process	
Quotation Nr: 72 Source: A1	The government invites us for general meetings, not spatial planning in specific.
Quotation Nr: 73 Source: A4	They never invite us for spatial planning issue. Maybe, they invite us for general issues. They invite us by letter or oral invitation.
Quotation Nr: 74 Source: A2	I am never invited in spatial planning meeting. They should have invited me in 2010 since I became the village chief.
Quotation Nr: 75 Source: A3	I was invited but not for spatial planning matters. It is about the village development in general. Also, with a company that will build a road passing through this village. Also, we will build micro hydro generator in 2014. We get funds from companies.
Quotation Nr: 76 Source: A5	We are never invited for spatial planning meeting, yes we have meetings with the government but for another development issues.
■ Code: Items to be changed	
Quotation Nr: 78 Source: A4	I want our participative map is being legalized as a legal basis for spatial planning in our forest.

Quotation Nr: 79 Source: A2	I think the government should return the adat right on forest to the adat. If there are investment that enter through the adat forest, they should ask the adat permission. Because, all the time they are ignoring the adat people.
Quotation Nr: 80 Source: A3	So far, everything is fine.
Quotation Nr: 81 Source: A5	It should be a will to improve the adat human resources quality. We need more educated people to maintain our forest.
■ Code: Land right	
Quotation Nr: 82 Source: A1	The grandfather inherit the land to their grandchildren, so now the grandchildren possess the land. The adat council cannot control what they are doing on their land, it is up to them. The government also cannot control it except for the forest cultivation area or the protection forest.
Quotation Nr: 83 Source: A2	The other villages in this sub municipality don't have right to make the certificate. Because we don't have land. If there is a land selling, we only make a letter of agreement, witnessed by some people who really knows the origin of the land. It is a regular letter of agreement. There are the name of the seller and the buyer, the witnesses, and the simple boundary of the land.
Quotation Nr: 84 Source: A3	In Rantau Layung, the forest is common property. Everybody can open and use the land. The land does not belong to anyone, as long as we have the meeting first with the chief. As far as I know, the land here belong to the village or the adat.
Quotation Nr: 85 Source: A5	I know the forest is belong to someone or inherited over generations. But I don't exactly who they are. Clearly, now the forest is possessed by someone. It doesn't belong to one person but many people. For sure, the land cannot be traded, because temporarily it belongs to the forest cultivation area. Because of its status, no one has a courage to sell it. Maybe, in other villages they has sold hundred hectares of these land. But here, no one has done it.
■ Code: Modernism	
Quotation Nr: 86 Source: A1	In the past, they really relied on the forest, but now it is changing. They are now opened to do another business. As I observed, people who only rely on the forest for living, they cannot have a good life. Our ancestor said that the forest curses on them because they cut the rattan. The money from cutting rattan only last until the rattan gets withered. It means the money will be finished within a week. So, they have to combine with another business like plantations or mining.
Quotation Nr: 87 Source: A1	Nowadays, some of their villages have become small towns. Like in Batu Kajang. In Batu Kajang there is a coal mining company. This company give the adat compensations for using their land. They allow the adat people to do business like catering, room rentals, or retails around the location to provide their employee needs.
Quotation Nr: 88 Source: A5	Here, people start to do rubber plantation instead of only seeking rattans, gaharu woods, or hunting animals. Our rubbers are ready to be extracted.
■ Code: Negative things brought by the outsider	
Quotation Nr: 89 Source: A1	Our language is the most affected by these immigrants. Our grandparents now cannot really understand Paser language. They prefer to use Bahasa than our native language. I think they are shameful with the Paser.
Quotation Nr: 90 Source: A1	Not really. But I think the trucks that come through in our road make our village dusty.
Quotation Nr: 91 Source: A2	There are also no negative things. Because before they came here, they asked for permission to the adat
Quotation Nr: 92 Source: A3	There are no negative things. They are usually well assimilated. Besides, we now are aware with new people. We have to inform the police, since many of comen or terrorists hide in remote areas like here.
Quotation Nr: 93 Source: A5	They bring nothing.
■ Code: No Customary Rights	
Quotation Nr: 94	Legally in Paser, there is no such thing as the customary rights. There is a forest

