The Dynamic of Customary 'Adat' Governance and its implication to the Forest Tenure Reform

A case study on the relation of *Adat* Institution performance to the Future Implementation of Forest Tenure Reform in West Seram, Maluku

MSc Thesis

By *Ade Ryane Tamara*

The picture on the
cover shows the landscape of West Seram from a hill (Source: author)

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Ade Ryane Tamara

931228-005-110

Ade.aderyanetamara@wur.nl

MSc Thesis Forest and Nature Conservation Policy

FNP-80436

Wageningen University

Supervisor:

Dr. V.J. Ingram

Wageningen UR

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Abstract

Maluku is a province in Indonesia where most people's lives and the land are still governed by *adat* practice. The local government of Maluku also acknowledge the presence of *adat* as an important aspect of Indonesia's culture and pride. Nonetheless, de facto recognition is not enough for the *adat* people and institutions in Maluku to own their land and manage their forest themselves. *Adat* people in Maluku have to prove to the government that they are *genuine adat*, and furthermore, that they have rights to own *adat* forest. Local regulation in the form of PERDA is required for the legal recognition of *adat* but it has not yet been issued. Although the President of Indonesia has created a way to 'give back' the *adat* forest to the *adat* people, it seems like a long way for the *adat* people in Maluku to grab this opportunity.

This research aims to document *adat* practice in the forest land and forest resources that is believed to have existed for generations in three villages in West Seram, Honitetu, Lokki and Mornaten. By collaborating with CIFOR under its tenure reform project, I studied the current institution related to the *adat* in West Seram and further analysed the influence of *adat* institution on forest tenure reform in Maluku. Additionally, modernisation in the form of economic, technology and religious institutions were considered to perceive how *adat* institutions cope with these factors. Using modified design principles by Ostrom (1990), Agrawal and Chhatre (2006), Cox et al. (2010) and Ingram et al. (2015), in conjunction with the concept of traditional ecological knowledge by Colding et al. (2013), I analysed the current condition of the *adat* institution and practice in relation to the forest land and forest resources in three villages in West Seram. I also examined the diverse understanding pertaining to forest tenure reform from the point of view of the Government and the *adat* community. Data for this research were obtained from semi-structured interviews (*n*= 45), participant observation and secondary documents.

Sasi is a form of *adat*, and is the practice controlling the use of forest land and forest resources in the area. Analysis of the data collected shows that the implementation of *sasi* is now dominated by religious institution in the three villages. Denoting that there are two institutions (the church and the *adat* authorities) responsible for the implementation of *Sasi*. Thus, the finding reveals that modernisation in the form of religious institution is not an obstacle, as the Church can be support for the *adat* institution. *Adat sasi* in contrast, provides several components that can actually benefit the forest as a whole, though it is no longer widely applied nowadays. Technology and economy have had a major impact on the way people extract forest resources, although they affect the way the *adat* community see their forest and understand commercial plantations in their village.

In general, most of the principles from the institution design principle were not present in the *adat* institutions in Honitetu, Lokki and Mornaten. Although the design principle is not a blueprint, it offers an insight regarding what aspects need to be improved. Indeed, for the *adat* institution to continue existing and to be effective in governing forests, they need to improve their monitoring and rule enforcement by increasing the *adat* community's participation. The low level of community knowledge concerning the importance of the legal recognition of the *adat* also has to be bridged by providing intervention in the form of knowledge sharing and capacity building, so that the goals of forest tenure reform do not only benefit the elites but also all of the *adat* community in the three villages of West Seram.

Key words : adat, sasi, West Seram, Indonesia, Institution, design principle, traditional ecological knowledge

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Wageningen, April 2018

Ade Ryane Tamara

"For indeed, with hardship [will be] ease." QS 94:5

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Introduction

Chapter 1. Introduction

1.1 Introduction

Indonesia is one of the countries in the world which harbour numerous numbers of customary governed communities, or usually called *adat* [1]groups in Bahasa, the Indonesian Language. It is believed that *adat* have existed long before the independence of Indonesia and before 2 majority of religions in Indonesia were introduced, Muslim and Christianity. *Adat* traditionally governs the life of the community including their relationship with forests, but has been struggling under colonialism and different kind of government –from dictatorship to democracy –and it is still there until now.

According to Mikkelsen (n.d.) Indonesia is home to 1,128 ethnic groups. Among those great number of *adat* communities, some of them are dependent on forest (Tjoa et al., 2018). This dependency creates a problematic situation particularly due to challenges posed by economic development and changing land rights. Land grabbing as a result of the increased pressure from commercial plantation (e.g. palm oil plantation) to the land conflict between *adat* people and migrants have made *adat* title become a subject to be struggled for. An example from Rempek village provides evidence that private company have more power in defending their position in the forest and land utilization, while *adat* community had limited legal access to forest, leading to decrease of income and increase of community resistance against the company (Riggs et al, 2016)

Access and Ownership of the Forest

In 2016 Ministry of Environment and Forestry formulated 6 different categories of social forestry through the enactment of Government Regulation No.83 of 2016 (PERMEN LHK No.83/2016) which can be applied by community. This regulation is part of tenure reform that has been recently made in Indonesia. Although social forestry (SF) schemes are not yet implemented throughout Indonesia, the regulation has been seen as a way to provide legal access to the community for sustainable management of forest and natural resources, hence decreasing forest and land conflict.

SF schemes are divided into two categories of forest ownership types. The first one is the SF that aims for the utilization of state forest. Four types of program belong to this scheme are community forest (*Hutan Kemasyarakatan/HKm*), village forest (*Hutan Desa*), community-based timber plantation (*Hutan Tanaman Rakyat/HTR*) and Partnership (*Kemitraan*) (Banjade et al, 2016). Second category is the private forest, which based on the Constitutional Ruling No. 35 of 2012 (MK 35) which includes the *adat* forest and private ownership forest. Before the enactment of MK 35,

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[1] Adat is a literal translation of customary.

all unregistered lands belong to the nation. which includes the commons lands managed by *adat* community. However, several actors, including the national alliance of indigenous people of the archipelago (AMAN), HUMA, Epistema Institute, Samdana Institute, university scholars and international advocacy groups have helped *adat* community in Indonesia in advocacy as well as in defending their rights over *adat* land and forest (Siscawati et al, 2017). In 30 December 2016, 4 years after the issue of MK 35, the Government of Indonesia (GoI) finally gave legal ownership of *adat* forest to 9 *adat* communities in Indonesia. This event has given a right momentum for the other *adat* communities to gain legal recognition, access and ownership of their land from GoI. The schematic of the SF scheme in Indonesia is presented in figure 1.
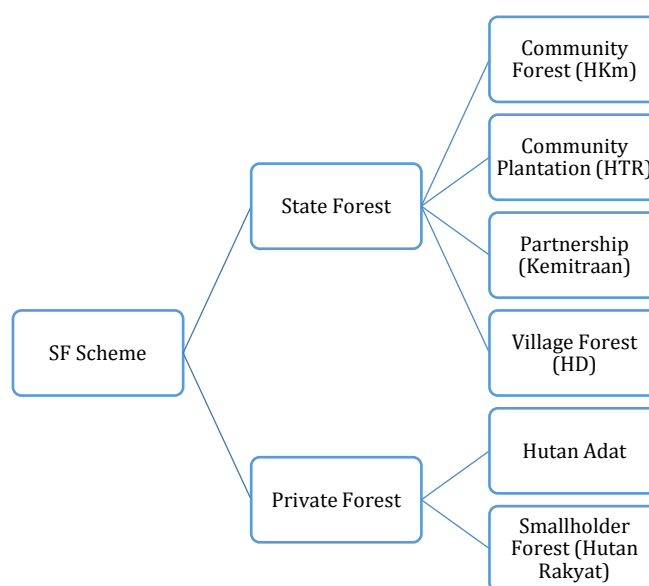
Figure 1. Social Forestry Schemes in Indonesia

Adapted from Siscawati (2017)

To avoid the confusion, I will differentiate SF and *adat* forest in this research. While SF covers the terms used for legal utilization of state forest (from HKm to HD in figure 1), the term of *adat* forest will be used to refer the traditional practices and governance of forest . To refer to both SF scheme, I will use the term of tenure reform.

1.2 Problem Statement

As one of the province in Indonesia, Maluku is largely inhabited by *adat* communities where the management of forest and natural resource is still governed by *adat* practice (Siscawati et al, 2017). *Adat* communities in Maluku were initially ruled by the head of customary village (*Raja*/king) together with the legislative councils which consists of clan leaders. The governance of forest and natural resource were vested in *raja*. However, this institutional structure was then replaced with the model structure proposed by the GoI following the enactment of Law No.5 of

1974 where the king –which initially follows hereditary system –was replaced by the village head (*kepala desa*) through democracy system. Village territory were then divided based on the geographic system, replacing the clan line system (Novaczek, 2001). This overlapping condition of *adat*/village structure was expected to cause confusion, but local *adat* institution was able to incorporate their traditional *adat* structure to the formal structure. The "new" structure of *adat* institution and the traditional structure can be seen in figure 2.
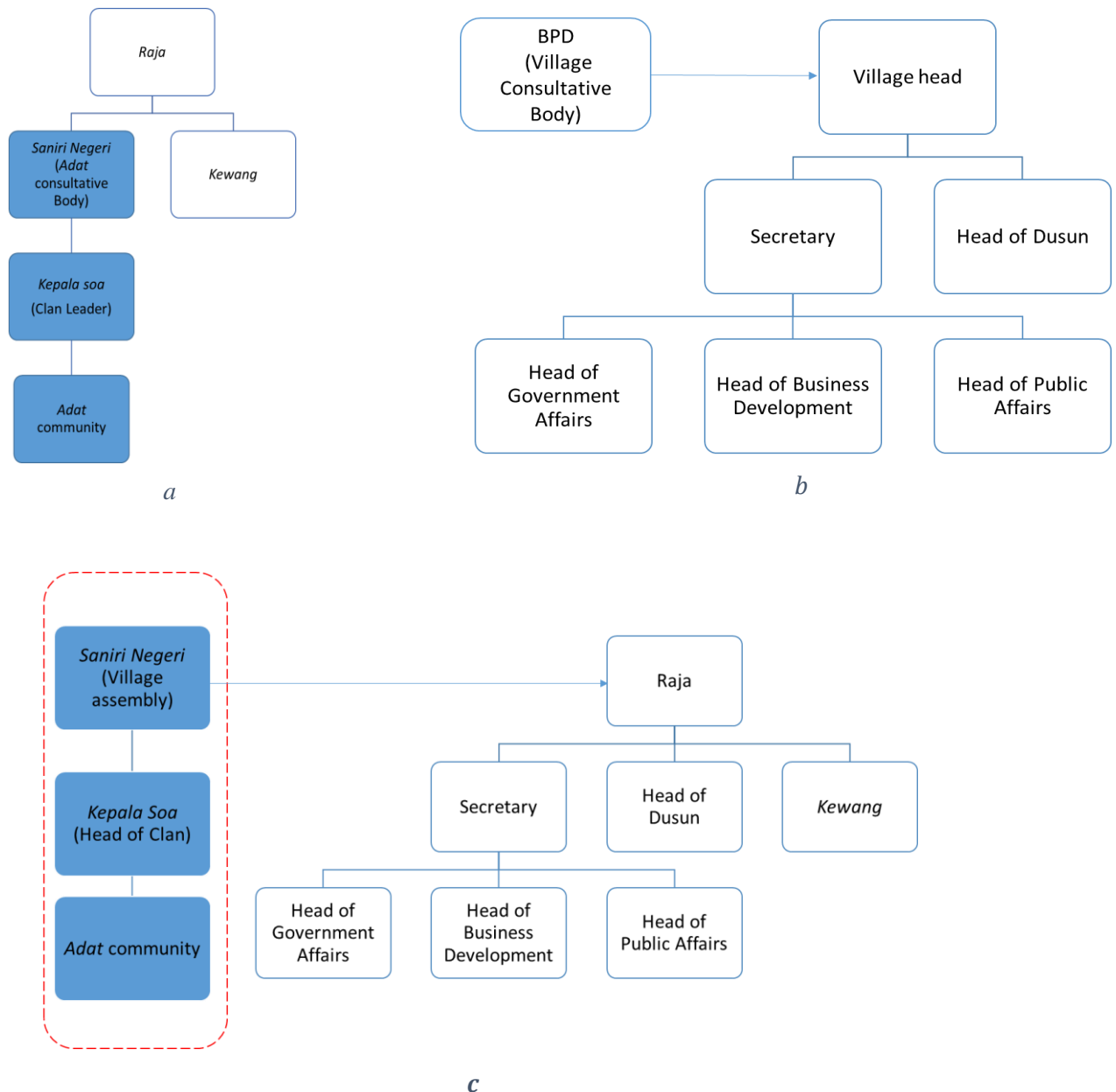
Figure 2a. *adat* **old structure; 2b. Administrative structure; 2c. New Structure of** *adat*

(Adapted from Clerc (2012), Maluku Provincial Regulation No.14/2005

In 2005, the Maluku Provincial Government issued a Government Regulation No.14 of 2005 (PERDA *Provinsi 14/2005*) that return the village based system to the *adat* traditional structure in Maluku Province. This recognition also includes the traditional election of *rajas* –as long as it still exists –with *saniri* or village government in function. Based on this recognition, researcher assumes that *adat* institution in Maluku is strong, meaning that they still have power in decision making process. Any company wants to operate in the area needs to gain permission from the *rajas* (personal communication, 2017). It is the strong adherence to *adat* in Maluku that makes SF scheme irrelevant and resulted in the unsuccessful attempt of SF in the area. Siscawati et al (2017) suggested that instead of conducting one of the SF scheme, there is an opportunity to directly give the rights for *adat* community to manage and to own *adat* forest.

This research is a collaborative study with CIFOR under the project of Global Comparative Study (GCS) of tenure, and aims to contribute to the extensive research on tenure in Indonesia. The GCS focus on assessing the performance of tenure reform in 3 countries which are Indonesia, Peru and Uganda. Its objective includes the provision of information, analysis and tools that are useful for the design and implementation of such reform in these 3 areas. In Indonesia, the CIFOR project took place in 2 provinces –Lampung and Maluku –that differed in the characteristics of community and the implementation scale of tenure reform. While SF scheme can be successfully implemented in Lampung, in Maluku, SF scheme is not implemented as the community have less interest in it. Therefore, Maluku was chosen as the study site for research, not only because of the uniqueness of the community where the management of forestland and forest resource is still governed by *adat* practice but also because of the absent of the tenure reform there. Moreover, PERDA Provinsi 14/2005 is not a sufficient base to give the ownership of the *adat* forest to the *adat* community as it only recognizes *adat* institution as a part of society but not the area under *adat* jurisdiction.

To talk about *adat* is also to understand about their practice which in this research will focus in forestland and forest resource traditional practice. However, difference found in traditional knowledge is sometimes difficult for outsider to comprehend. People in *adat* communities gain knowledge often not in the methodological way that western people have, but "learning by doing". The tradition derives from a long term process of cultural learning and is proven to produce a system that fits local institutions (Klooster, 2002). According to Van ast et al (2014), contemporary sustainable governance theory also fits the core components of traditional system which is the combination of the systems such as taboos, sanctions, customs as well as tradition and the historical background of *adat* community. Therefore, the paper implies on the potential of long term management of forestland and forest resource carried out by *adat* community. Moreover, there are some evidences on the successful contribution of traditional knowledge on the conservation of biodiversity, rare species, protected areas, ecological process and sustainable

resource use (Berkes et al, 2001). Thus, proving the significance of traditional ecological knowledge in nature conservation.

Given the dynamics of *adat* institution and the fact that they exist until know arise a question on how *adat* still survive in this changing world. Modernization –which I define as the change in social, economic and technology –is an undeniable phenomenon that is faced by all of the community in Indonesia which might also have an impact to the way *adat* institution govern their forest. To prove Warman's (2016) statement on the vulnerable position of *adat* institution in rapid change of social, economic and technology, I will incorporate these factors in the research. The social change will also include the impact of religion to the forestland and forest resource governance. This is also based on Novaczek et al (2010) who stated that the strong connection between religious institution and *adat* community will increase the resilient of *adat* practice in governing the forestland and forest resources. A similar study carried out by Harkes and Novaczek (2002) have assessed the resilience of *adat* institution in marine resource governance in Maluku but little have been done to identify this resilience factors in forestry sector. There is lack of documentation on the long term evidence of *adat* institution's role in forest governance especially in West Seram, as most of the studies in Maluku have been concentrated on marine resources rather than forest.

There are two assumptions that I made regarding the long existence of adat institution in Maluku. It might be resulted from the way adat institution govern forestland and forest resource and also the condition of the forest which can still provide resource for the community. Yet, there might also be other factors that influence the long existence of this institution. Therefore, by documenting the underlying factors of the long existence of *adat* as well as the way they cope with modernization will help on identifying their impact on the implementation of tenure reform in Indonesia. Illustration of the problem in this research is presented in figure 3.
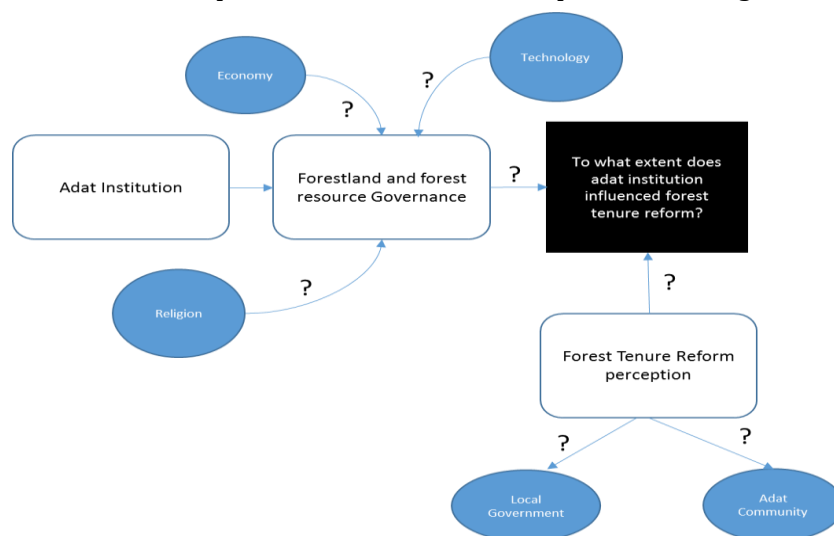
Figure 3. identification of the Problems in the research (author)

1.3 Research Objectives

The main objective of this research is to analyse the influence of *adat* practice and institution to the tenure reform in West Seram, Maluku, Indonesia. This objective will be split into several goals. One of the goals of this study is to understand how *adat* institution governs their forestland and forest resource. *Adat* communities' perspectives on how *adat* plays role in forestland and forest resource governance will be taken into account. This perspective is important to understand whether *adat* law governing their daily life in managing forest resource is still relevant or whether the change of law and practice is needed to fulfil the needs for the community. By identifying how they work, it is easier to reveal the practice of governing forestland and forest resource that have been carried out for generations and how this practice is still exist until now. The next goal is to understand the way *adat* institution cope with modernization –religious institution, technology and economy –and identify the change of *adat* institution and practice –especially in forestland and forest resource governance –as a result of its coping mechanism. I will also look at the perceived understanding of tenure reform by the government and *adat* community in study area. It is assumed that there will be a different knowledge of forest tenure from both sides, hence affecting the future implementation of forest tenure reform in the area.