Source: A1	hold by a society for generations. So the forest can freely be traded by the people, or immigrants or employers. The forest is privately owned and not controlled by the adat because here there are no indigenous peoples. So without any customary laws, there are no customary communities or customary land. Only private land or individual properties are available. This means that the land may be sold, while communal land or customary land should not be traded. It may be used for generations and inherit it to their grandchildren. In Paser, there are no customary land, that there are only private land.
Quotation Nr: 95 Source: A1	There are no customary rights or customary land in Paser because there are no the adat law society. It is based on the research conducted by Hasanuddin University School of Law. The customary rights are only entitled to the adat that enacted their own laws. If there are criminals in the adat community, the adat should punish criminals by their laws instead of bring those criminals to the police. If somebody has been caught for stealing a chicken in the adat community, this person must be punished with the adat law. This kind of society does not exist in Paser, so there are no communities that have customary rights. Their land cannot be considered as customary land as written in the law. The good practice in the customary right can be seen in Minangkabau, West Sumatra. They have an authority to punish any violations against the adat rules.
■ Code: Non forest occupation	
Quotation Nr: 96 Source: A1	Now they open their mind to do another business like plantations or mining.
Quotation Nr: 97 Source: A4	A plenty of us. Not many. They are young. I let them go to get experiences from another places.
Quotation Nr: 98 Source: A2	Some of us work for company in Batu Kajang. But they are living there, although they are still residents.
Quotation Nr: 99 Source: A3	some of the youth work in Batu Kajang. But there are only 4 people.
Quotation Nr: 100 Source: A5	No, they don't.
■ Code: Opinions on the government rules	
Quotation Nr: 101 Source: A1	The government always concerns about the adat, they invite us in many ceremonial events. We are proud of it. So far, I don't see any disadvantages. The government always listens to what we say.
Quotation Nr: 102 Source: A4	When the government changed Pasir to Paser, I think it was the biggest advantage for us. We were not prod with Pasir name, it means sands. For us, this is important.
Quotation Nr: 103 Source: A2	Mining concession brings disadvantages for the adat. For example, the government gives the concession right to a person from Jakarta without any discussion with the adat. The government strictly rule us not to cut the forest, to hunt animals, in other hand they give permissions to some company. What is belong to the adat should be returned to the adat. Let the adat rule it with our customary law. I observed many company can easily use the protection forest. They even can manipulate the boundary. It is not fair for the adat
Quotation Nr: 104 Source: A3	No, I don't think there is any disadvantages from the government. Even they give us houses.
Quotation Nr: 105 Source: A5	I think the regulation on the estate farming is really good. It helps our business. And I think there are no disadvantageous regulation.
■ Code: Outsiders affect the adat life	
Quotation Nr: 106 Source: A1	They affected the adat people, in positive and negative ways.
Quotation Nr: 107 Source: A4	Essentially, they follow every step we make
Quotation Nr: 108 Source: A2	They do not affect the lives of people here. Even, I expect they bring knowledge especially for farming. Sometimes ago, a Javanese came and bought a hectare of