By using institutional design principle and traditional ecological knowledge as frameworks this should give insights into the condition of the current *adat* institution in West Seram. This leads to the understanding of the aspects necessary for *adat* in governing their forestland and forest resource. Therefore, the implication of the current state of *adat* institution on the forest tenure reform can be identified.

1.4 Research Questions

In order to achieve the objectives of the study, the main research questions and sub-questions are formed as follows

To what extent does the current *adat* institution and practices influence future implementation of forest tenure reform in Maluku?

Sub questions were formulated to support general main questions. Those questions can be seen as follows

1. How does *adat* law play role in governing forestland and forest resource in West Seram?
   - What are the *adat* system governing forestland and forest resources (commodities) in West Seram?
   - Who is responsible and participate in rule making and enforcement of sanctions and conflict resolution regarding forestland and forest resource governance?

- Does the *Raja* and authorities have contact with member of other institutions? (NGO, donors, financial institution, district/local official?

2. How do economics, religion, and technology affect the change of *adat* institution and practice in governing forestland and forest resource?
   - How does logging company/timber plantation company influenced *adat* practice in forestland and forest resource governance?
   - What is the effect of market demands as well as the economic condition of *adat* community to the *adat* practice in the study area?
   - What is the effect of religious institution on the forestland and forest resource governance?

3. How do government and *adat* community perceive forest tenure?

1.5 Thesis Structure

The next chapter of this thesis consist of theoretical framework from modified design institution, initially proposed by Ostrom and also the theory of traditional ecological knowledge. Both of this theories will help in assessing the way *adat* institution govern forestland and forest resource management in the study area (chapter 2). Then, the methodology that I used for this research will be described in the next chapter (chapter 3). This chapter also includes the methods on selecting the study area, number of respondents to be interviewed as well as explaining how the data are analysed. Then, the results of the study are presented in chapter four, five and six. The brief background history of each village will be first described. The information aims to get basic understanding of the study area which include the history of the early migrants resided in the *adat* villages and the influence of 1999 religious on the *adat* institution in the study area (chapter 4). Then, *adat* rules in forestland and forest resource governance will be explained after that (chapter 5). Following the previous chapter, the influence of economics, technology and religious institution are also explained. This will include the role of church in the *adat* governance (chapter 6). Afterwards, chapter seven presents the information on the forest tenure reform in Indonesia and the implementation of the reform in the study area. Finally, discussion of the findings and the relation between two theories will be presented in chapter eight. This thesis ends with the conclusion and the recommendation for the future research, provided in chapter nine.

2
Theoretical Framework
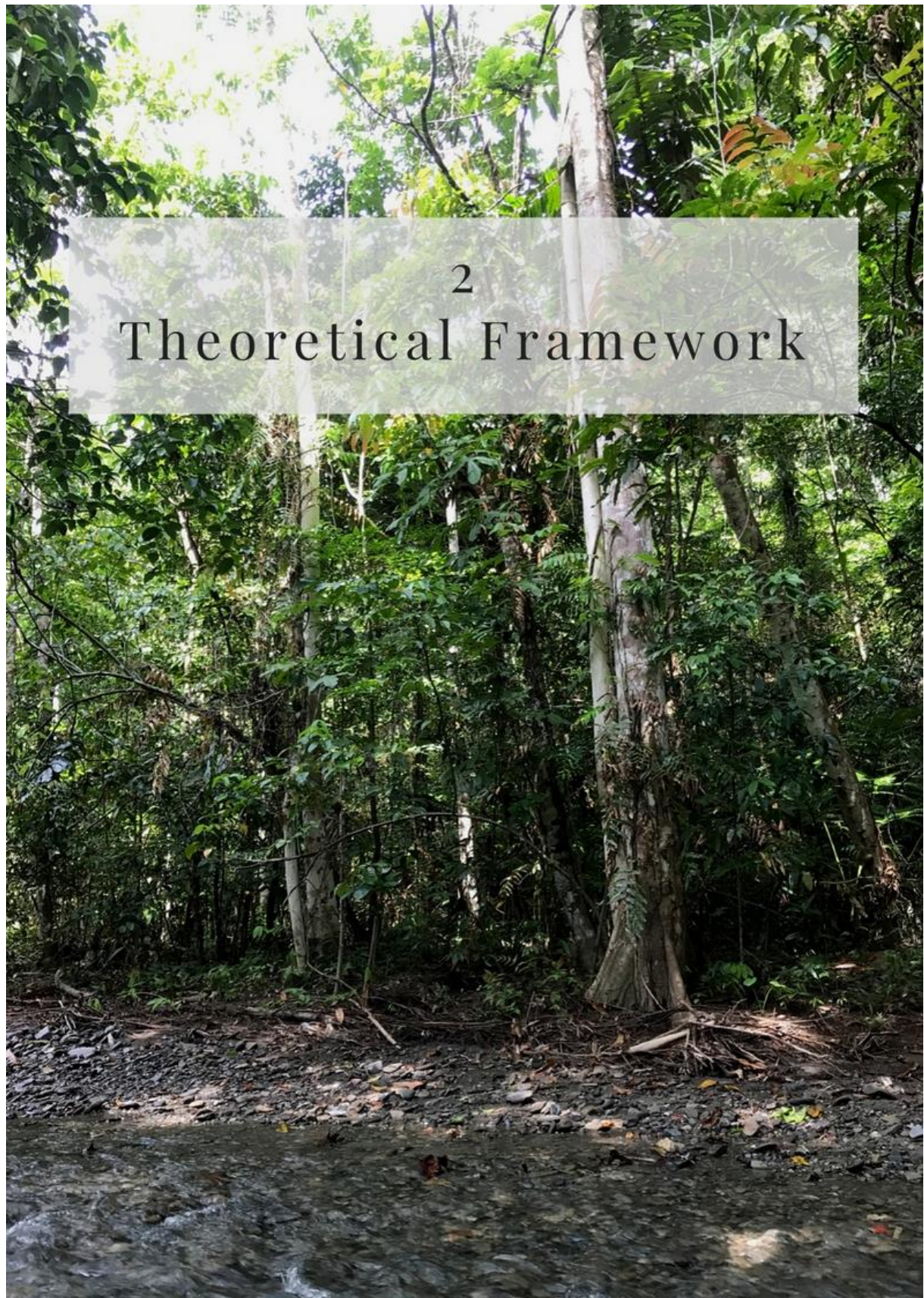
Chapter 2. Theoretical Framework

In order to understand the context of institution, this research is based on two theoretical concepts. Institutional theory together with the design principle will be described followed by the theory of traditional ecological knowledge (TEK). The first theory will help on assessing the performance of *adat* institution in forest and natural resource management. The second one is to help in identifying TEK in the study area. In the end, the relation of these two theories in community based forest management domain will be identified, thus will give insight on the influence of traditional ecological knowledge in the robustness of *adat* institution in West Seram, Maluku, Indonesia.

2.1 Institutions in Common Pool Resource Theory

In this study, institution in common pool resource theory will be used. Design principle which was first created by Ostrom (1990) will be used here as a basis to identify the institutional process of *adat* in West Seram. The design principles can be seen as the requirements for stable and robust institutions. Whether the *adat* institution fits or not with the design principles in the end, this study will still offer the insight of *adat* institutional process and what it means for the attempt on establishing tenure reform in the study area.

Common pool resource (CPR) has been broadly referred as open access resources. Wade (1987) described the attributes of CPR as a public good which have finite capacity. Meanwhile, Ostrom (1990) explained in her paper by giving two example of CPR that includes both renewable and non-renewable resources. CPR can be in a form of biological resource (forest or fishery) and a man-made structure (bridge). Uncontrolled used of these two types of resources will lead to decrease of common's capacity that is shared among the users. This phenomenon was known as the tragedy of the commons that first proposed by Garett Hardin (1968). Hardin identified two variables which are the cause of tragedy of the commons. The first variable is a common pool resource in which exclusion is difficult but there's a competition in resource consumption which leads to the excessive use of the resource. The second one is a condition in which the common is considered as an open access property that has no collective regulation of access and use of the resource. Therefore, Hardin argued that to prevent the depletion of the common resource, the state regulation or the privatization are needed. Whereas, Ostrom (2008) added on the role of community in various type of institutional arrangements such as co-management in managing the commons and further stated on the failure of Hardin to see the difference between "open access common" and "commons that are the joint property of a community"

Forestland has the complex characteristics of common pool resource that can be utilized by the *adat* community, that is the unstable product of the resource which vary in different places and

respond differently to any interruption. This complexity needs to be managed by creating an institution that can govern the resource (Andersson & Ostrom ,2008). Ostrom (1990) offered 8 principles that can be used to assess institutional capacity in governing the commons. Although these 8 principles have provided an insight to improve design institutions in managing the commons, social science researchers, comprise of Cox et al (2010), Agrawal and Chattre (2006), Ingram et al (2015), have also proposed a modified design for these principles. The modified principles of the institution can be seen in table 1.

Table 1. Modified design principles in managing the commons

Principle	Description
1	**Clearly defined boundaries**
	User boundaries : clear boundaries between legitimate users and non-users must be clearly defined
	Resource boundaries : clear boundaries are present that define a resource system and separate it from the larger biophysical environment
2	**Congruence between appropriation and provision rule and local conditions**
	Congruence with local conditions : Appropriation and provision rules are congruent with local social and environmental conditions
	Appropriation and provision : The benefits obtained by users from common-pool resource (CPR), as determined by appropriation rules, are proportional to the amount of inputs required in the term of labour, material, or money as determined by provision rules
3	**Collective-choice arrangements**
	Members affected by these rules can also participate in modifying the rules
4	**Monitoring**
	Monitoring users : Monitors who are accountable to the users, monitor the appropriation and provision level of the users
	Monitoring the resource : Monitors who are accountable to the users, monitor the the condition of the resource
5	**Graduated sanctions**
	Apply graduated sanctions to the members who violate the rules
6	**Conflict-resolution mechanism**
	Institutions needs to provide access to low-cost conflict resolution
7	**Minimal recognition of rights to organize**
	Institution have to ensure that the rule-making rights of community are respected by outside authorities (national, regional and local government)

8	**Nested enterprise**
	Responsibility of governing the commons (appropriation, provision, monitoring, enforcement, conflict resolution and governance) are organized in nested enterprise.
9	**Strength and resilience of institutional enforcement**
	The existence of strict institutional enforcement which is linked to the local condition
10	**Durability and longevity of the institution**
	Institution is able to strive for a long period of time. From the study of Agrawal and Chattre (2006), they found a significant effect of institutional duration to the forest condition –long duration of institution leads to a good condition of forest. Therefore, a good condition of CPR in the study area can be a sign of a good and stable institution
11	**Participation of Actors**
	Decision making process in forestland and forest resource governance includes the members of *adat* community
12	**Location of decision making clear to actors**
	Decision making of the utilization of local CPR is clear for all the members of community, in this case whether the *raja* become the central decision maker or other actors.

The study of institutional effectiveness in governing the commons is important as *adat* community's dependency on forestland and forest resource is high. For that reason, an assessment of their performance in governing the forestland and forest resource is important to help in identifying the aspects of *adat* that needs to be improved. The use of 12 design principles could result in a tool which is useful to inform both the government and *adat* community per se.

In this study, institution design principle theory will help in answering the 1st and 2nd research question. In the end, the use of this theory in analysis will aid in providing recommendations for designing robust *adat* institution. However, it is important to note that trust, legitimacy and transparency of institution is also needed to be emphasized and not merely rely on the characteristics of the community (Cox et al, 2010).

2.2 Traditional Ecological Knowledge

Traditional ecological knowledge (TEK) has been known as a knowledge owned by the indigenous community in managing natural resources. Berkes (1993) defined TEK as "cumulative body of knowledge and beliefs handed down through generations by cultural transmission about the relationship of living beings (including humans) with one another and with their environment". Therefore, TEK can be concluded as a traditional knowledge derived from a long time process

which combines knowledge, belief, art, moral, law and habits (Siahaya et al, 2016). Unlike modern science, this knowledge has been passed on for generations through various medias that includes stories, songs, and training (Parotta et al, 2016).   The paper further shows the evidence on the important of TEK in forest management practice. However, many social scientists have been doubt about the role of indigenous –or *adat* in this case –knowledge in conservation, stating that the small size of community have small impact to the natural resources. Drew (2005) explained on the implementation of taboos or restriction within TEK that sometimes aim to optimize a long term gained rather than to protect animals or plants species. Yet, the importance of this taboos knowledge still needs to be emphasized, especially in the area where the indigenous community is still strong, which also the case of *adat* in West Seram. Colding and Folke (2001) further address the benefit of taboos to the maintenance of natural resource and formulated six types of resource and habitat taboos (RHTs). These RHTs includes:

1. Segment taboos, which control the resource extraction,
2. Temporal taboos, which control the access to the resource in time
3. Method taboos, which control the methods of extraction
4. Life history taboos, which control the extraction of some stages of species
5. Specific-species taboos, which protect particular species in time and spaces
6. Habitat taboos, which restrict the access and use of resources in time and spaces.

The use of TEK is often coupled with community's belief in supernatural forces (Sasaoka & Laumonier, 2012). The enforcement of rules related to taboos then become more efficient as it will result in less need on the monitoring system by the 3rd party (e.g. forest warden, police and guards) (Colding&Folke, 2001). However, as taboo is closely related to the relationship between the community and their ancestor's spirit, different condition can be encountered in each of the villages. In other words, it is a site-specific case where in one place the taboos might still be implemented, while in other place, it might have ceased.

The significant of TEK on forestland and forest resource governance have led to several initiatives that try to integrate the knowledge to the formal science. Integration of community's knowledge and formal science ensures the efficiency of forest management program, suitable for local condition and at the same time filling the gap found in traditional system with the modern science. Such program will also be supported by the community, leading to long term governance of forestland and forest resource (Drew, 2005). The use of TEK theory will be useful in answering the 1st research question on the detail of *adat* practice relates to forestland and forest resource governance. In the end, the information derive will be analysed together with the previous theory –institutional design. The aims are to find the relation between institutional design and TEK, and

to understand the way these theories complement each other to create a sustainable forestland and forest resource governance, carried out by *adat* community in West Seram, Maluku.

2.3 Conceptual Framework

Institutional design theory and traditional ecological knowledge are used together to give understanding on the performance of *adat* institution in governing forestland and forest resource in West Seram. This is based on the research carried out by Cinner et al (2012), Olson & Folke (2001) and Ostrom & Cox (2010) that design theory is not sufficient to explain the condition of such institution in a long term governance of forestland and forest resource. Design institution is a useful tool to indicate what needs to be improved from an institution to be as effectively as possible. But, that doesn't mean that the institution will manage the resource sustainably. On the other hand, the existence of ecological knowledge is not possible to be implemented with the absent of an institution. An assumption of this study was that the ability of *adat* institution in governing the resource for a long time is also a result of the application of traditional ecological knowledge within their *adat* practice.

In this study, I identify *adat* institution condition using design principle. Then, traditional ecological knowledge in *adat* practice is also examined, result in the way *adat* maintains their practice in the presence of modernization. Finally, with the understanding on how community and government see the concept of forest tenure I can analyse the influence of the current condition of *adat* institution to the future implementation forest tenure reform in West Seram. Figure 4 illustrates the way I operationalize the 2 theories into my sub research questions.
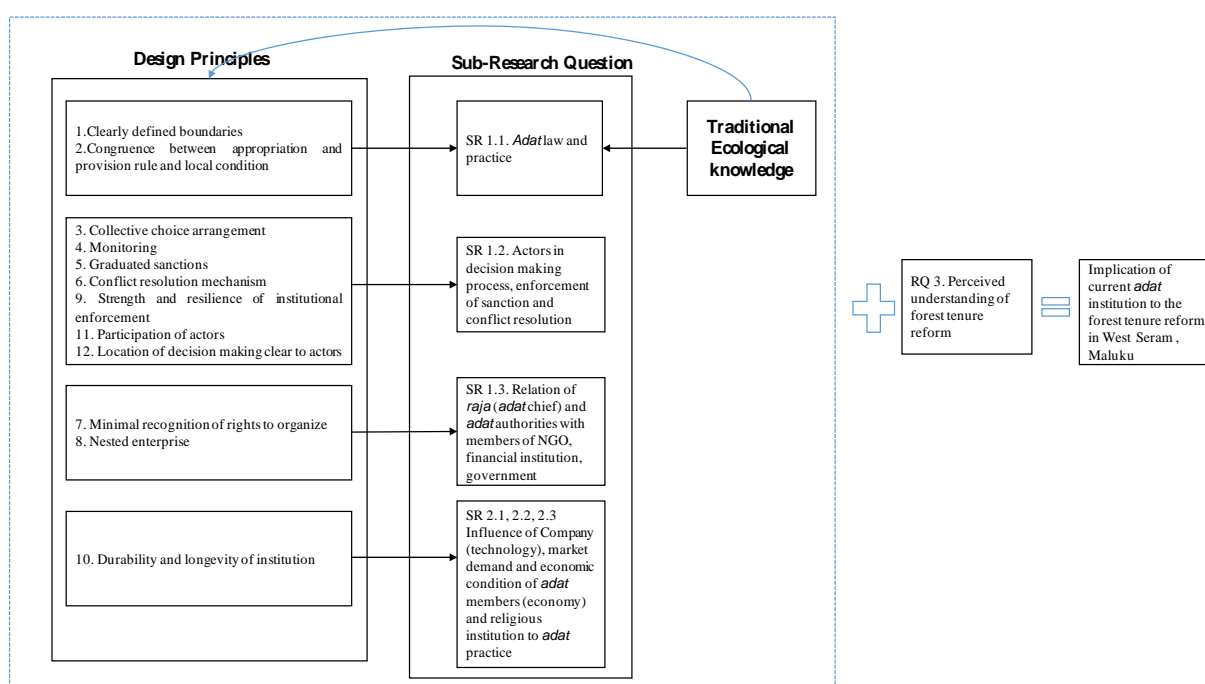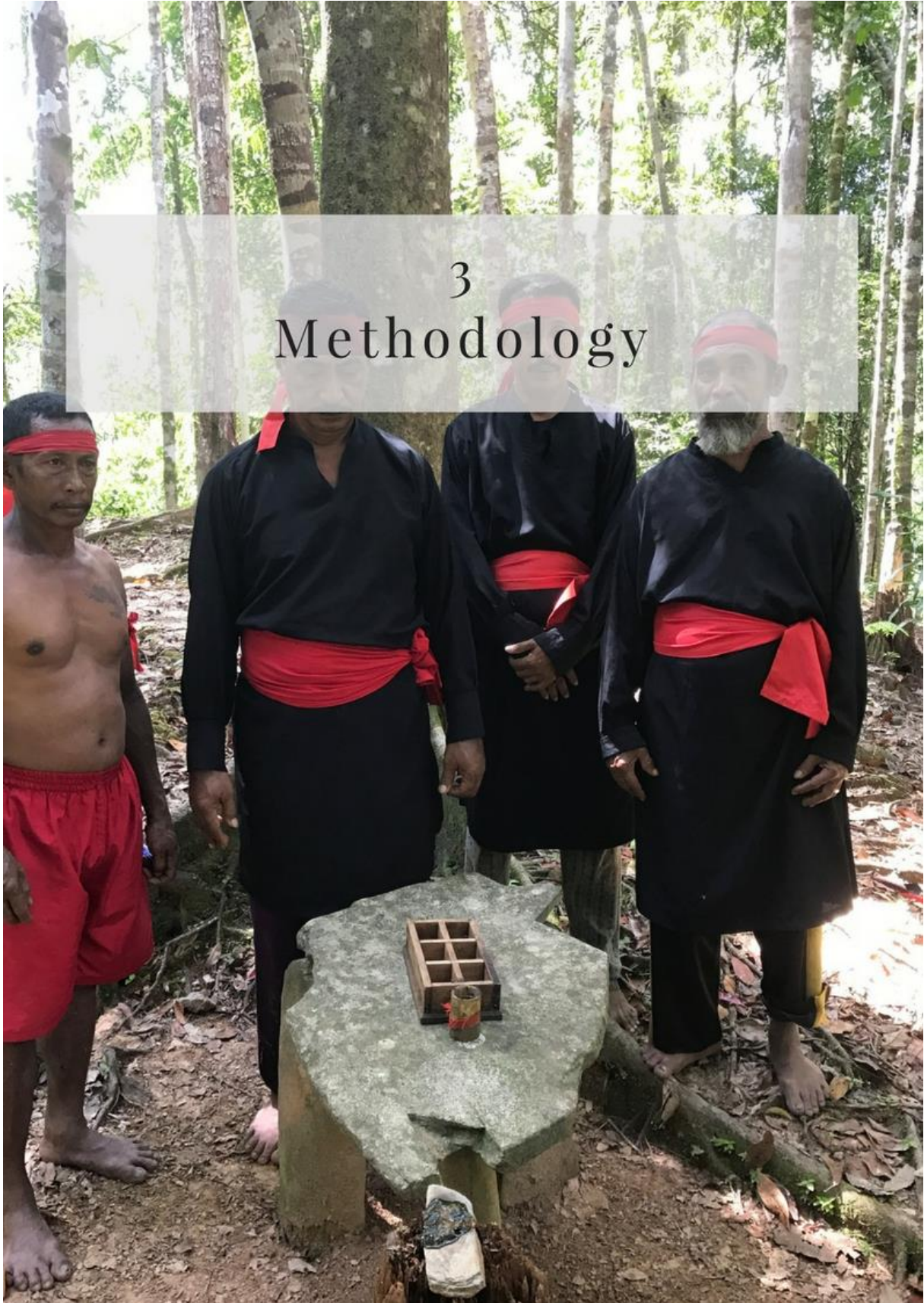

Figure 4. Operationalization of Theories (author)

3
Methodology

Chapter 3. Methodology

In this chapter the methodology used in this research will be described. For this, I divide the chapter into 3 categories of before, during and after collecting the data. The first part consists of activities before I conduct the field visit which comprise of research design, site selection and population size for the interview process. Next is the activity during the data collection. During data gathering, Semi-structured interview was done in parallel with the participant observation. Finally, I explain the methods that I used for analysing data.

3.1 Before fieldwork

3.1.1 Research design

This study was designed as an explanatory case study. Zainal (2007) explained in his paper that the data used in case study is more specific which lead to a selection of small study area and few respondents of the study. Within this case study, this research followed explanatory category in which it seeks explanation of the research findings. A qualitative approach is used to gain an understanding of a phenomenon. Sullivan & Saergant (2011) explained in their paper that qualitative research is more on describing and exploring a situation rather than focusing on the numerical factor.

In order to understand the way *adat* institution work and govern forestland and forest resource in West Seram, comparative study was chosen. Comparison between three different *adat* villages in West Seram result in three different understanding on the condition of *adat* institutions and the way these institutions cope with modernization. Different biophysical condition, as well as historical background will give a different condition of institutions even though these villages are located on the same island. Therefore, such an insight on the central point of what makes them still in function until now can be made.

3.1.2 Site Selection

I choose *adat* forest to be part of this research because of its strong connection to Indonesia's root and history. In Maluku specifically, the term *adat* is still used –as a result of decentralisation and a way to reconcile Maluku people of different religions (Bräuchler,2010) –with a traditional practice called *sasi* as a tool to govern the resource. This study makes use of a collaboration with CIFOR's GCS Tenure project by selecting 3 *adat* villages out of 5 villages in West Seram for this research.

CIFOR chose the five villages in West Seram as of their study sites in Indonesia due to the community's high dependency on the forest with *adat* practice in place (Personal communication with CIFOR researcher, 2017). These 5 villages face different kind of tenure condition which can represent the whole tenure problem in West Seram. I initially intended to divide the village based

on how well *adat* institution operates, or in other word, I divided into strong *adat*, moderate *adat* and weak *adat*. However, the strength criteria of *adat* institution is impossible to be measured in the first place. Thus, with the help from CIFOR researcher, 3 villages were chosen from the initial 5 villages based on the biophysical condition, composition of local *adat* people vs migrants, the overlapping area of *adat* land with state protected forest and how well community can cooperate with the researcher, hence made the research activity easier. The 3 villages chosen were Honitetu, Mornaten and Lokki.

Figure 5. Map of the study site (Google maps)

3.1.3 Population Size

Qualitative study requires a smaller number of respondents than quantitative study. In qualitative study, the more data we obtained does not lead to more information (Mason, 2010). Consequently, it is hard to find literatures which provide information on the sufficient number of sample for qualitative study. Nonetheless, van Esch & van Esch (2013) found that 7 sources of respondents are adequate as a basis for sample size in qualitative study. Their statement was also supported by Bertraux (1985) who indicates that minimum of 15 respondents is considered to be sufficient. Therefore, in this study, there are total 44 people for the interview with 40 of them were from *adat* community.

Table 2. Sample Size

Stakeholders	Number of Respondents
Adat people , Honitetu Village	13
Adat people, Mornaten Village	14
Adat people, Lokki Village	13
Forest Management Unit (FMU)	1
Regional Development Planning Board (BAPPEDA)	1
Forestry Agency (Dinhut)	1

Social Forestry and Environmental Partnership Office	1
Total	44

As a study of *adat* institution in Maluku, I focused my research on the *adat* community living in the 3 villages. But, to gain different perspective and the whole picture of forest tenure reform in Indonesia, some government officials were also included in the research. These stakeholders include the government officials from Regional Development Planning Board (BAPPEDA), Forest Management Unit of West Seram (KPH), Forestry Agency of Maluku Province (*Dinas Kehutanan*/Dinhut), and Social Forestry and Environmental Partnership Office of Maluku Region (BPSKL). These stakeholders are responsible for land planning as well as for the management of forestland and forest resource in Maluku Province. Therefore, their role in forest tenure reform planning in the area are significant.

3.2 During fieldwork

3.2.1 Data collection

The starting point of my research was in CIFOR office in Bogor where I arranged my research plan including the villages for this study and the cost spent for this field work. Then, I flew to Ambon from Jakarta and spent 2 days –for taking care of my research permit –before crossing the strait to Seram Island. The first village was Honitetu, located uphill and dominated by indigenous "*adat*" people. The day spent in Honitetu was 10 days.

On day 11, I continued my journey to Mornaten which was initially planned to be the last village to be visited. However, *Raja* in Lokki urged me to visit them at certain date as there was an *adat* festival carried out in Lokki and they offered me an opportunity to see the festival myself. Therefore, I changed my plan and visited Mornaten before going to Lokki.

Both Lokki and Mornaten are located on the shore but the difference was on the composition of migrant *vs adat* people. Mornaten is also passed by the main road of Trans Seram and the community plantation can be seen easily on the side road. I spent 6 days in Mornaten which was shorter compare to the other villages in which I spent 8 days in Lokki. This was due to strict time that I have to be in Lokki before their *adat* festival started, leaving me with only 6 days in Mornaten. Different from Mornaten, *adat* in Lokki face a pressure by the growing number of migrants. The indigenous "*adat*" people only reside in the main village of Lokki while the other 5 sub villages were filled with migrants.

After carrying out my research in Lokki, I went to the capital city of West Seram (Piru) and Maluku Province (Ambon). I stayed in Piru for 2 days to do some interviews with people from Bappeda

and KPH. Then, I headed back to Ambon to meet some government officials from Dinhut and BPSKL.

3.2.2 Semi-structured Interview

During data collection, I performed some key informant interviews, that is an interview conducted with people who masters in *adat* knowledge and those who know about tenure problem and reform in the area. In this case, the key informants were the *raja*s, *adat* elderly and government officials. Whereas, I also did semi-structured interview with *adat* community and carry out a daily life observation –together with informal interview – of them.

The criteria for *adat* people for the interview was based on their sex and age. But, I did not put those criteria for the specific forest users (SFU) –they can be men or women –as I assumed at first that it will be quite hard to find gendered-specific job for this interview. The idea behind SFU interview was to find the information about traditional ecological knowledge implemented in three *adat* villages. To obtain information on the *adat* practice in the past, I conducted three interviews to *adat* residents with age of more than 50 years old for each villages. Older people were chosen with an assumption that they have experienced the change in *adat* practice and are likely to have more knowledge on traditional practice in governing forestland and forest resource. Table 3 shows the number of respondents based on their age and sex for the interview. Detail information on the respondents can be seen in appendix II.

Table 3. Number of *adat* community respondents based on age and sex criteria

Respondents	Age Criteria	Number of respondents
Men	18-30	2
Men	31-50	2
Women	18-30	2
Women	31-50	2
Elderly	>50	3
Specific Forest Users	-	2
Total		14

Prior to the field work, I prepared a list of questions for the interview and the questions can be seen in Appendix III. These questions acted as a guideline to give an idea of the information that needs to be obtained, although in practice some questions were added or left out for different type of respondents. All the interviews were conducted in Indonesian Language (Bahasa) and a translator was not used as *adat* community in West Seram spoke Bahasa with Ambonese accent. Before the interview begun, I gave a brief information of my research as well as introduced myself

as a student who carried out a research in their *adat* village. Permission to record the interview was also asked and only one person in Mornaten who did not give a consent put his name on the research. Money was given to each of *adat* respondents after the interview ended. This followed the recommendation from CIFOR to give compensation in monetary form. Whereas for the government officials, a gift of batik fabric was given.

Semi structured interview was chosen because of its flexibility which offer a type of open ended questions while interviewer still holding the control over the interview process. However, in reality, it is quite challenging to control the interview process as it risked on the loss of respondent's interest of the interview process. Thus, as also experienced by Pauwelussen (2017), semi-structured interview is not sufficient to obtain the information that we also need to engage in day-to-day activity of the community to reveal some "interesting issues" which somehow relates to the information that we need for the study. Informal interaction, in this case just a regular conversation with them had a huge effect on how they express themselves by talking more freely and being less uptight. In the case of Honitetu Village, the *Raja* was not explicitly willing to be interviewed. He gave scattered information during our daily interaction in the morning or at family dinner at night.

3.2.3 Participant Observation

Observation is one of the crucial methods which helps in understanding the phenomenon of the objects being studied. Bernard (2011) emphasizes the importance of incorporating observation along with other methods such as interview or focus group discussion. In this research, I will participate and record *adat* community's daily life activity as well as the *adat* institution practice without the use of deception. *Adat* people acknowledge my presence as a researcher and that they're being the object of my research. The product of this methods is field notes which sometimes provide explanations of a situation which cannot be obtained by only doing an interview. Field notes also act as a source of verification on the information derived from interview, thus increasing the validity of data.

In Mornaten and Lokki, I involved in daily interaction of *adat* community in the village especially women's activity in the kitchen or at home in the afternoon. I observed their dependency on the firewood for cooking, on the products harvested from their home garden, the implementation of *sasi* in the plantation near the seashore –a place where my 'host lady' took me to during the afternoon, on their dependency of the village's river, and on the practice of opening a land for a new plantation. However, constraints were experienced for my observation in Honitetu village. I was not able to observe some activities such as hunting –although for the other villages, I did not observe this activity too –and extraction of non-timber forest product –saying that the forest is

too far and it is not possible for a small girl like me to go there. There were no village meeting or *adat* meeting during my visit, thus none of the observation derived from that activity.

3.2.4 Challenges

The fieldwork started with obtaining a research permit from provincial government in Maluku. Obtaining a permission from provincial government is usually a long and tiring process but I was able to get it on the beginning of my second day in Ambon. The uncertainty on when to get the permission can be bridged by asking someone who has a relative working in the government and ask their help to keep your permit on track. I also visited the office and check the progress every day.

As I mentioned earlier, this study follows CIFOR's project of GCS-tenure, hence CIFOR helped me a lot during my preparation to the field. CIFOR Officials, *Ibu* Nining, was so helpful and prepared me with brief information about practical difficulties which includes the access and cost that I was kind of missed in the beginning. In the field, a lecturer from Pattimura University –local university in Ambon –accompanied me during the moving process from one village to another, whereas during the data collection process in the villages, I lived together with a family from *adat* community and was assisted with a person appointed by the *raja*. I realised that with the presence of an assistance, I felt more safe and less worry. The downside was that their presence during interview process could actually affected the way my interviewee answered my questions. I noticed it when an interviewee talked hesitantly or less confident when my assistant was there with me during the interview. Once my assistant left, my interviewee talked more open and freely.

My short period of staying also became my limitation as it will be hard to gain *adat* community trust specially to gain information on 'sensitive' thing such as conflict, and any changes in *adat* practice in the area. The challenge was to be in my position as a researcher but at the same time to be "one of them" so that they start being comfortable about my presence there. I made an effort to adjust myself by eating together, engage in conversation in the afternoon, helping them in the kitchen, watching some reality shows on television every night together, playing card game and gossiping at night. I also tried to adopt their accent when speaking with them. That was also the reason why I did not hire any translator. It was challenging at first to speak with them because they talk so fast and there were some new words that I had to learn in the beginning of my staying there.

I gained a benefit from my position as an "Indonesian who is studying in the Netherlands". Most of *adat* people there seemed to have connection with Dutch colonialism that every time they knew that I am studying in The Netherlands, they became more interested and started to ask me to visit museum in The Netherlands if I want to know more about the history of the village. Most of the

adat authorities in each village even asked me to find the document about their village in Dutch museums. The topic of "The Netherlands" regularly became the first topics during my interview process, especially with the key informants –*raja* and elderly. Aside from that, I learnt that I need to be careful when talking about some terms with them cause the words could have different meaning for them. For instance, the word forest meant plantation for *adat* community as they do farming activity inside of forest and the word government could have 2 meanings for them, state government and *adat* government (*pemerintah adat*).

My research was more or less influenced by *Raja*, especially in the Honitetu. Another case was on finding the individual who fitted my criteria for the interview, which could actually create bias. Interesting thing I found was that they –the *raja* and my assistant –criticized the age criteria and tried to find someone that can give a complete information about *adat*, and they focus on the male with age more than 40 because they said that young people know nothing about *adat*. Therefore, I need to be careful and to keep track on the age of my respondent. I re-confirmed their age after the interview ended and found that 2 of them did not fit my age criteria. Usually the men I expected and said to be those in their 20 was already in their 30. if that's the case, I tried to find the remaining interviewee myself after trying to explain the importance of the age for my research. In this village I did not gain permission to visit the forest or to follow the hunter due to the long distance from the village to the forest. Thus, observation could not be made and I used CIFOR's data for triangulation process instead of from my own observation.

3.3 After fieldwork

3.3.1 Secondary Data and Literature

The use of secondary data is necessary to ensure the efficiency of the study. Secondary data was derived from CIFOR 1-year field work in the project of GCS-tenure. This extensive data was in the form of questionnaire result and cover mostly on the basic information of community's age, ethnic group, gender, religion, occupation, ownership of the land and forest resource extraction. Therefore, gave an overview on the basic information of the three villages. Other data such as livelihood activities, perception on the change of forest condition, community's perception on the rules, forest commodities, community participation in the decision making process of forest use and management as well as the process of resolving conflict were also presented in CIFOR's field work result, thus can be used for triangulation process to ensure the validity of the information obtained during my data collection. Laws and regulation in managing Indonesia forestry as well as the regulation for *adat* forest are also taken into account in the analysis. In addition to that, I used academic literatures –aside from the frameworks used –to support my research findings.

3.3.2 Data Analysis

Analysis of the data followed ethnographic analysis in which the data were "transformed, translated or represented in a written document". Classification of data aims to find some patterns, detect the inconsistency and contradiction of the data, and produce a conclusion on the phenomenon (Thorne, 2000).

During the fieldwork, I was able to transcribe in 24-hour basis for 2 weeks and did not manage to do it daily afterwards, therefore some interviews left were transcribed after the fieldwork ended. Field notes were organized as well to make the cross-check information process easier. When transcribing was done, coding process started. In the case where the field notes could not be made, CIFOR data were then used as another source for data triangulation. Unlike field notes that can be coded, CIFOR data were in the formed of qualitative data. Thus, graphs and number were derived and used to support the explanation of some issues in the analysis.

 The software used for coding the data was Atlas Ti. (version 8). Coding is an important step in qualitative data analysis because of its role in grouping important information that makes data connection easier (Basit, 2003). I tried to code the interview based on the content of the information. For instance, I created several codes that relates to hunting activity which includes "frequency of hunting", "animal to be hunted", "kilometres spent for hunting". After coding the information, I then grouped the codes based on my sub-research questions. Cross-checking process were done in parallel to the analysis process –after coding –with the use of CIFOR's data or field notes that I took during the informal interaction and observation.