	land. I expect he use new methods but I observe he just follow the people here. I am little bit disappointed.
Quotation Nr: 109 Source: A3	They don't affect us, in fact they follow our customs.
Quotation Nr: 110 Source: A5	No, they haven't.
■ Code: Outsider's business	
Quotation Nr: 111 Source: A1	They mostly do trading business or farming.
Quotation Nr: 112 Source: A4	They do what we do.
Quotation Nr: 113 Source: A2	They are chainsaw men, gold seekers or those who simply live here. Some of them suck up the sand from the river.
Quotation Nr: 114 Source: A3	They follow what people do. Farming, cultivating, or grow rattans. Rattans can be harvested after five years.
Quotation Nr: 115 Source: A5	They sleep over here for weeks to hunt animals.
■ Code: Participatory planning practice	
Quotation Nr: 116 Source: A4	Because, we already divide the forest area in the participatory map. We only use three thousand hectare to do a cultivation. These land are outside of the old-growth forest.
Quotation Nr: 117 Source: A4	For example, about the regional budget management. We can express our opinion on how to use this money. Our houses are from the government budget. They build us this neighbourhood in order to unite our settlement in one place
■ Code: Permits for the outsider	
Quotation Nr: 118 Source: A1	Of course, they asked for permission. They become permanent residents.
Quotation Nr: 119 Source: A4	They asked for permission to us.
Quotation Nr: 120 Source: A2	Anyone who works here, outsiders who have the capital, they have to involve the community. If they do not involve people, the adat will enforce the rule, they should get out of here
Quotation Nr: 121 Source: A3	Sometime they don't ask for permission, except they pass through the village or we meet in the forest
Quotation Nr: 122 Source: A5	They ask for permission.
■ Code: Population	
Quotation Nr: 123 Source: A4	I think it is sufficient since we are only a hundred people with 36 or 37 households
Quotation Nr: 124 Source: A2	We are never afraid of land shortcomings. I think the land are available enough for all the people. There are only 31 households here, or 150 people.
Quotation Nr: 125 Source: A2	We have enough land for 31 households here. We need more people actually.
Quotation Nr: 126 Source: A2	<p>But since 1982 this village only has 25 household and 95 people in average. Even though, there are three graveyards with thousand stones near the village, but our population always stays around 100 people. I think these graveyards are our ancestors. But why our population never increases? I think our ancestor leaves a legacy of 'lazy disease'. It make this village unfavourable. People easily gets bored. In fact, thousand people had lived here.</p> <p>I always instruct the people not to follow the family planning program. There are many young couple here with enough money to raise kids, but they don't have a kid after 10 years of marriage. Some classes in our school now are empty, because we don't have kids. Maybe, for the next three years, this school will be closed. If this situation remains, this village will not exist in the next 30 years. While, kids</p>

	that we have sent to school in the city don't come back to this village. They get jobs out there, marry outsiders. It makes this situation worse.
Quotation Nr: 127 Source: A3	I know every person here. Only 57 households and 219 people live here. We do recognize strangers.
Quotation Nr: 128 Source: A5	There are 183 households live here.
■ Code: Positive and things brought by the outsider	
Quotation Nr: 129 Source: A1	They influence how the adat wear clothes. They used to wear clothes improperly. Now, the adat people wear the same clothes of the immigrants.
Quotation Nr: 130 Source: A4	They are very helpful. For example, they can repair the electric generator or anything.
Quotation Nr: 131 Source: A2	They don't bring any positive things. Because they simply follow what the people do here. When the people plan rice, they follow to plant rice. When we plant vegetables, they follow to plant vegetables.
Quotation Nr: 132 Source: A3	They don't bring anything. They follow us.
Quotation Nr: 133 Source: A5	They are just ordinary people. They ask for permission to seek gaharu woods, and they go home if they find it.
■ Code: Rites in the adat	
Quotation Nr: 134 Source: A1	In the ritual, they still do. For example, when they want to farm, they talk to spirits. No one there in the forest, but they look like doing a conversation. Then they take the first cut of the wood. If the first cut is a clean cut without anything stuck in the cutting equipment, they will continue the clearing works, but if there are anything stuck in their cutting equipment, they will delay the works for the next days. This is common ritual here especially for the adat community who lives in the deep forest. They believe, if during the first cut of the forest the machete hook something, it is a bad sign to stop the work for sometimes. It is a warning of danger from the spirit. They should not continue to work in the area, especially in the inland forest.
Quotation Nr: 135 Source: A4	We always start the cutting work on Tuesday. We make all kinds of statues. Each of the statues is used for the ritual use. They are replacements to the spirit, as we open the field. We use bengkerak, beneo or deraya wood for the statue, it is a small thorny tree is not too large. We also use beneo woods, it has no straight spines. We use deraya, a mangrove root, this is special. We use it as a replacement for creatures that might be bleeding because of us. We do this ritual because we want a peace, secure, no any interference, and for preventing from the disease that cannot be cured.
Quotation Nr: 136 Source: A3	If we want to open a new field, we must make the terms. We make mamang-mamang or wood statues first
Quotation Nr: 137 Source: A3	We must make mamang-mamang, especially if we want to open a field in the dense forest with large trees. Mamang mamang are wood statutes, it looks like a stake in human form. I don't have the example. I have one but I think it has already rotten. We cannot see the statue now, it is just like a wood stake. This wood statue is our exchange to the spirits because we take their trees. This is a kind of permission to the forest occupant.
Quotation Nr: 138 Source: A3	I use what our ancestor did in days before. We cannot forget it. It is a tradition that we should preserve.
Quotation Nr: 139 Source: A5	We don't really have a tradition. We follow the state rules.
Quotation Nr: 140 Source: A5	We don't really have rites to follow because we are relatively new here.
Quotation Nr: 141 Source: A5	Here, we don't have old tradition. We follow the state.