I analysed the connection of information from the code grouped. I first explain the history of the villages and how it is important to *adat* people. There might be a relation between the history to the *adat* current state. This section also outlined some practices they applied in governing forestland and forest resource in the area. After that, I described the existence of religious institution, the influence of market and their economic condition as well as the technology to their *adat* practice and institution. Next section, I tried to analysed *adat* people's perspective as well as government perspective on the forest tenure. The gap found on their perspective might affect the implementation of tenure reform, therefore, it is important to take both actor's view into account in analysis. From all of the result that have been analysed, I applied both theories of design institution and traditional ecological knowledge so that I can create a meaning out of it and in the end draw a conclusion for the study.
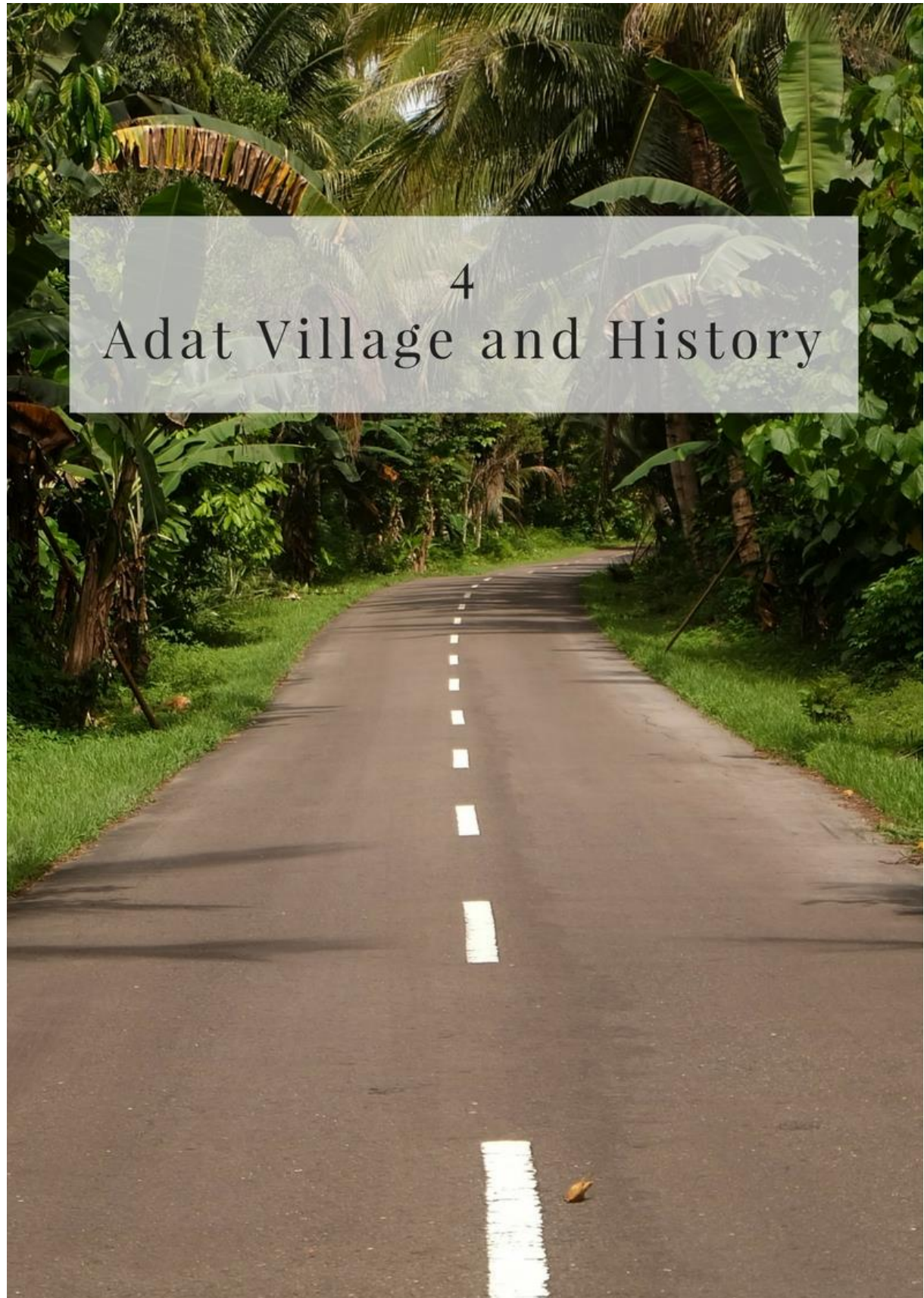
4
Adat Village and History

Chapter 4. The *Adat* Village and History

This chapter explains the history of three *adat* villages in West Seram. The story concerning the history of the *adat* village will act as background information or the "entrance" to this study. Certain parts explained in this chapter have a connection with the 1st research questions, whilst some others (i.e. the history of the village and the story of the sectarian conflict in Maluku) act as a background information that supports the explanation of some issues in the subsequent chapters. I have divided the chapter into several sub-sections. First, the history of the villages and the facts behind the actor who told the story are described. Subsequently, the way *adat* institution divides their land is also presented. Information on the traditional land division of the *adat* is an important phenomenon concerning the way they see and understand the ownership of *adat* land. The tradition of the land division can be seen as a practice that can describe the current condition of the forest and land in the village. Moreover, compliance with *adat* rules regarding this division can be seen here. I also describe the leadership of the *adat* in relation to the way *adat* people choose their *raja*, besides the influence of new regulations on the perception of the *adat* leader. Therefore, the implication of *raja* regarding the future implementation of tenure reform can be formulated. In the end, I describe a 'life changing' event in West Seram, the religious conflict in 1999, which based on several researchs, became the basis of the *adat* revival in the area. It is essential to note that I will not give a complete picture of the history of the villages, having stayed on average for only eight days. Instead, this chapter is a compiled story, told by different people I encountered during my field work in the three villages in West Seram.

4.1 The History of the Villages in West Seram

The three villages–Honitetu, Mornaten and Lokki –share similarities in terms of the way their ancestors migrated from the old village to the present land. Nevertheless, I see a difference on the way they treat their old village. People in Mornaten consider their old village to be too far away and too sacred. Most of the community only know it from the stories that their parents told, passed on from generation to generation. Unlike in Mornaten, most of the people in Lokki are aware of and visit the old village quite often. Every three months they undertake an official visit in an attempt to strengthen their memory of their roots and identity as *adat* community of Lokki. In Honitetu, I rarely heard people mention about their old village and its significance as the *adat* community of Honitetu. The interview conducted with key informants only revealed information on the nomadic habits of the past –who also showed the way *adat* people in Maluku used to live in general –but not the sacredness of this old land.

During my interview in Honitetu, all of the key informants could clearly explain their origins, from the very first village, how they divided the *adat* area into smaller sub villages and the name of

their first king who was initially called sultan and subsequently *raja* when the Dutch came to their place. All this information was neatly documented together with the maps of their *adat* territory. The "readiness" of the *adat* group in Honitetu can be explained by Bräuchler's (2010) research which revealed what the Honitetu community thought about the *adat* revival in the 1990s. *Adat* activists even formed a few working groups in their attempt to revive the *adat* and to create a consistent story relating to its history.

In Mornaten, I discovered that not all key the informants had mastered the history of the *adat* in their village. Only one person, a 46-year-old man who also happened to be the leader of the village consultative body (BPD) could give the detailed history of Mornaten, even though no one can confirm if the story is genuine. Therefore, the history of the village in Mornaten is rather confused.

The situation in Lokki showed a different pattern with respect to how the key informants expressed the history of the *adat*. Key informants in Lokki believed that Dutch colonialism had destroyed their *adat* system. They told a story about how the Dutch killed their ancestors, resulting in the displacement of the "native" Lokki people. By the time the Lokki people left their land, a lot of migrants came to Maluku Island from various other places to work for the Dutch. The number of migrants continues to increase. Looking at the history of the Lokki people, they experienced several displacements unfortunately compared to the two other villages. The first occurred during colonialism, whlist the second took place during the religious conflict in 1999. The second event specifically led to growing numbers of migrants in the sub-villages of Lokki. The vast area under *adat* jurisdiction makes it even harder to monitor the migrant population. Lokki people reside in one village while the other six sub villages –which is still considered *adat* land – is occupied by the migrants.

4.2 How did the *adat* community acquire their land?

Generally, land division in the three villages followed more or less the same procedure. Land was divided into clan land (*lahan marga*), individual land (*lahan individual*) and village land (*lahan petuanan*). Clan lands consist of individual lands. In other words, one must belong to a certain clan in order to have their own individual land. In the future, these lands will be inherited by their children. Usually, the son is considered to be an important priority. The women in contrast, will rely on their partner's land. This means that the husbands will share the land with their wives. A further way for the women to benefit from the land is by tending the land under *dati*, as revealed by my interviewee in Mornaten. Ducos (2014) who conducted research in Central Maluku explained that *dati* is a system where the land is allocated to everyone in the family. This means that the land is no longer divisible and everyone in the family has the same rights to the land.

In Honitetu, most of the lands had been divided between each of the clans. It should be mentioned that management of the natural resources –both forests and rivers –is the responsibility of individuals. No one allowed to encroach on their neighbour's land without permission. An exception is made for hunting activity in which the hunters are allowed to hunt everywhere unless there is a *sasi*[2] being applied in the area. Furthermore, although ownership of the land strictly applied, they believe that the animals are owned by anyone.

My interview in Lokki revealed the absence of land division in pre-colonial times. Lokki's *raja* explained that those who manage the land first are the owners of the land and who want more land need to inform the head of the clan before acquiring a new spot in the forest. However, the practice does not always follow the indicated rule. I was also told that there is no need to inform anyone when acquiring new land.

"...*Just take any empty land in the forest (ambil ambil saja)*!" (Salmon Patianakota, personal interview in Lokki, 23-10-2018)

4.3 *Raja* and its Consultative Body

Each of *adat* institution in the three villages has a specific way of functioning. Each has a different understanding of *raja* and the way the *adat* institution works in *adat* society differs. In 1974, through enactment of Law No.5 of 1974, GoI imposed a system to unify every village in Indonesia, resulting in the replacement of the traditional system comprising *raja* and *saniri*[3] to the village head and village consultative body through a democratic system. However, the change in the former regulation to Provincial Regulation No. 14 of 2005[4] on "the return to *negeri* as the *adat* law community in the territory of the Government of the Province of Maluku" created a confusion among the *adat* institution in West Seram. This was due to the absence of regency regulations – that provide more detailed procedures on the election of the king and their legal inauguration. The effect is the uneven implementation of the *adat* traditional system in each of the *adat* villages in West Seram.

In Honitetu, the *raja* is still chosen based on the hereditary system. Many people believe that choosing a *raja* who is not entitled to it will bring bad luck.

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[2] *Sasi* is a traditional term and practice of the *adat* people in Maluku which literally translates as prohibition. In forest and natural resource management, when sasi is being imposed on a certain type of resource, this means no one is allowed to take the resource being sasi-ed. I use the word sasi both as a noun and a verb. More in depth explanations are given in Chapter 5.

[3] Saniri is a traditional term which refers to the adat institution body/adat council. Some adat villages in West Seram still use this term, while some others use the term BPD.

[4] Provincial Regulation No.14 of 2005, also known as Perda in Indonesia, acts as a legal umbrella. The regulation acknowledges the presence of the adat institution and culture, although the statement in its articles is too broad and vague.

"...the raja must be an adat chief. He can't be replaced by someone else who is not entitled to it. The raja in Honitetu must be Bapa Pit (refers to the name of the *raja*) *because it has been the system here for generations. If anyone from a different clan replaces him, the person will die ..."* (Christina, personal interview in Honitetu, 05-10-2017).

By way of informal conversation with the locals, it is apparent that various people do not favour this system and prefer a more democratic way. The internal clash in the *adat* resulted in a *pejabat* or temporary village head being appointed (field notes, 6-10-2017). Nevertheless, the attempt of the *adat* authorities to preserve *adat* tradition, especially in the lineage system related to the *raja* election was still apparent.

Saniri in Honitetu was still recognised by the *adat* people who live there. They still refer to the *adat* council by means of its traditional term *saniri,* instead of BPD. Conversely, the situation in Mornaten and Lokki is slightly different. Here, *saniri* is broadly known as BPD among the *adat* people, although the village head is still called *raja*. I was told that there are no differences regarding the traditional terms *raja* and *saniri* vs the modern term imposed by the government or the village head and BPD in the villages of Mornaten and Lokki. Moreover, people claimed that the *raja* or *kepala desa* was chosen based on a democratic system where the candidates are selected from each of the clan heads (*marga*). In Mornaten, a respondent explained that the hereditary component in choosing the *raja* is not a definite factor, but more a choice made by the community.

"...whether the raja was based on certain lineage or not depends on the community. If they though that the deserved raja should came from a specific clan, they will choose that candidate..." (Yheskel Nuruwe, personal interview in Mornaten, 15-10-2017).

4.4 The Early Beginnings of the Migrants and the 1999 conflict

The religious conflict that occurred in Maluku in 1999 had a diverse effect on all three villages mentioned in my study. It had a profound effect on the *adat* people in Lokki and most of the Lokkis in the area were displaced once again. Their presence as the only 'indigenous' village dominated by Christians when the other sub-villages were predominantly dominated by Muslim, speeded up the clashes among these people. The Lokkis were pressured and fled from their land. As the villages of Honitetu and Mornaten were virtually isolated, this meant that one religion was able to dominate, which made both villages relatively safer.

During this conflict, migrants kept coming to the sub-villages of Lokki. Their presence now is one of the factors related to the insecure land tenure of the Lokki people. This made worse by the political campaign which played a role in the resistance of the sub-village residents. One of the key informants pointed out the effect of the political campaign on the migrants' demand to free

themselves from the central village of Lokki –grabbing the land of the *adat* people in Lokki (personal communication, 21-10-2018).
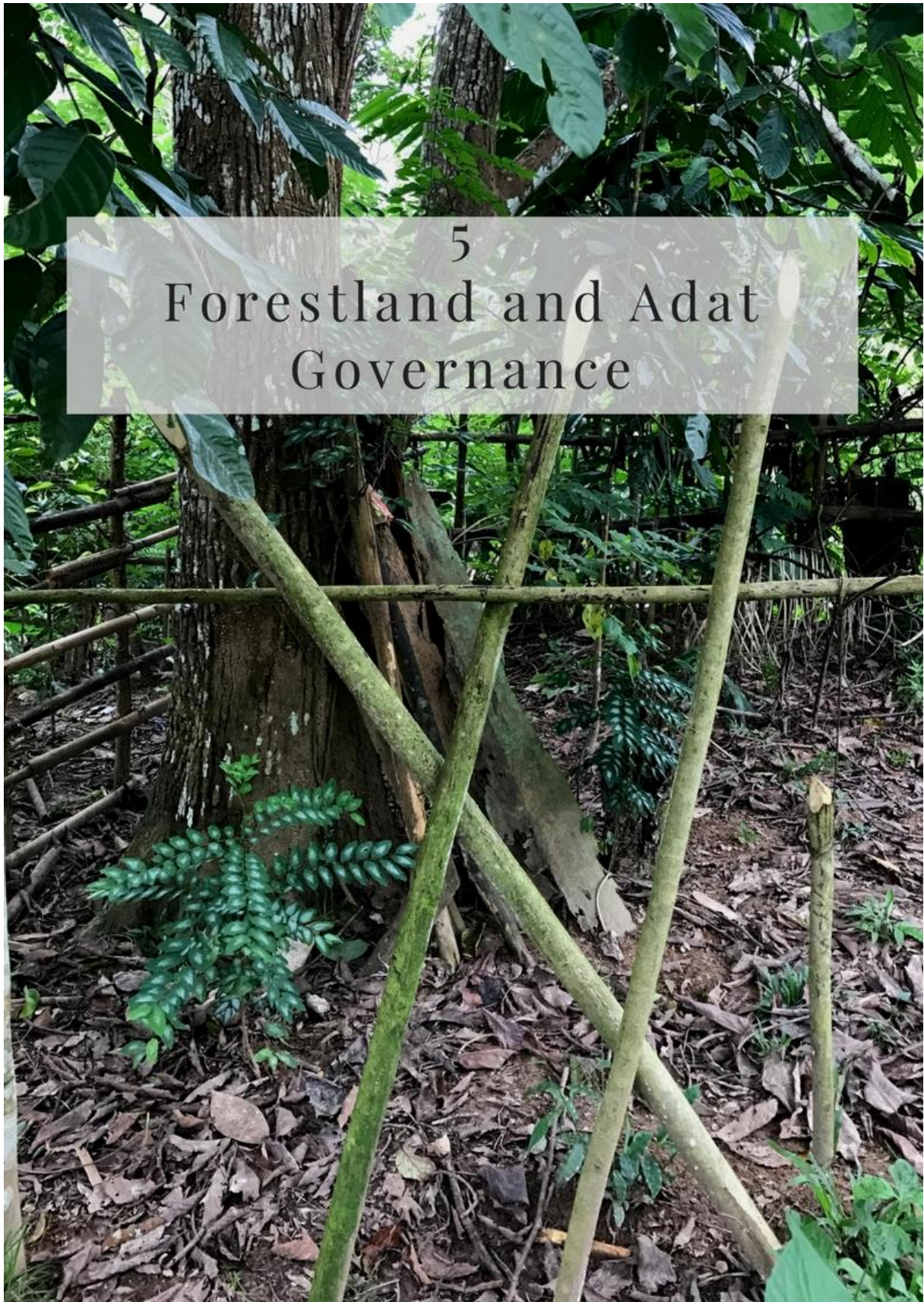
5

Forestland and Adat Governance

Chapter 5. Forest land and Forest Resource Governance

This chapter describes the aspects that relate to the 1st research question of this study. Firstly, the traditional *adat* system concerning the forestland and forest resource governance in the three villages in West Seram is explained. This will include the practice called *sasi* and the existence of a sacred place in the area. The first part is also a vital step, especially when endeavouring to assess the performance of the *adat* institution. Likewise, in this section, the *adat* people's belief in supernatural forces will also be incorporated in looking for meaning in this belief with respect to the forest and the natural situation in and around the village. Secondly, I explore the way the *adat* institution monitors the situation of their "*adat* forest" and the way they impose sanctions on those who violate the rule. Gibson et al (2005), argue on the importance of rule enforcement in guaranteeing that the forest is kept in good situation. Further, many scientists also agree on the involvement of local people for more effective monitoring and rule enforcement (Luzar et al, 2011). Finally, I analysed the relationship of outside actors, such as NGOs, research and financial institutions and local officials with the *adat* authorities in these three villages.

5.1 The Traditional Adat System

5.1.1 *Adat* through *sasi*

Sasi is a common practice in Maluku, which also represents a traditional '*adat*' way of managing natural resources. *Sasi* itself is divided into *adat sasi* and church/mosque *sasi* imposed by religious institutions. Based on the information derived from the interview, *adat sasi* can be used both in the forest and for private plants. The *adat* people have different signs for each type of *sasi*. I should mention that I saw so many church *sasi* signs, including a plank that had "this plant is under church *sasi* (*tanaman ini dalam sasi gereja*)", in the community's plantation (*dusun*). The sign was nailed on to the trunk of coconut trees or other plants in the plantation, or people's garden that need the protection. However, the number of church *sasi* that I found was noticeably higher in Mornaten. Church sasi is another type of practice being enforced by the religious institution –in this case the church. The procedure of using church *sasi* is generally the same in tall three villages. Individuals need to inform the church about which plants they want to be *sasi*-ed. The priest will announce the name of the plant's owner and the type of plant being *sasi*-ed to the congregation in the Sunday service. The priest then prays to God and asks for his protection for the resource.

A crossed sign made from wood is a typical sign of *adat sasi*. I only saw this sign private garden of the *raja* in Honitetu. Several of my informants mentioned people's loss of respect towards *adat sasi*, therefore, they prefer using church sasi. Others said that *adat sasi* was still used but in the forest far away from the village. In Mornaten, the *raja* was seen as the central point of whether or not people implement *sasi*. Most of the people admit the absence of the implementation *adat sasi*

because the *raja* does not take the sasi matter seriously. It is only in Lokki that the *raja* admitted the absence of *sasi* in their village, saying that the plan to revive some traditions –which includes *sasi* –was there and soon to be implemented. In the other two villages, the community can explain the idea of *adat sasi* confidently, although no information was provided concerning the exact location of the *sasi*.

It should be noted that the *sasi* periods vary, depending on the owner of the resource or the *adat* authorities. It can last for three months in the case of church *sasi* or two years for *adat sasi*. Key informants in Honitetu explained the implementation of *adat sasi* to protect animals that will be served as food at a big event in the village.

"...The adat authority banned hunting in a certain area in the forest for two years. In two years, animals will reproduce and their number will be enough to serve lots of people in the church and at the adat event in three years' time. At the end of two years, the sasi is removed and people are allowed to hunt to provide food for this event." (Toni Terbiari, personal interview in Honitetu, 7-10-2017).

For church *sasi*, people usually start to *sasi* their plants when their tree is flowering or when the fruit starts developing. They will remove the *sasi* sign when all the fruit is ripe and ready to be harvested. An interesting case of church *sasi* was applied to the Kenari Plants (*Canarium inditum*). As the trees are so high, *sasi* was applied when the fruits fell to the ground. Once all of the fruit was on the ground already, the *sasi* sign was removed.

 I examine the value of *sasi* based on Von Benda-Beckman et al. (1995), who conducted research in Central Maluku and formulated four aspects of *sasi*, as follows:

(1) Cultural-religious aspects. They argued about the original source of *sasi* that was rooted in the belief in God or their ancestors. Honitetu, Mornaten and Lokki applied both *adat* and church *sasi*. The difference between *adat* and church *sasi* only lies in the type of resource being protected and, on the sanctions applied. Unlike *adat sasi* which imposes fines, church *sasi* does not apply any economic sanctions at whatsoever. They believe in the punishment of God to whomever violates church *sasi*.

"*stealing is a sin. Taking anyone's stuff without permission is not allowed. Let God judge their sin (biar urusan dengan tuhan saja).*" (Ruben Iyai, Personal Interview in Honitetu,07-10-2017)

 (2) *adat* political and administrative aspects determine the implementation of *sasi* in the village in which decision related to the use of *sasi* depend on the village community. The reluctance of the church leader or *raja* to perform *sasi* will lead to the loss of the community's motivation to perform such a practice. By way of an informal interaction with two women in Lokki, I came to an understanding that church *sasi* relates to the believe of the *adat* community. The strong influence

of church *sasi* is the result of the leader's faith in it. Once the leader believes in the benefit and importance of *sasi* for the good of the community, people will have solid trust in them and voluntarily perform the *sasi*.

"... sasi depends on the head of the church. Nona (a term that refers to a sister or young woman) *, not all prayers are heard by God. The condition here is different from Taniwel* (another district in West Seram). *In Taniwel, people who violate church sasi will receive direct punishment from God. They became sick. When they ask for forgiveness, they will come to the priest and they will be seated at the front of the pulpit during the Sunday service. By doing that, the congregation will know who's been stealing.*" (Mei Patianakota & Ann Pesulima, informal interview in Lokki, 21-10-2017)

Other than that, this aspect also relates to monitoring and decision making concerning the management of the resource[5].

(3) Economic aspects. During the interview process with the *adat* community, many of them said that the reason to apply *sasi* lies on the desire to harvest an ideal amount of resource. The aspect is also embedded in the sanctions of *sasi* –usually traditional one –in the form of fines. In Honitetu, *adat sasi* sanctions are known as '9x9'. It means that in the past, the perpetrator had to give nine antique plates or nine machetes to pay for their 'sin'. Nowadays, as a replacement for the old tradition, it is common for the victim to ask for money. The sum of the money could be IDR 9.999 or IDR 9.999.999[6]. Those who do not pay are believed to carry karma and bad luck for their family for generations. In the other villages, a detailed system of the sanctions was based on calculation of the number of fruit/resource stolen. However, elaborate information on this was lacking. Looking at *sasi adat* sanctions. Do the *adat* community think it's fair? Whether or not it is fair was not explicitly addressed by the community. Nonetheless, a few of my respondents in the three villages admitted that the severity of the *adat sasi* sanctions had led to a decline in the use of this practice. Additionally, when a *sasi* sign is put up no one is allowed to destroy the plant or take the resources. No one is allowed to take anything from the plant; this includes the owner and the family. However, kids don't understand this system and sometimes they take the fruit as they think the plant belongs to their parents. Moreover, strong belief in the rage of the ancestors and concern about severe punishment from *adat*, makes some people are reluctant to do *adat sasi*.

(4) Ecological aspects which is found in the way they prohibit the extraction of a single species to the 'whole' forest. While *adat sasi*, it is claimed, protects the whole forest or sea area that is not owned by individuals, church *sasi* only protects single species/individual plants from being stolen.

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[5] Monitoring aspect will be explained in the next sub-section
[6] This is based on the history of the community who belongs to pata siwa (group 9) group. 9 is the symbol of the community.

Overall, I see that *adat* people have positive attitudes toward *sasi*. Many acknowledge the positive role of *sasi* in the protection of forestland and forest resources. Surely, this positive view can be a good sign for the future improvement or revival of this ancient practice.

5.1.2 Sacred Places

The existence of a sacred place in the *adat* village is considered to be an important component which can benefit not only the environment but also the people (Boafo et al., 2016). Moreover, the spiritual value that is embed within this sacred place has also contributed to the conservation effort in several places around the world (Frascaroli, 2013). In West Seram, people still believe in the sacred place. However, only in in Lokki was I allowed to visit the place with the guidance of the *Raja*. Without the *raja*'s approval for the visit, people believe that bad things will befall the person. In the other two villages –Honitetu and Mornaten –I was not allowed to go to the place as it is located far away from the village and even in the mountains. Yet, when I asked people, most of them knew about the existence of the place and agreed on the sacredness of this place.

During my stay in Lokki, people told me a story about a water spring, located not far from the village. They enthusiastically said the water spring there was a unique one as it didn't come from the mountain. As the spring had already provided a water supply for a long time, they considered the place to be significant. They respect the spring and believe that their ancestors protect this place. I was told that a bad event occurred in the past when someone sought to destroy the area by cutting down the trees there. I was informed that the individual was involved in an accident and died. People there really believe that their ancestors were angry and the person died because of his bad intention.

I understand how important the spring is for the Lokkis as it supplies the river that crosses the village. They do their laundry, dishes and bath in the river as there's no washing machines nor private bathrooms in most of the houses. Drinking water is also obtained from the river. Thus, I observed that when people believe that a place is protected by a supernatural agent, then the ecosystem services are also protected. This is also supported by Bhagwat (2009), who wrote that sacred places do have a significance in maintaining ecosystem services, as shown in the case of the Lokkis and the water spring.

5.2   Monitoring the Forest and Natural Resources

To keep the condition of the *adat* forest safe, the *adat* institution in Maluku assigned several people to monitor the forest. These people are called kewang. Their responsibility includes the protection of the forest's resource –in this case the timber –from being stolen by intruders. The kewang also monitors the enforcement of sea *sasi* by checking the fishing gear used by the fishers during *sasi* time and have the authority to confiscate any tools used for resource extraction. There

is no standardised principle on how *kewang* should be operated. This has resulted in *kewang* being established in different way in the three villages in West Seram

In Honitetu, two people from sub villages are assigned as *kewang*. The *kewang* must control the forest and report any violations in relation to forest destruction to the *raja* immediately. There is no specific time set aside to monitor the forest. It can be done every day or once every two months, though They have to consider their role in keeping the forest safe from 'illegal' encroachment. In contrast, regarding a newly formed *kewang* in Mornaten, there was a lack of detail and explanation about forest monitoring in the area. A key informant in Mornaten admitted on the absence of *kewang* in the past a new *kewang* was first formed in 2014. Two people from each clan are responsible for the job. Nonetheless, the implementation of kewang remains questionable and several of my respondents admitted it was difficult to control such a vast area of *adat* forest. Furthermore, they pointed out the absence of forest monitoring in the area.

Meanwhile, an interesting fact was found in Lokki, where the *raja* and community gave a different answer in regard to the presence of the *kewang*. The *raja* had always stressed the lack of funding related to forest monitoring and argued that the substantial cost was not the responsibility of the community. Thus, compensation could actually increase the community's motivation and at the same time create a sense of responsibility related to protecting their *adat* forest.

"... it is impossible to monitor the forest without any additional funding. People will ask for something in return for their effort. Forest monitoring is a hard job that could take hours and days. They need to take food with them. Now, if they encounter any illegal activities in the forest, they'll just remain silent..." (Richard Purimahua, personal interview in Lokki, 20-10-2017)

Contrary to the *raja*'s words, a male respondent excitingly explained the presence of *kewang* in Lokki. He further informed me that one of the *kewang* was his father. When I endeavoured to confirm this information with the *raja*, the *raja* reluctantly explained the current situation concerning kewang. Those who become *kewang* in Lokki are usually the people who own land inside of forest. The idea was that these people can visit the land and monitor the situation in the forest at the same time. Still, he considered the current system to be less effective in protecting the *adat* forest and the resources.

5.3 The *Adat* and Participation

The first concept of rulemaking lies in its equitable value, where those governed by the rules have the right to modify them as well. I found it hard to relate the idea of rule flexibility to the concept of *adat* in practice. The community believes that any rule stipulated by *adat* tradition is rigid and strict. "*Adat* rules cannot be changed!" That was the statement that I regularly heard every time I asked about the possible changes of the *adat* rule, in this case *sasi*. additionally, knowledge on the

rights of each individual –affecting by *sasi* –to contribute to the formation of the rules were also missing in all three villages I studied. I got the impression that the rules were made by *adat* authorities, whereas the un-codified common rule relates to the individual land and natural resources kept in the community, without the need to explain it explicitly. These findings were similar to van Ast's (2014) research carried out in Kupang Indonesia. He stated in his paper that *adat* rules are inherited from the past and a request for modification of the rules can be perceived as criticism towards the leader (van Ast et al., 2014).

It should be mentioned that the participation of the *adat* community in any meeting was also low in all three villages. Most of my interviewee admitted to not being present at village meetings. The reasons varied from not being informed to having to work –that they are always in the forest during the day.

"*I always work in the forest during the day and sometimes at night. I am away from home quite often. Therefore, I can't attend any meeting.*" (Petrus, personal interview in Honitetu, 07-10-2017)

I sought to be careful when asking about meetings. What kind of meetings do community have? as given that the audience and topics differed in the village meetings and *adat* meetings. Many respondents also informed me of the exclusivity of the *adat* meeting. One is not eligible to attend a meeting if he does not belong to the *adat* authority –that is the *adat* elderly, people in the *adat* consultative body or the head of clans. In the end, I found a gap in the idea of participation for the *adat* community and what it means for them, when participation only revolves around *adat* elites. Nonetheless, I found and experienced a strong bond and participation by the *adat* community in Lokki in an attempt to revive their *adat* traditions. Although I only witnessed one event, I saw the enthusiasm for and respect of the *adat* community regarding their traditions. Two days of 'forest cleaning' were done in a place believed to be their ancestors village in the past. The women help in the kitchen, preparing food for the men who were busy in the forest.

My finding on this participation aspect can be supported by the result of the CIFOR focus group discussion, in which the number of *adat* people who participated in several sorts of aspects was rather small. The graphs are presented in figure 6.

Figure 6. Community Participation in Certain Aspects (CIFOR)

It is worth stating that conflict and disputes in relation to the forest land and resources among the *adat* users were solved internally within the *adat*. Sanctions for rule violations were imposed by *raja* and members of the community that witnessed any violations –*sasi* violations by a person or illegal encroachment by an outside actor –were encouraged to report it to the *raja*.

In the case of conflict related to the presence of migrants in Lokki village, people appeared to try hard not to repeat the tragic event from the past. The source of the conflict is there and could ignite at anytime. I asked the *raja* about the way *adat* institution manage the growing number of migrants who have less respect for the *adat* with attempts to grab their *adat* land, however, answer was not provided. Nevertheless, the struggle to preserve their '*adat*' and their land is apparent. Initiatives carried out by the current *raja* are also comprise the legalisation of *adat* maps and re-planting the area along the river bank to prevent flooding and erosion[7] which could have serious impact on the community.

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[7] I was informed by the raja and *adat* authority that the migrants had destroyed the Lokki forest during the conflict. At that time, all of the Lokkis left the area, resulting in the absence of forest monitoring. Raja showed

5.4 *Adat* authority and their Relationship with Outside Actors

Relation of *raja* to the outside actors have impact on how *adat* operates in the area. The relationship with the higher authorities can also act as a 'back up' in the governance of forestland and resources. The alliance of Indigenous Peoples of Archipelago (AMAN) has an effect on indigenous movement in the area, shown by the presence of several AMAN activists, especially in Honitetu. A Positive effect could be derived from this, seeing that the community were able to defend themselves from activity related to illegal mining and logging carried out by other higher party usually associated with a private company or a corrupt local government authority.

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his concern about the destruction, and on the flooding and erosion that had a negative impact on the community

6
Adat and Modernization
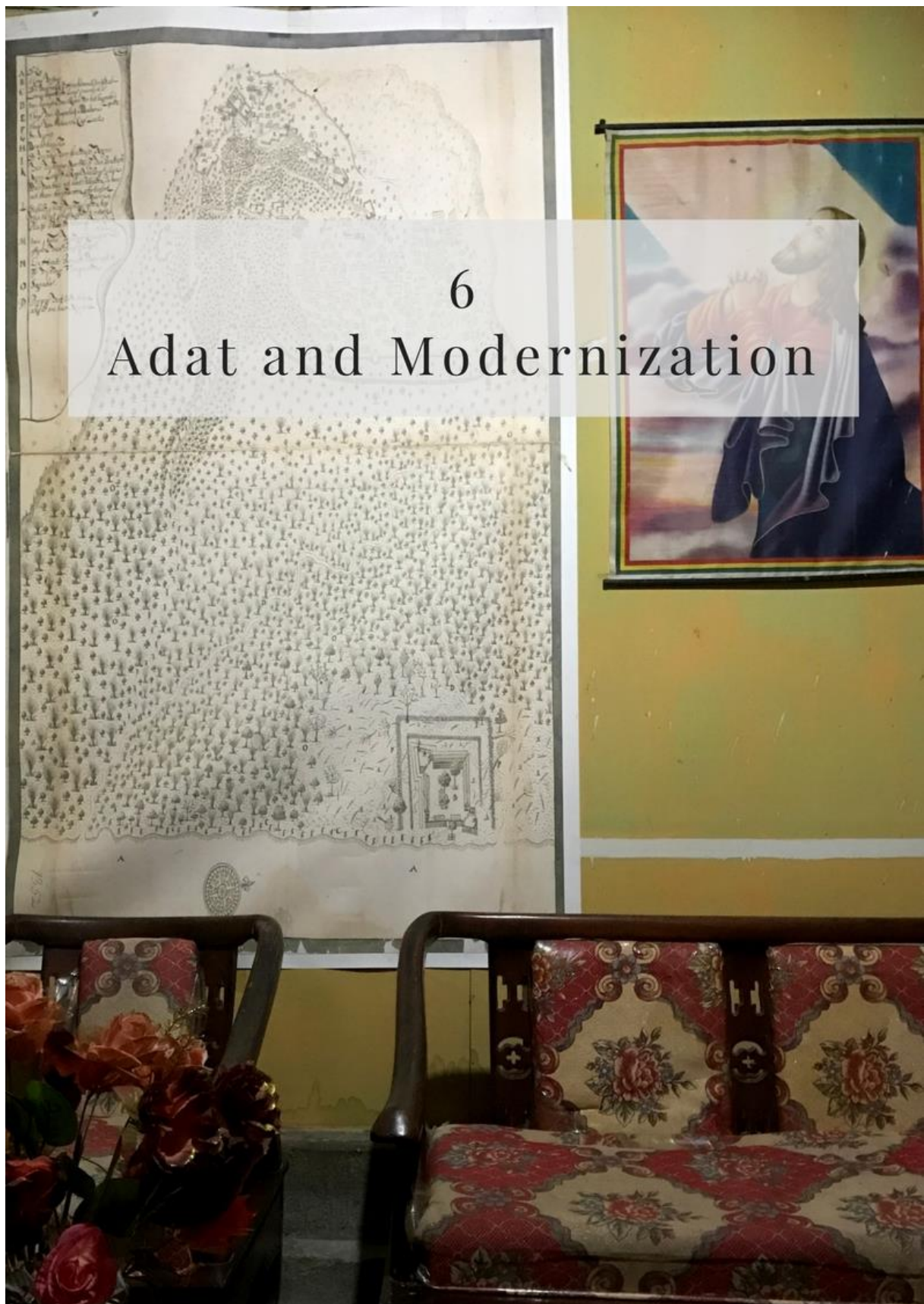
Chapter 6. The *Adat* and Modernisation

In this chapter, I will explain the influence of modernisation, in this case technology, in addition to the economy and religious institution, to the governance of forestland and resources carried out by the *adat* community. The topics presents also relates to the 2nd research question on how the *adat* cope with modernisation. At the beginning of this research, I was fascinated by the way *adat* people in Maluku live. The word *negeri[8]* is commonly heard instead of *desa[9]*, and *sasi* was romanticised by some of the environmental NGOs, as the sustainable use of natural resources.

The *adat* people in West Seram remain highly dependent on the forest and natural resources (Tjoa et al., 2018). Any changes in the forest resources could have a direct impact on them. Modernisation was assumed to be one of the factor affecting both the resources and the *adat* community's perception towards the resources. Analysis of the impact of modernisation can help to understand the way the *adat* institution strives to govern the forest and the resources.

This chapter is divided based on the three concerns of the research. First, I explore the interaction of the *adat* and technology. This includes how technology is utilised by the *adat* could affect forest situation in the three villages. Then, I analyse the influence of market demands in terms of forest (agro) commodities on the way the forest is being utilized. Furthermore, the economic situation of most of the *adat* people regarding their perception of the forest is also presented. In the end, the prominent influence of the church in relation to forest governance is explained.

The question of *adat* existence lies in how they face this changing world. Are they in a vulnerable position facing rapid social change? Research conducted by Harkes (2006), implied that modernisation is a threat to the *adat* tradition and is also the reason for the loss of *sasi* practice in management of marine resources. If so, how does *adat* institution make use of 'modernisation'?