■ Code: Rules in the forest area

Quotation Nr: 142 Source: A1	But sometimes, their land belong to the protection forest or the forest cultivation area. These land cannot be traded because it is forbidden by the law. They can only hunt certain animals in the protection forest, or steal the wood from the forest, but they will be arrested if they were caught by the forest ranger. Those illegal logs will be seizure by the government. So the bottom line is, there are no customary land in Paser. There are only family land that inherited over generations, and can be traded. These kind of land cannot be called as the customary land.
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■ Code: Shifting Cultivation Practice

Quotation Nr: 143 Source: A1	In general now they are not too much doing rice planting in the forest, because the government start to apply a selective restriction for shifting cultivation practices. Besides, the land can only be cultivated for rice in two years. In the first years they only plant rice then they are start to plant fruits, rubbers or rattan in the side line of rice. They cannot use this land in the third years and so on because these plants have grown. The have to find another place to plant rice. This practice can lead to run out the land. I think it is the reason why now they are considering to plant rice in the rice field
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Quotation Nr: 144 Source: A4	People in the village has rules like this. First, before them open fields, or open locations, they have a meeting. They make some consultations. Some groups of people who want to farm, they consulted. They discuss which locations they want to open for a cultivation. So we decided together. Well after that, they will go directly to the site. They will assess the suitability of the soil for growing rice or other plants like bananas, cassava, all kinds of it. Well after that they return to the village. So they are looking for a good day to open the field.
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Quotation Nr: 145 Source: A4	Then we start to cut the forest as wide as we can. It depends on how strong we are. In average, we only open one hectare or one hectare and half for each of us. It is very rare to open more than that, we know our capabilities to care the fields. They cannot sell these land. We are afraid of quarrel between people like in other villages. These land belong to adat. Anyone who wants to use the land should ask for permission to the adat.
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Quotation Nr: 146 Source: A4	We only make the rotation within these three thousand hectares. For example, after 2013, we will go back to our 80's fields. But we will do it selectively. If the land have grown fruit trees, we will not cut it. It will be left as a forest. Maybe, we will use our 2010 land for rice. We have many fruits trees there, and rattans.
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Quotation Nr: 147 Source: A2	When we want to farm in each year, we have a meeting first with community leaders from neighbourhood units, the adat leaders, and the people. In the meeting, we discuss about where we will clear the fields. Is it in one place or scattering places? Supposed that I want to clear a new field, I have to ensure the land is belongs to me not you. So we cannot decide by ourselves where we are going to make a new field.
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Quotation Nr: 148 Source: A2	When we talk about how to open the field, first we cut shrubs, small branch, and twigs to clear the land. Then we take a break for weeks. A few weeks later, we do logging. After that we wait at least a month of drought season, then we burn the field. This is kind of a long story. Well yes, we just burn it, we do not speak of crops first yet, because crops is the last thing to talk. Well, after we burn, we plough the soil to grow the plant.
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Well, in the first time we grow short term plants, mostly are vegetables. It probably take three months, then we grow corns for the next 6 months and continue to grow rice. During planting rice, we grow rubber plants as well. The rubber plants grows on the side lines of rice. The rubber plants can consume the water that we use to grow rice until its roots are strong enough. After we harvest the rice, we will clean the land so the long term plant like rubbers can grow.

We will not use the land again for rice, because we have to burn the land if we

	want to grow rice. It is not possible because now there are rubbers that growing on the land. We don't want to make any loss. That is why we have to move to another places after the second year. Here, we are shifting cultivating farmers. We move to the other place for growing rice. We leave the used land with rubber plants or fruits plant. These plants will grow strong after two or three years
Quotation Nr: 149 Source: A2	We discontinue to use the land where our rubber and fruit plants grow. We used to cultivate the land for two years in average. But now, we don't do it anymore. We leave the land with the long term plants. For example, in 2012 I opened the field. It could be used again for the rice until 2014, but I leave it this year with rubber plants. I only clear the land from the shrubs and bushes to maintain the rubber plants growth. Besides, it is not a good practice to cultivate rice with the rubber plants because it is easily distracted by pests. So it had better for us to move to another place.
Quotation Nr: 150 Source: A2	Here, 100% people plant rubbers, we sell the rubber to Batu Kajang or some merchants come here frequently to buy the rubber from the people.
Quotation Nr: 151 Source: A3	we cut down the woods and burn it down. After that, we plant rice and get the first harvest. Then we plant rice again with rubbers or rattans on the side lines of it. We do it for two years, then we move to another place to do the similar practice again. We cannot use the land because the plants have grown. It is not possible to burn it down whereas we need to burn it down to make the soil fertile.
Quotation Nr: 152 Source: A3	Here, we don't count how wide the field but how strength we are in opening forest. So, in average no one can open more than one hectare.
Quotation Nr: 153 Source: A3	We don't plant oil palms. Yes, we plant it but for vegetables not for its fruit. Transportation is really matter here.
Quotation Nr: 154 Source: A5	We open the field no more than one or two hectares in a year.
■ Code: The Outsider	
Quotation Nr: 155 Source: A1	There are many immigrants here. Some of them come by themselves or the government brought them here during the transmigration programme in the past.
Quotation Nr: 156 Source: A4	Yes, we have them here.
Quotation Nr: 157 Source: A2	There are many entrants here.
Quotation Nr: 158 Source: A3	No one does it. Except the immigrants have a husband or wife and then live here
Quotation Nr: 159 Source: A5	No outsiders come here. After 1993, there are no new people. Mostly, the outsider are guest.
■ Code: Understandings to involve	
Quotation Nr: 160 Source: A5	They don't understand. Only people in the government know about it.
Quotation Nr: 161 Source: A4	I don't know it yet. We never have any discussion about it.
Quotation Nr: 162 Source: A2	I think people never heard about that. They only involved as porters when they make the boundary. I forget when it was
Quotation Nr: 163 Source: A3	I never heard before.
Quotation Nr: 164 Source: A5	I never heard before.
■ Code: Welfares of the adat	
Quotation Nr: 165 Source: A1	It makes them wealthy. They can shop anything not only clothes, but also the can buy motorcycles or cars.
Quotation Nr: 168 Source: A1	If they only rely on the forest products it is impossible for them to afford those things. They have to do another business like plantations.
Quotation Nr: 169 Source: A1	I think they have good houses now. Even each household has motorcycles or cars.

Quotation Nr: 170 Source: A1	In the past, they only planted rice for six month in year. After that they abandoned the land until the next 6 months. This practice makes them have the difficulties to buy clothes. They needed another revenue, usually they extract or tap the wild rubbers in the forest
Quotation Nr: 171 Source: A4	I think we can afford it. We can buy motorcycles, buy daily life needs. But for schools, it is different. We don't think school is important yet. I have tried to send some kids to continue their education in Penajam. Even they got scholarships. But they don't want to go to the school. They only attended the class for 4 days, and went home. It is difficult. I was shamed with the scholarship provider.
Quotation Nr: 172 Source: A2	It seems enough if they really manage the forest. The harvest from rubbers and rattans make it possible. They can send their children to high school or college. They only have problem in the first five years or six years when plants are not productive yet. It is the hard period, but they still can collect the forest product like logging or gold mining. We don't buy rice, we plant rice. We only need to buy salt or sugar. Every house has at least two motorcycles. They have their own television also to connect with the outside news.
Quotation Nr: 173 Source: A3	Yes we can. Our plantataion harvest can afford those things. We can send our kids to the college in Grogot.