6.1 The *Adat* and Technology

The use of certain types of technology determines the situation of forest resources (Dietz et al.,2003). Technology can be used to utilise resources or is a way to monitor their use effectively. The general situation in Honitetu, Mornaten and Lokki was the same, and people continue to use arrows and spears to hunt. Snare and trap are also useful for capturing large animals such as boar (*Sus scrofa)* or deer, although the operation of these two tools was only limited to experts. In fact, this expertise is regularly passed on to the offspring. Moreover, any activities related to the extraction of forest or agro products requires manual labour. No fertiliser was used. In Mornaten, Whilst I was there, I observed how the community made use of new land to grow cassava and

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[8] *Negeri* is a traditional term for Village. In Maluku, they use the word *negeri* to replace *desa*
[9] *Desa* is a literal translation of Village while *negeri* is a traditional term, refer to the village.

sweet potato –although it was generally done by people in Lokki and Honitetu. Most of the people burn the land believing it kills bacteria in the soil. Extraction of damar sap (*Agathis dammara*) – which is the dominant commercial product in Honitetu –is performed by using a machete to make an incision on the tree trunk, then the sap is collected in a vessel made from tree bark or leaves.

The influence of modern technology was only apparent in the use of a chainsaw for felling and guns to shoot small animals like birds and cuscus (*Phalanger orientalis*). Apart from that, the traditional system remains the same.

6.2 The *Adat,* Market Demands and The Community's Economic Condition

The economic situation certainly has an impact on shaping the forest in the three villages. Changing the forest into small scale plantations (*dusun*) demonstrates the indirect effect of the market. Kusumanto & Sirait (2002), wrote about how farmers in Indonesia incorporate certain type of species to meet market demands. Indeed, the way the *adat* community refer to their plantation as forest, as well as the way they emphasise the need to fulfil family needs revealed the prominent effect of their longing for money and prosperity. Sayer (2009), implied in his research that forest management and protection has less value for a community compared to agricultural practice which at least provides a chance for people to free themselves from poverty. Although the statement is true, we need to see the 'unconscious' management methods used by the local community in their plantation. The *adat* community in the three villages regularly refer to their plantation as a *dusun*. Based on Kaya et al. (2002), a *dusun* is a forest garden that resembles an agroforestry system. In Honitetu, some of my interviewees said that they still applied the fallow system in their private *dusun*. They started with garden plants comprised of taro (*Colocasia esculenta*), cassava (*Manihot esculenta*) and legumes (*Arachis hypogaea*). Once they have harvested all of these garden resources, they will plant cacao (*Theobroma cacao*), clove (*Syzygium aromaticum* syn *Eugenia aromatica*), coconut (*Cocos nucifera)* or nutmeg (*Myristica fragrans)* – species that have market values –and will use more land for these garden plants. The other two villages, Lokki and Mornaten –applied more or less the same system as in Honitetu, although the fallow system is not extensively used anymore, the intercropping system is still commonly used in these areas.

Economic improvement is indeed something pursued by the *adat* community in the three villages. In Honitetu, it is shown by how the *adat* community open to any form of employment, whether in the form of a commercial plantation or a logging company. Most of my interviewees expressed their interest in the presence of a company in the area, expecting economic improvement and poverty alleviation.

"...I am open to any company that wants to operate in the villages. Their existence could provide more jobs for the people in Honitetu, something that we need to free us from this misery." (Christina, personal interview in Honitetu, 05-10-2017).

But, a key informant expressed his disagreement regarding the commercial exploitation of resources, saying that the *adat* community gain nothing by the presence of those companies in the village. His role as an *adat* representative for AMAN might influence the way he thinks about the crucial aspects concerning the *adat* identity in Honitetu and the false image of economic improvement by means of mining, logging or commercial plantation.

"The first questions I will ask to the company is what their goal is. What is the impact on the community? What if we only have the negative impact from it? It is not a new case that whenever there's a mining activity, the local community in the area will live far from prosperity even though they become one of the employees." (Toni Terbiari, personal interview in Honitetu, 07-10-2017)

Nonetheless, I was quite surprised to hear the reluctance of the *adat* community in Mornaten and Lokki towards the presence of a company. The community's concern about the harmful impact of a company's activity in the forest and how it will affect future generations is something that needs to be valued. However, they also expressed their 'insignificant' voice in the decision making, explaining that in the end the decision will be in the hands of the *adat* authorities.

As a village was badly impacted by the 1999 conflict and in their attempt to revive the *adat*, the Lokki become more cautious about the involvement of any outsiders. They keep on emphasising the high value of *adat* artefacts in the forest and expressed their fear of the loss of and the damage to these artefacts. Thus, opposing the idea of any activity in the forest, apart from the internal activity of the *adat* community in Lokki, is understandable, as for them, the artefacts provide some sort of evidences pertaining to their existence as an ancient community. An *adat* institution that was not new and artificial but an institution derived from the past and deserved respect.

6.3 The *Adat* and the Church

Von Benda-Beckmann (1992), wrote a paper on the change of indigenous law in Central Moluccas. It explained in the paper that church *sasi* emerged because of two factors. Firstly, the lack of interest related to *sasi* from the *adat* government played a role in the rise of church *sasi*. Secondly, the community considered the 'rage of God' to be more effective than harsh sanctions imposed by the *adat*. Belief that God will grant protection of their possessions and punish anyone who breaks the rule and punish those who steal has a powerful impact on the way they use *sasi*.

In the area where *adat* and religious institutions go hand in hand, the *adat* community appeared to put trust in the church, resulting in the extensive use of church *sasi*. Conversely, loss of trust in

the church led to this practice being used less. The church leader came from outside of the *adat* village. Thus, it might be hard for outside people –such as a priest –to understand and at the same time appreciate this *adat* tradition. The risk of being accused of being an infidel because of *adat* beliefs and rituals performed to respect their ancestor's spirit makes the situation worse.

"*Adat came first, then religion. Adat had become our compass for life. We do not worship the ancestors, we respect them! This is something that can't be understood by the church leader. Sasi came from adat, then the Church adopted this practice. But they just don't understand.*" (personal interview in Lokki, 21-10-2017)[10]

Yet, the hidden tension between the *adat* and church in Lokki does not stop them from being religious people. When I was invited to join *adat* rituals in the forest, it started with praying, asking for protection so that the rituals or activity can be undertaken without any problems.

Modern religion set the ancient Gods aside, as in the case of the Lindu people in Sulawesi (Li, 2001). But does it also mean that *adat* will disappear? I firstly portray *adat* people as those having their own practice and belief, separated from modern religion. But in reality, the overlapping phenomenon of *adat* and religion diminish the border between them. An extreme example was seen in the inseparable concept of the Balinese *adat* and Balinese Hindu religion (Warren, 2007). In addition, *adat* had been used as a tool to unify the *adat* people, to integrate religious differences and to live in harmony and peace (Múller, 2013). Thereby, *adat* and religion are not independent entities but an interlinked concept of *adat* in Indonesia (Hauser-Scháublin, 2013)

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[10] See Chapter 5.1

7
Forest Tenure Reform in Indonesia

Chapter 7. Forest Tenure Reform in Indonesia

In this chapter, I present two different views on forest tenure reform in Indonesia. Previously in Chapter 1, I provided a brief explanation of forest tenure reform in Indonesia, which now is recognises indigenous rights with the aim of increasing the prosperity of the *adat* groups. The idea of forest tenure reform occurs in the presence of multiple stakeholders regarding the management of the landscape (Larson, 2010). Thus, we need to understand tenure rights first to be able to recognise the changes. I briefly explain the shift of property regimes from the social forestry scheme and the *adat* forest to the current situation by using the diagram developed by Barry and Meinzen-Dick (2008).
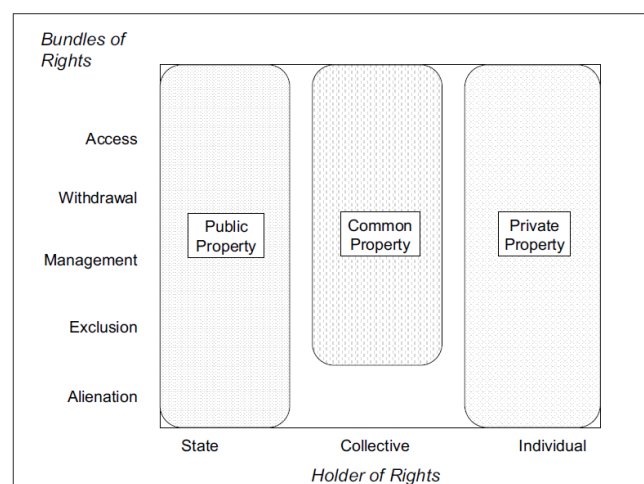
Figure 7. Classic Property Systems (Barry and Meinzen-Dick, 2006)

To begin with, Figure 7 shows three types of holders which includes public, collective and individual. In the case of Indonesia and Maluku specifically, the State of the Government own the rights to public property, whereas the property of the commons is held by the resident or the *adat* community. Meanwhile, each of the *adat* households have rights to private property. The five social forestry schemes embedded in statutory laws emphasise on giving 35 years' permission to the community to manage the forest resources located in the state forest; hence, also rights to access, withdraw and the management of the forest by the community. The difference that I saw when looking at the definition of each social forestry scheme and the *adat* forest lies in the property rights of the *adat* forest that might include the exclusion rights.

This chapter is divided into two, an explanation coming from the Government –which imposed the idea of forest tenure reform –and the understanding of *adat* land by the *adat* communities in Honitetu, Lokki and Mornaten –who will be affected by the reform.

7.1 Government perspective on tenure reform

To be able to gain full rights over the *adat* forest, the *adat* community needs PERDA or regional regulation issued on a regency scale concerning *adat*. This includes a definition of *adat*, who belongs to *adat*, what sort of characteristics owned by the community can be defined as *adat* (Personal Interview, 01-11-2017). Nonetheless, there was still no PERDA on *adat*, at least in West Seram.

"We recognise adat people in Maluku, but to legalize them, we need PERDA." (Isnain, Personal Interview with Forestry Agency, 1-11-2017)

An official from the forestry agency also explained that the problem stemmed from the *adat* community. The unclear border of the *adat* territory and the land conflict among *adat* groups needs to be solved first. But, to design a clear territorial border for each of the *adat* land was considered challenging. Therefore, the social forestry scheme was introduced with the idea that the *adat* people could still undertake activities inside of the state forest legally, while trying to fulfil the requirements of the *adat* forest.

A challenge in issuing the PERDA also lies with the ability and eagerness of the local government to put it into action. Sahala Simanjuntak, an official from BPSKL showed his concern regarding the commitment of the local government on *adat* forest implementation.

"*Formulation of PERDA needs a large amount of money. Yet, if the government –the regent –wants to make PERDA, they will do it regardless of the cost. Right?*" (Sahala Simanjuntak, personal interview with BPSKL, 01-11-2017)

Looking at how the local government agency operates in Maluku, I can see that the work is not divided clearly, especially between the forest-related government agencies. The name of the forestry agency changed to the Forest Management Unit (*Kesatuan Pengelolaan Hutan/*KPH), as did its function. As the forestry agency works at a coordination level, KPH was designed as a unit under the provincial forestry agency, to handle monitoring activity at the regency scale. But, an interviewee from KPH admitted that the agency was inactive at that time, as the decree that regulates their work and funds had not been issued. Conversely, the provincial forestry agency had formed a new body working on tenure, though the same problem still applied, seeing as no decree had been issued, there were no clear explanations related to how they should work and no funds had been allocated.

Back to the social forestry and the *adat* forest, my findings show the lack of understanding of the significance of the *adat* land to the *adat* community by the government. Moreover, there was no mention of any differences between the *adat* forest and social forestry schemes. However, he

implied that it is important for the Government to recognise the rights of indigenous people (the *adat* people), as they are recognised by the international community, for instance the United nations.

"For *me, there are no differences between the village forest and the adat forest. When we talk about adat, we talk about the monitoring system. Resource management needs to be governed according to their adat rule, that's it.... Nowadays adat people want to show their identity, their existence. That is why AMAN always push for the implementation of the adat forest.*" (Sahala Simanjuntak, personal interview with BPSKL, 01-11-2017).

## 7.2 *Adat* Community perspective on tenure reform

Most of the *adat* communities in the three villages know about the existence of the state protected forest in their village. Nonetheless, the knowledge was only limited to the prohibition of timber extraction. Additionally, only some people –predominantly the *adat* authorities, understand the function of the protected forest. The *adat* community do not appear to understand the formal arrangement of the forest functions fully, let alone the five types of social forestry. They have their own views on the forest and land ownership. For instance, a certificate of ownership is not required for their land. Only recognition from the people in their group and respect on other's possessions are important in securing their individual private land (private property).

"*...no need for a certificate. We already know who the owner of the land in the village is!*" *(*Mei Patianakota, personal interview in Lokki, 21-10-2017)

Their perception as the guardian of their *adat* land also played a role. The clearing of the forest for agricultural land means that the cover provides is reduced. In Honitetu, people insist on utilising the area under protected forest as there is an overlapping area of community land and state protection forest. Furthermore, the *Raja* is demanding that the State must consider changing the title of the forest so that it is not protection forest anymore.

Based on Regulation No. 41 of 1999, the protection forest aims to protect the watershed area, therefore timber extraction is strictly prohibited. But, the State allows the community to extract non-timber forest product as in the case of hunting. However, examining the old system of land planning which excludes the participation of the *adat* community that led to the abandonment of state rules, is not a new thing that in the end the protected forest does not deliver its function.

"*I know that there's protection forest here and I know that farming activity is illegal. But people still do it there. This is our land. We're the ones who protect the forest every day.*" *(*Karel, personal interview in Honitetu, 05-10-2017)

8
Discussion
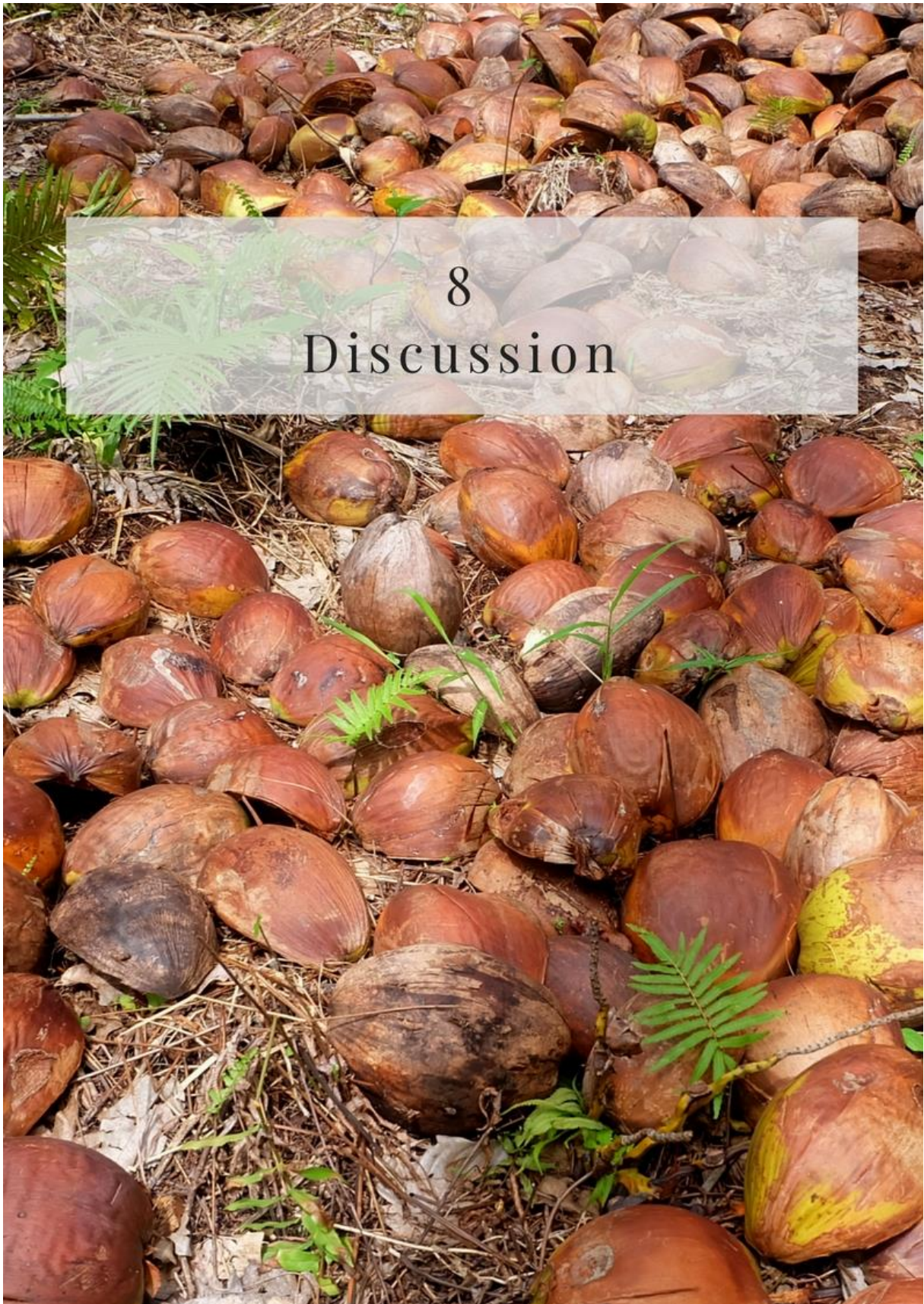
Chapter 8. Discussion

This chapter analyses the research findings. Using two theoretical frameworks; specifically, design institution and traditional ecological knowledge, I would like to show how design institution and traditional ecological knowledge are applied to assess the performance of the *adat* institution in the three villages in West Seram, that are Honitetu, Mornaten and Lokki. Finally, contrasting perceptions on the tenure reform helped to answer how the *adat* institution will affect the implementation of forest tenure reform. To do so, I will first summarise my findings with a diagram which help with the idea of mapping and further guide the chapter. Subsequently, I will divide the chapter into the two categories, which belongs to the analysis of the institution and contrasting perspectives on tenure reform. To conclude, the answer to the main research question –that attempt to find the influence of current condition of *adat* to the forest tenure reform –can be answered.