APPENDIX 4

CATEGORIZING CODES

Codes	Category
Commitment to protect adat forest	Awareness
Customary right understanding	Awareness
The Emerging of Awareness	Awareness
Invitation for spatial planning process	Involvement
Participatory planning practice	Involvement
Understandings to involve	Involvement
Adat involvement	Participation
Adat understanding about involvement in spatial planning	Participation
Efforts to improve the adat role	Participation
Emerging trends to involve more	Participation
Government efforts to involve the adat community	Participation
Methods to involve the adat community	Participation
Negative achievement of involving adat	Participation
Positive achievements of adat involvement	Participation
Practical example of adat involvement	Participation
The way the adat express their stand	Participation
Acceptance to restart the process	Procedure
Boundary conflicts	Procedure
Boundary setting practice	Procedure
Document loss	Procedure
Efforts in Forest Amendment	Procedure
Follow the rules	Procedure
Forest amendment status	Procedure
Land permits procedure	Procedure
Legal emptiness	Procedure
Local context in applying the procedures	Procedure
Local Regulation for Spatial Planning	Procedure
No technical instructions	Procedure
Objection on forest conversion results	Procedure
Optimism to have a regulation	Procedure
Problem in forest permits	Procedure
Problem in land status amendment	Procedure
Problems in spatial planning process	Procedure
Process Pending	Procedure
Process pre-requirement	Procedure
Struggling on the local forest interest	Procedure
Substance approval	Procedure
Technical assistance from the central government	Procedure
The end of the process	Procedure
The importance of Spatial Planning	Procedure
The problem with the substance approval	Procedure
The procedure	Procedure

The process to convert forest	Procedure
The start of the process	Procedure
Unrecognized Spatial Planning	Procedure
Violation practices	Procedure
Violations in spatial planning	Procedure
Benefit from outsiders	Relation
Disputes on land	Relation
Environmental awareness	Relation
External activities affect the forest management	Relation
Farming system	Relation
Forest dependency	Relation
History of Adat Paser	Relation
Negative things brought by the outsider	Relation
Outsiders affect the adat life	Relation
Outsider's business	Relation
Permits for the outsider	Relation
Positive and things brought by the outsider	Relation
Rites in the adat	Relation
Shifting Cultivation Practice	Relation
The Outsider	Relation
Causing factors of adat disinvolvement	Stakeholder
Demotivating factor to involve	Stakeholder
Key stakeholder	Stakeholder
Power sharing	Stakeholder
Role expectation	Stakeholder
Role initiatives	Stakeholder
Role satisfaction	Stakeholder
Stakeholder conflict of interest	Stakeholder
Stakeholder in spatial planning	Stakeholder
Stakeholder roles	Stakeholder
Supporting factor to involve	Stakeholder
Violation handling in forest area	Stakeholder
Battle in the constitutional court	Understanding
Customary laws	Understanding
Customary rights in spatial planning	Understanding
Customary rights understandings	Understanding
Definitions of customary right	Understanding
Definitions of spatial planning	Understanding
Items to be changed	Understanding
Land right	Understanding
No Customary Rights	Understanding
Opinions on the government rules	Understanding
Rules in the forest area	Understanding
Adat community eligibility	Views
Adat law practice	Views
Adat practices in the forest	Views
Adat village structure	Views
Adat wisdom on forest	Views

Criteria to select the adat community	Views
Local people characters	Views
Negative impacts of assimilation	Views
Physical character of the adat	Views
Plant varieties	Views
The history of assimilation	Views
View on the customary right	Views
Changes in using forest	Welfare
Modernism	Welfare
Non forest occupation	Welfare
Population	Welfare
Welfares of the adat	Welfare
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