8.1 Overall findings
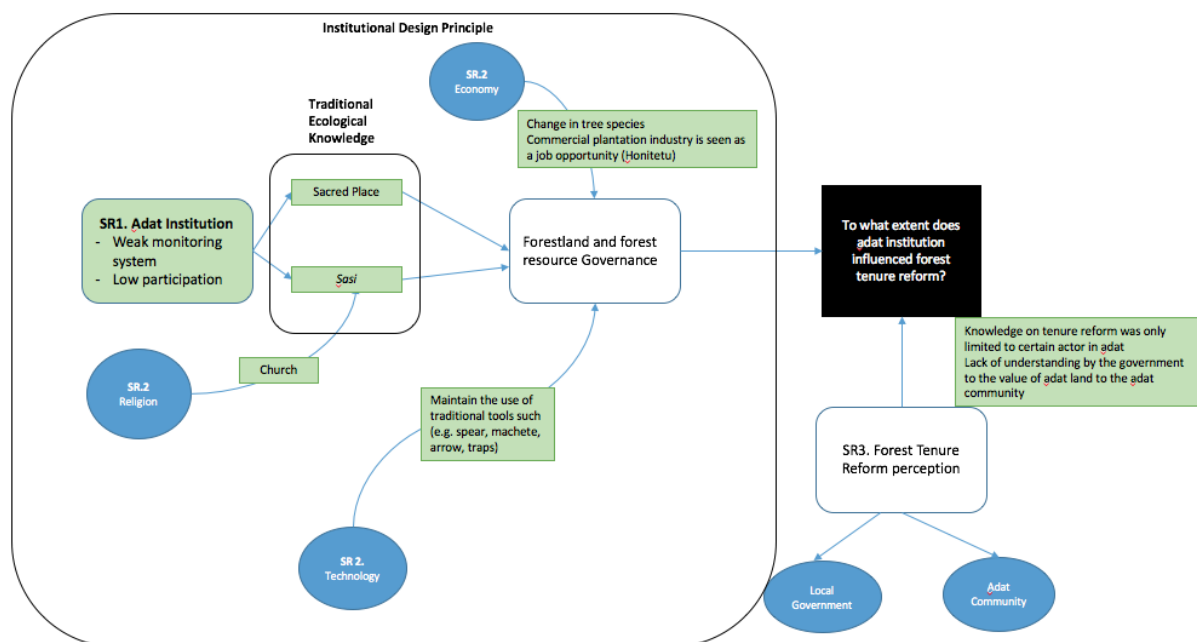
Figure 8. Overall Finding from the three study sites (author)

In Figure 8, I summarise my findings related to *adat* practice, the effect of modernisation and the contrasting perception of both actors, the local government and the *adat* community. In order to find the answer to the question in the black box, I will divide my analysis into two categories. The first one is on the subject of the *adat* institution and how I see it performance in forest and natural resource governance. The second category is about tenure reform, where the perceptions of the different stakeholders are presented; hence, provide an understanding of the meaning of tenure reform for the *adat* community.

The first category is the general *adat* institution in forestland and resource governance –which is the diagram on the left side of the black box. In the governance, almost all the villages –Honitetu, Lokki and Mornaten –have weak monitoring systems in the forestland and forest resource while the participation was also low. In contrast, *sasi* which was believed to be the ancient practice of the Moluccan *Adat* was influenced by the presence of religious institutions in the area. Consequently, the relationship between *adat* and religion in the area was strong, whereas, the needs of most *adat* communities to sustain their life has led to certain areas in the forest being converted to produce species with market values, although it has not changed the technology used. Machetes, tree bark and manual labour were still used in extracting resin (Honitetu) or clearing new land (Mornaten). In the case of subsistence hunting; spears, traps and arrows were still being used currently.

The second category is forest tenure reform. The reform enacted by GoI to recognise the rights of the indigenous '*adat*' community aims to alleviate poverty and increase their prosperity. The *adat* forest requirement which is difficult for the community to follow, together with the absence of *adat* PERDA creates a 'rough' path for the *adat* community to acquire the *adat* forest title. Therefore, the local government agency urged the *adat* community to implement one of the social forestry schemes –at least HKm or HD from the five social forestry schemes –to make *adat* activity in the forest legal. Siscawati (2017) pointed out on the desire from the *adat* community to obtain legal ownership of the *adat* forest, meaning that they still long to perform their regular activity in the forest without being worried about land loss or sudden restrictions imposed by government or a company. Nonetheless, most of my interviewees –the *adat* communities –have little or no knowledge on the current situation regarding their *adat* forest. What they know is that the *adat* land and forest will always be theirs, descended from their ancestors, without the need of being (legally) recognised by the government.

8.2 The *Adat* Institution

Using both theories related to design principle and traditional ecological knowledge, I discussed the current situation in relation to the *adat* in the three villages in West Seram –Honitetu, Lokki and Mornaten. The first part is the analysis of traditional ecological knowledge, subsequently followed by the design principle in the second part.

8.2.1 Traditional ecological knowledge

The first part of this sub section analyses the use of traditional ecological knowledge (TEK) in the study sites. In this research, I identified TEK based on its definition –it's an inherited knowledge about the environment and rarely codified. Therefore, I thought of *sasi* as a type of TEK which exists in West Seram, Maluku.

Sasi has existed for generations and it adapts and evolves. Most of the *adat* people in West Seram knows the concept of *sasi* and acknowledge it as an inheritance from their ancestors. Moreover, *sasi* cannot be separated from the community's belief in supernatural forces, which based on Boafo et al. (2015), is considered to be one of the components of TEK. They emphasised the benefits of taboos in minimising the impact of over harvesting on the resource. This explanation is also in line with the resource and habitat taboos concept, formulated by Colding & Folke (2001). Among the six categories, *sasi* (both *adat* and churh *sasi*) fits the function of temporal taboos which restrict resource extraction in time (three months - two years). Imposing *adat sasi* on the forest via the prohibition of the extraction of any animals or plants for two years, could actually benefit the species by giving them time to recover and reproduce. Whereas church *sasi* covers individual plants and gives some time for the fruits to develop, the effect of this practice to the conservation effort is still unknown. Although the aim of this practice did not originally emanate from environmental concern, but rather was about gaining economic value, the practice of *sasi* is important to analyse in order to understand what Colding and Folke (2001), referred to as "adaptive institutional response to ecosystem dynamics for conservation". A further type of TEK also incorporates the element of traditional protected areas (Boafo et al, 2016) –in this case the sacred places –which based on the RHTs concept, belongs to the habitat taboo. This taboo is a significant factor that plays a role in ecosystem services maintenance, as in the case of the Lokki[11].

Indeed, the traditional *adat* system is not rigid as can be seen by the implementation of *sasi*. Instead of disappearing from the lives of the adat community's life when facing modern religion, the practice evolves. Even now, I can see that in Maluku, both *adat* and modern religion cannot be separated. The local community consider themselves to be God's son/daughter and *adat*'s son/daughter (*anak tuhant* and *anak adat* respectively). They believe in God and respect their ancestors at the same time and consider both to be important. It can be concluded that, once again, spiritual belief is an attribute that both *adat* and *religion* have. Therefore, for the *adat* and *religion* institution to work together in West Seram is an important thing to increase the effectiveness of both *sasi* and sacred places.

Both *sasi* and sacred places are considered to be site specific. Thus, the enforcement of both systems –*sasi* and sacred places –in forestland and forest resource governance can actually fit the local situation, seeing as both of them stem from the community's belief and practice. However, the protection of sacred places and the implementation of *sasi* (adat and church) needs to be coupled with good leadership and the community's trust to the leader. Reliance on spiritual belief

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[11] see chapter 5.1.2

is not enough, given that spiritual belief relates to the social and psychological condition of the people that may change in the future (Wadley & Colfer,2004).

8.2.2 Design Institution

Access and the condition of forest are influenced by the institution (Agrawal & Chhatre, 2006). In this chapter, I use twelve design principles to assess the situation in Honitetu, Lokki and Mornaten. The situation of the villages will be matched with these principles. To make it clear, I will divide the explanation of the principles based on the research questions in the study.

- Sub research question 1

Design Principle 1: Clearly defined boundaries

The communities in the three study sites are aware of information on the village boundaries. They even have their own *adat* map. In the case of individual land located in certain areas in the forest, people within the village already know and respect each other's land, they have their own way to separate their land from another person's land. Moreover, a small number of people in each of the *adat* villages also have a positive impact on how people are able to recognise each other. Then for the 1st principle, all of the three villages have –on their opinion– clear territorial boundary that they established themselves and they understand who exactly belongs to their *adat* group. Nevertheless, resource extraction in the form of animals was carried out deep in the forest, beyond the area of *adat*.

Each adat community knows their territory well. But what I want to highlight here is that the boundaries might be clear for one *adat* group but not the other. Problems might arise in the forest when the signs that separate each of the *adat* group's land are not there. One group can claim that their land covers a certain area in the forest, although others may also claim the same area. The overlapping land situation with no clear evidence creates a problematic situation, as the free riding problem might occur. Consequently, conflict could arise. It should be mentioned that each of *adat* group have their own knowledge regarding the boundaries in governing the commons –in this case the *adat* forest. Therefore, the traditional knowledge owned by the community could work here. But in order for the tenure reform to work, the boundaries have to be defined. Therefore, some arrangement is required between each of *adat* group so that they define their own territorial boundary.

Traditional ecological knowledge explained in this study was also observed to have their own boundary. *Adat sasi* for instance, restrict the access of people at certain periods in specific area in the forest. Concerning the sacred place in the three villages, no one is allowed to visit these place unless He is the *raja* or someone who is being guided by the *raja*.

In general, the commons being governed is the *adat* forest. However, *adat forest* can be governed in several ways which can create different borders. Additionally, the *adat* forest is governed by the *raja* and *adat* institution, which establish rules and define the borders that are recognised by all of the adat community. *Adat sasi* as a way to govern the *adat* forest also creates its own space within the vast area under *adat* jurisdiction. The sacred place is an area located in the forest, which has its own border that prevents people from entering. The illustration of these different systems in regard to the commons boundaries can be found in Figure 9.
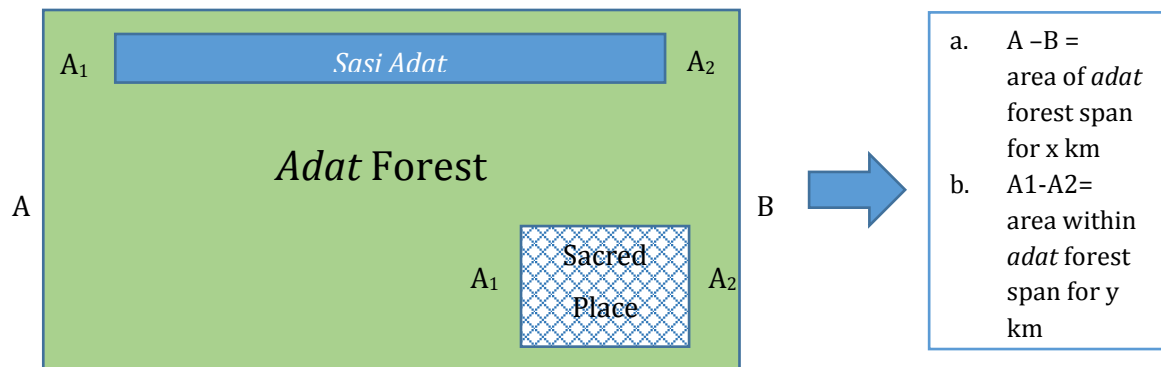

Figure 9. Boundaries of different governance schemes

Design Principle 2: Congruence between appropriation and provision rules and the local ondition

In design principle 2, it is evident that the rules in the forest land and forest resource governance –in this case, *adat sasi* – which exist in the three village was derived from community tradition. *Sasi* was not codified but the spiritual belief of the community strengthens the function of *sasi* as protection. Moreover, the practice is not a new rule for them. They know what it is, they understand how it works and they respect the tradition as something inherited from the ancestors. The ideal type of *adat sasi* that I heard from the people in Lokki is to restrict access to hunting in the forest during the breeding season. It was strictly enforced during colonial times; however, it is no longer applied these days. Even though the implementation of *adat sasi* is not really apparent or even dormant in the case of Lokki, the knowledge of *sasi* shows how it can be beneficial through the maintenance of the resource condition and preserving cultural heritage, besides increasing the efficiency of the *adat* institution in the forest land and forest resource governance by incorporating the knowledge that they already have.

Even though the *church sasi* only protects individual plants owned by the community, it can be seen as protection for the commons –In this case the trees. How is church sasi compatible with the local condition? Similar to *adat sasi,* church sasi is unique practice to the *adat* community in Maluku. The time spent for waiting for the resource to be fully and readily harvested is seen as something that is worthwhile. People see and experience the importance of church *sasi* and the

benefits derived from this practice. Therefore, this leads to the maintenance of church *sasi* in most of the villages.

The other TEK that I want to highlight here is the existence of sacred sites in the three villages. A unique element of the sacred sites is that no one has the rights to own the place. No one has the rights to exclude others from the place, but the spirit which exist in the belief of the community. In regard to the principle 2A of "congruence between rules and local condition" can be found in the sacred places. As it restricts the access of people, it also prohibits the extraction of the resources. Moreover, sacred place is a unique area as referred to Samakov & Berkes (2017). It relates to a community's well-being, is dynamic and it has its own taboos and rules. To note, each of different sacred place can have different dynamics and rules. The study performed by Samakov & Berkes (2017), revealed how privatisation of sacred place decreases the value in the 'sacredness' of the place. The more pilgrims visit the area, the more sacred the place. But in West Seram, 'privatisation' by means of taboos –that those come to the area without permission will be struck by bad luck –reveals a different kind of system and that's how people belief in it. Moreover, the way people think about the importance of the sacred place to store the water generates further protection for this sacred place. This phenomenon shows the suitability of the sacred place with respect to local condition. The cost borne by the community in the form of restricted access is equal to the benefits –in the form of ecosystem services –obtained by the *adat* community.

Design Principle 3: Collective choice arrangement

Collective choice arrangement refers to the participation of the community in rule modification. To make the information clearer, I separate the *adat* practice into three types; specifically, *adat sasi*, church *sasi* and rules involved in governing the sacred place. Rules are equitable and will be followed when everyone affected by the rules is involved in formulating the rules. An example regarding irrigation system in India showed that farmers have positive attitudes about the maintenance of the irrigation system when they have opportunity to participate in the rule making. In contrast, when the rules are forced by the elites or government, the success rate of the programme is lower.

In most of the adat villages in West Seram, rule modification is not something that is being exercised by the community. When I asked about the possibility to adjust the *adat* rule based on community's aspiration, most of adat community said, No. "*Adat* rule can't be changed. It's been like this in the past and it will be the same in the future. However, I doubt whether *adat* practice will remain unchanged. In the case of Honitetu, there has been a change in the type of sanction. Previously, people used to pay in the form of antique plates. Now, they prefer to pay the fine, as

the antique place are hard to fined. The problem is that it is the *adat* elites who make changes to practice and not the community.

A common phenomenon that I observed in the three villages is that there was only a few *adat sasi* left, despite the communities' recognition of the benefits derived from the practice. One of the factor that I found pertaining to the decrease in the use of *sasi adat* is because the communities consider the sanctions to be strict. In my opinion, the people require strict rules that people will obey. However, when the rules are produced without reaching an agreement between those affected by the rule, I am afraid it won't lead to the successful implementation of the rule. The situation relates to the 3rd principle of collective choice arrangement, which I did not find in the three villages. The combination of the involuntary use of *sasi* adat in the community (with no clear guidance from the *adat* government on when to use *adat sasi in the forest*) and the feeling of anxiety created by the *sasi* sanctions, could be one of the reasons why I found only a few *sasi adat* in the three villages. Regarding the church *sasi* and sacred place, collective choice arrangement was also absent. Similar to what happened in *adat sasi*, decision making in the formulation and modification of rules were vested to a few individuals such as the elites (*raja, saniri,* elders and the priest in the case of church *sasi*). The case fit the condition found in the study carried out by Rutte (2011), who identified that 86% of the case studies about sacred sites have no collective choice arrangement. The absence of the arrangement may possibly be due to respect for the elites (*raja*, *saniri*, elders and priest).

Harkes (2006), reported the absent of community participation in decision making, although this did not affect good governance of marine resources. The key lies in the legitimacy of the *raja* and once the community trusts their leader, there's no need to play an active role for the governance to be effective. I also found a similar pattern here in the three villages. Community dependence on the leader was high. This means that when they trust that their leader is a good one, a leader who can take care of the community and maintain the adat, the community will put no attention to what happen inside the institution and just rely on *raja*. Nonetheless unlike Harkes (2006), who studied the success of the marine institution in Haruku, the success of *adat sasi* was not apparent in the three villages.

Furthermore, what I found interesting in this principle is that when the community participate in the rule modification, the governance process is more equitable. However, what if the community do not understand that they have the right to participate in decision- making on the issues that affect them? Here, the community needs to understand that they can also have an impact on decision making in the village. This also means that the *adat* needs to reconsider about its institution by creating more space for the community to voice what they think of current forest land and forest resource governance and what needs to be improved. Therefore, the community

can be involved in the decision making process, especially in the case of *sasi* and sacred place and thus, a sense of ownership and greater dialogue can be built as these two elements can results in improvements in the institution based on Handberg (2016). From the dialogue, some insights can be derived and therefore, knowledge will be generated that is beneficial for the government process. It should also be mentioned that the Involvement of every representative from the community can also result in more transparency that is a vital component of more effective institution.

Design Principle 4: Monitoring

Cox et al. (2010), divide the 4th design principles into two. The first is related to the existence of monitoring in the area, whereas the second one is that the people responsible for monitoring should come from the community per se. The monitoring process is considered to be important and often associated with an enhanced forest situation, as stated by Ostrom (1991).

The *adat* institutions in Honitetu, Mornaten and Lokki assigned some people from the *adat* community to monitor the condition of the forest as well as rule compliance, specifically in relation to *adat* sasi. These people are called *kewang*. The idea behind *kewang* is to check whether violations occur, especially when *sasi* is applied in the *adat* forest. Both Honitetu and Mornaten, recognised the *kewang* as a group of people who monitor the forest. One of a clan heads in Honitetu said that people assigned to be *kewang* need to have sufficient knowledge of the village area so that they can guard the border and recognise any illegal activity carried out by free riders. However, as mentioned previously, I could find no clear explanation on what exactly their job entailed, the responsibilities, and when they have to go inside of the forest. Whether the *kewang* has to guard the borders, check the condition of the forest or punish those who violate the *sasi* was not clearly described in both of the villages. The Lokki used to make use of *kewang* in the past, yet the *raja* admitted the lack of monitoring activity was due to the absence of funds. Nonetheless, I am not surprised by the lack of monitoring as the practice of *adat sasi* has also decreased.

Design Principle 5: Graduated sanction

Design Principle 5 describes the need for sanctions to discourage someone from violating the rules, in this case rules pertaining to *sasi* (both the *adat* and church), besides the rules related to the protection of sacred place. The gradual implementation of the sanctions aims to create proportionality between the seriousness of a violation and the sanction imposed. In the three villages, the power derived from the community's spiritual belief could actually decrease the needs for such monitoring and sanction by a person. However, the spiritual beliefs of the generations differ because older generations may still believe in the existence of the ancestors' spirits that protect the village, whereas the young may not have this sort of belief. Therefore, rules

and sanctions needs to be clearly formulated and understood by every class of society –old, young, women, men, kids –in the three villages.

The physical sanctions associated with *adat* sasi are different in each of the villages. Sanctions in Honitetu are incredibly strict. The money that must be paid depends on the individuals who has suffered the loss. Thus, the perpetrator may in fact receive an unjust financial punsihment. In Mornaten, the calculation of the loss was more reasonable as it is based on the number of items being stolen. Concerning the church *sasi*, physical sanctions are not really applicable as it relies on the internal belief of the people. However, the interviews I conducted revealed an 'informal' system of graduated sanctions. In the case of church *sasi,* those caught stealing are occasionally forgiven by the owner of the resource. As long as the action does not undermine the resource condition or create a distinct disadvantage, the owner will not be angry regarding the action. Usually this understanding is created when the owner understands the situation of the violator who at that moment needs food. Thus, it can be said close relationship among people can create an understanding that produces various types of 'graduated' sanctions. However, as this practice was being exercised individually, or in other words not all of the people think the same way, there is no written explanation or procedure on what it is and how the community do it. This kind of cooperation and solidarity as described by Cleaver (2001), can also be found in the collective management of water in Nykai, Zimbabwe. This complex relationship that comprises of family and social relationship among the people, creates an understanding of the possibility of a person who benefits from "unequal reciprocation". I would say that the current informal system of sanctions related to the church sasi can also be adapted to the *adat* sanction that also enforces strict sanctions that represent the wishes of the community and meet the agreement within the community.

In the area of the sacred site, there was no special treatment in regard to the sanction imposed by the community. They believe on the misfortune of anyone who damages or destroys the sacred area. What I see here, is that norms and beliefs can work within the community. Meaning that they understand and benefit directly from the services provided by these sacred sites. Any violation results in the ancestor's anger and could lead to the death of the perpetrator. But, I think that certain sanctions imposed on the sacred sites can also imitate on what is applied with respect to church *sasi* –start with a lenient sanction and use stricter ones as the actions are repeated. When the actions are considered to be harsh or destructive, strict sanction can be applied. This clear sanction is vital, especially to protect the sites from the outsiders. To note, the principle needs to be coupled with the 4th principle, which is monitoring.

Design Principle 6: Conflict resolution mechanism

Enforcement of rules must be accompanied by a conflict resolution mechanism. Conflict resolution comprises clear rules on what the community should obey and what to do when someone violates the rules. Should the rules that are applied be the for the men and kids/old? Usually in traditional institutions –as is also case in Honitetu, Mornaten and Lokki –conflict resolution revolves around local negotiation. If no agreement is reached, third parties such as the police and military will be involved. However, this type of situation has never occurred.

It is important to note that data from the field showed only a few case of internal conflict which occurred within the community. Usually the conflict was about private land borders and rarely about the *adat* practice –*sasi* or rules about *sacred place* –but it was solved internally with the help of the *raja*.

Design Principle 9: Strength and resilience of institutional enforcement

Adat sasi and church *sasi* have different enforcement systems. While church *sasi* and sacred place rely on the spiritual belief of the community, *adat sasi* relies on the community's trust of the leader coupled with strict and equitable rules agreed by all.

I regularly heard how people respect the ancestors' spirit and adat as their core value and identity. Nonetheless, it did not clearly reflect how they govern their forestland and forest resource (with *sasi* and sacred place). The rules for *adat sasi* are too strict and people are not following them because they are not based on their needs. Combined with the leader's lack of attention on the implementation of *adat sasi*, these factors mean that the practices has only been partially implemented (on the raja's private garden in Honitetu). Furthermore, current multiple views on how to implement *adat sasi* with no clear procedures on the sanction[12] could create a room for the misused of *adat sasi* by those who have more power in the community –in this case the *raja* and *saniri*.

In the end, to increase the enforcement of *adat sasi*, clear rules and sanctions need to be formulated that accommodate the needs of the community and some sort of agreement has to be reached among the community. Moreover, the transparency of the *adat* government is also important, given that it is one of the factors that can affect the community's trust

Design Principle 11: Participation of actor

Participation is essential and must be promoted as it is one of the elements of good governance (UNESCAP, 2009). According to Nygren (2005), participation leads to an increase in the democratisation process. The participation of the communities in the decision-making related to

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[12] *adat sasi* can be used for both private plant and forest (see chapter 5) but the sanction for these two different resources is the same and being imposed by the raja.

the forest land and forest resources is quite low according to data from CIFOR[13]. The interview also revealed the absence of most of the community from village meetings. In regard to the election of the leader, Mornaten and Lokki used a democratic system to elect the raja. In Honitetu, Raja is still elected based on the hereditary system. Yet, it is important to note that elections do not always result in an actor that represents the community's interest, as also stated by Harkes (2006).

Design Principle 12: Location of decision making clear to actors

Rights to allocate the land and to manage a land falling into different hands. As a leader of the village and community, the *raja* is responsible for land division, especially in Honitetu. But, this case was not applied in the other villages, Lokki and Mornaten, seeing as most of my interviewees admitted that there is no need to inform anyone with respect to clearing new land. The management of the land then becomes the responsibility of the individual. In the decision making relates to the *adat* institution, the *raja* become the central point of the decision making. Additionally, there is a need for low cost conflict resolution for the institution to survive. In most of the villages, conflict within the community was solved internally. However, as the land border between the *adat* groups has not yet been legitimized, the risk of land disputes in the future is high.

Design Principle 7: Minimal recognition to organise

The 7th principle is about a condition where *adat* rules are at least being recognised by the local government, so that the rules can be exercised disagreements taking place in this case. Additionally, *sasi* can be applied without the fear of being stopped by the police. Likewise, the local government already acknowledges the presence of many *adat* groups in Maluku even though they are not recognised legally.

Design Principle 8: Nested enterprise

Based on Cox et al. (2010), nested enterprise refers to "governance activities organised in multiple layers", which is also a system that can be found in a successful institution. Based on Marshall (2008), 'nested governance complement decentralisation by providing lower units and an aid from higher a governance level'. *Sasi* as a way to govern the resource was nested in the *adat*.

The traditional *adat* system in West Seram used to have a nested horizontal system, with the head of the clan as the leader of the community belonging to a specific clan. Moreover, the head of the clan will report anything to the *raja*. The institution is called *saniri*[14]. However due to different

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[13] See Chapter 5, Figure 6.
[14] see the adat and modern structure on chapter 1

systems in each of the villages, the system regarding how the community can have a say on issues was not clearly explained. The fact was strengthened by data from CIFOR which shows the minimal participation[15] of the community in decision-making.

It should be pointed out that *adat* institution in Honitetu and Mornaten were nested within AMAN. AMAN is an NGO working on the indigenous problem and movement in Indonesia. AMAN could have a role as back-up system, as the organisation can help the community to defend their rights from outside encroachment. From the interview, I discovered that AMAN has a community representative, proving that the *adat* institution has a relationship with outside organisations. The presence of the Church could also support their existence as an *adat* institution (Novaczek & Harkes, 1999) and could potentially help with the implementation of *sasi*.

The *adat* people in West Seram are recognised by the government, though regulation to legalise their title as an *adat* community, as well as the ownership of the *adat* forest had not been established. Thus, the risk of losing their *adat* land or even having limited access to their *adat* forest is high. Nonetheless, the activity of the *adat* community does not have any serious obstacles. Access was defined by the *adat* institution and with or without legal access to the forest being granted by the State, people still carry out their activities inside forest. In the case of the Lokki, migrants have certain effect on the position of the Lokki as an *adat* community. The lack of respect regarding Lokki tradition as well as recognition of the Lokki as an *adat* community has made the position worse in contrast to the other villages.

- Sub research question 2

Design Principle 10: Durability and longevity of institution

The durability and longevity of an institution relate to their ability to survive for long periods. The presence of modernisation influences the way the community manages the resource (market demands) but the way *adat* institution copes with the presence of religion has an impact on how they see their tradition. Instead of the disappearance on the *sasi* practice, the Church incorporates this practice, making the 'idea' of *sasi* exist until now.

The *adat* has faced different type of situations, from the presence of colonialism, to dictatorship and democracy. I also believe that the *adat* is also a dynamic entity, meaning that it is fluid and can be influenced by any situation related to the states e.g., changing from the traditional structure to a more formal structure in 1974. In regard to the idea of tenure reform, it creates momentum for the *adat* institution throughout Indonesia to have their *adat* forest legally recognised. Although not everyone realises at this moment, some elites are really concern about this reform as I can

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[15] see chapter 5

clearly see from my research sites. The youngsters also know about *adat* and perceive *adat* as their identity. It's not like they forget about the *adat* itself and choose to ignore who they belong to. Therefore, at this moment, there is a chance that in the future, *adat* will still exist. The challenge is to establish an institution that allows the people to participate and benefit from forest and natural resources.

Secondly, adat practice such as *sasi* and the existence of sacred land are different to *adat* in my opinion. It is undeniable that *sasi* is part of *adat* but the existence of *sasi* really depends on the leadership. Does the *raja* allow people to participate in the decision-making concerning the forest? if not, there is a possibility that *sasi* implementation could fail, seeing as it does not reflect on the needs of the *adat* people. Maybe *adat sasi* is too complicated, or the rules are too strict. As they were not obliged to perform *adat sasi,* then it is likely that *adat sasi* was not applied. It is a pity, as *sasi* is actually a good tool to conserve the forestland and forest resources, and people do acknowledge the benefits of *adat sasi*. Nonetheless, the community's recognition of the advantage of *sasi* is not enough for *adat sasi* to be implemented.

8.2.3 On both: Institution and Traditional Ecological Knowledge

Design principle is a valuable tool with which to assess the condition of an institution. Based on the design principle, I ascertained that most of the principles were only partially met by the *adat* institution in the three villages. With the principles, I am able to identify the dependency of the *adat* community on their leader, hence affecting the implementation of *adat sasi* as TEK. Another thing is that the unclear procedures on how to regulate *adat sasi* with strict sanctions that were not formulated together with the community may also result this practice being used less.

Therefore, how can TEK be incorporated into institution theory? Design theory is a different to from traditional ecological knowledge (TEK). Consequently, the theory of institution and TEK can be combined to complement each other. In the case of *adat sasi,* I realise that *adat* sasi has two types of elements. It is a form of TEK but it is also an institution nested within adat institution. Therefore, in my case, I can combine the knowledge of *sasi* as a sustainable use of resources and identify a way to make a robust institution of adat *sasi*. In the case of sacred place, there is a need for a good institution to govern the place. Therefore, some of the principles are required to be able to govern the TEK. To understand the application of design principle and how it relates to the TEK, a summary is presented in Table 5. To note, the TEK in the form of *adat sasi* was not found in Lokki as also admitted by the *raja*. Therefore, TEK in the form of *adat sasi* was not found in Lokki, as the *raja* also admitted. Therefore, this type of traditional ecological knowledge is only in the form of the sacred place. The table also provides more general information on the situation in the three villages (i.e., *adat sasi* was not found in Lokki but in its own sacred place; therefore, the component of TEK is still obvious in Lokki).

Table 4. Institution Design Principles

Design Principle	Implementation in Honitetu, Mornaten and Lokki
1. **Clearly defined boundaries**	Boundary of the adat area is known by the entire *adat* community. The presence of TEK creates a different kind of boundary. The boundary of the *adat* itself is still contested, meaning that there is no formal agreement between each of the *adat* group regarding their *adat* territory.
2. **Congruence between appropriation and provision rules and local conditions**	The concept of TEK and rules bounded in TEK is appropriate for the local situation.
3. **Collective choice arrangements**	No collective choice arrangement present for TEK. However, in the three villages, I see that collective choice arrangement is an important component of the equitable implementation of TEK
4. **Monitoring**	Monitoring is weak, although there is a body called *kewang* responsible for monitoring the condition of the forest and compliance of *sasi*, the monitoring was not really effective. No clear responsibility stated for *kewang* and fund allocation for this activity.
5. **Graduated sanctions**	Informal graduated sanctions can be found in church *sasi*. Although not in *adat sasi* nor sacred place. Strict sanctions found in *adat sasi*.
6. **Conflict-resolution mechanism**	They have their own conflict resolution, primarily by way of negotiation
7. **Minimal recognition of rights to organize**	There is already informal recognition from the local government on the way *adat* governs the resource through *sasi*
8. **Nested enterprise**	There is an ideal procedure where the community is nested within the clan and the clan (through the head of the clan) will report

	anything to the raja (*saniri* system). However, the implementation of this principle is a bit weak and unclear (due to the changing/incorporating the formal structure into a more traditional structure). Moreover, *sasi* itself is nested within adat
	Adat institutions in Honitetu and Mornaten were nested within AMAN, whereas in Lokki, there is no information on the connection of any *adat* people to this NGO
9. **Strength and resilience of institutional enforcement**	The enforcement of *adat sasi* was quite weak. No clear description on what kind of resource needs to be protected by *adat sasi,* and what kind of sanctions applied
	For church *sasi* and sacred place, the enforcement relies on the belief of the people. The difference between *adat sasi* and church sasi & sacred place lies on the different authority who imposed the sanction.
10. **Durability and longevity of institutions**	I would say that adat is durable but the TEK in the form of *adat sasi* is vulnerable. Indeed, religion has a role in adopting the sasi that leads to different kind of use (church sasi). The idea of *sasi* is also everlasting, although people now refer to it as church *sasi*.
11. **Participation of actors**	Minimal participation of the community in all of the villages in my research sites
12. **Location of decision making clear to actors**	All the decisions within *adat* lie in the hands of the *adat* and the *saniri*. The adat community is not really involved in the decision making process and there is only a few meeting were held. Most of my respondents admitted that they did not attending meetings

Using the principles, I am able to indicate the current condition of the *adat* institution in the three villages. Whether the institution is weak or not, is hard to identify, seeing as it is not a qualitative study. This was a limitation with respect to this study. Design principles is a valuable theory to understand what a robust institution has, although trust, legitimacy and transparency are also important and need to be highlighted here (Cox et al, 2010).

The will of the *raja* and *adat* authority to better govern the forest is imperative. Furthermore, when the community trust their leader, they have the tendency to rely on their leader without really actively participating in the decision-making process. This condition is similar to what Harkes (2006), found in the field. However, I still think that to encourage community participation is also important here. Participation will then ensure the work of the institution and avoid misuse of power in *adat* institution. Additionaly, increasing community participation will also increase the transparency of *adat*. Evidence from Harkes (2006), also revealed on the importance of a legitimate leader who is able to work together with the Church and other parties to make *sasi* in the area work; hence, increasing the benefit of *sasi* in relation to the resource management. Norm and rules are also important to ensure management of the forest resources. It is owned by the *sasi* and sacred place as TEK. In addition, re-organization of *sasi* practice coupled with increased capacity of the institution (monitoring, decision making, participation) might have positive influence on the significance of the *adat* institution in the forestland and forest resource governance in West Seram, Maluku. The *kewang* (monitoring) also needs to be enforced by allocating some funds and training to make the monitoring system work effectively (Harkes, 2006).

Based on institution theory number 10, the duration of the institution is related to the condition of the common pool resources. *Adat* forests still exist and people can still utilise the resources. Furthermore, we can find and regularly hear that adat institutions still exist in Maluku. Nevertheless, with the poor performance of the institution, how can it manage the forest? The low number of user groups besides the system in which land is being passed on to children can be two reasons for the situation in Honitetu, Lokki and Mornaten. Yet, with the village population increasing, the need to have more land can indicate a greater risk of deforestation if the *adat* institution does not take any action to prevent it.

Design principles provide a general framework for assessing the institution. However, this principle makes me think in the box. The downside is that I forgot that all of the principles are connected to each other. TEK itself is an entity that has the potential for sustainable use of resources. Furthermore, the role of the design principle here is to ensure that the *adat* can deliver the benefit of TEK to all of the *adat* community in the three villages.

8.3 *Adat* institution and tenure reform

In this thesis, I ascertained that the idea of forest tenure reform gives the *adat* institution the opportunity to gain power to own forest land. By legitimising the '*adat*-ness' of a group in the form of perda, the *adat* people protect themselves from other types of outside interference, which also comprises migrants. I perceive this phenomenon to be a positive sign, meaning that the adat people understand the opportunity for them to acquire legal ownership of the *adat* forest. The question now is who exactly are those people that understand the opportunity associated with tenure reform and gain power from it?

As I explained earlier, the knowledge related to tenure is only owned by the elites – the *raja*, head of the clan and members of the *saniri/*BPD. Thus, not all of the adat community realise how they can benefit from tenure reform as *adat*. Most of the *adat* community only accept what has been given. They follow any decision made by the *raja*. Examining the poor participation of the community and how the community have scant knowledge on tenure and tenure reform, I am afraid the goal of poverty alleviation that is the aim of tenure reform would not be met. Tenure reform gives the *adat* the right to own the *adat* forest, hence any company – plantation or logging company – will need direct permission from the *adat* institution if it wants to operate in the *adat* area. Presently, the *raja* may think that the *adat* forest is important for the community to legally operate inside the forest. However, we cannot assume that the situation now will be the same as in the future when facing economic pressure. Hence, the way the *raja* thinks about the presence of the company will also shift. Instead of reducing land use by means of commercial plantation, there might be a chance for plantations to operate in the *adat* area. At a time when tenure reform is finally present, and the *adat* community still have a poor voice concerning decision-making and monitoring of the forest situation is weak, there will be no difference. Then the rights acquired will only benefit the elites and burden the rest. Further, Wollenberg and Kartodihardjo (2002), were concerned about loss of benefits for the community due to the presence of another powerful stakeholder. To handle this concern, increase participation of community is required to decide on a plan to handle the presence of the company. The needs and voice of the people have to be clear and heard by the *raja* and the other elites. Additionally, decisions on how to handle internal as well as external conflict also have to be emphasised. Contreras-Hermosilla & Fay (2005), also suggested the introduction of a programme that could increase transparency in relation to decision-making.

A further implication of the tenure reform is concern about the 'us' (*adat* people) vs 'them' (*outsider*). Forest dependent people in West Seram are not only limited to the *adat* but also the migrants. Therefore, there might be a risk of migrant exclusion that creates a new problem (Henley & Davidson, 2008). However, I find that the risk of alienation of groups 'other than the

adat' is unlikely to materialise in the three villages. This is because of the communal sense present in the community that welcomes migrants to the area and to manage land instead of prohibiting them. The a*dat* institutions are open to their presence –as long as they respect the *adat* –and the *raja* takes care of the land division in the village. The conflict in 1999 might also have an impact on the way *adat* people see the future.

8.3 What about the current situation of the forest?

It is important to note that the good condition of the forest resulted in the longevity of the adat institution and was an assumption that emerged prior to the field visit. Is it still the case? Based on my interview with the community, they still think that the forest surrounding their village was still in good condition. However, when I attempted to ask about the situation in the past and the situation now, they admitted that in the past the situation was far better. It is understandable to hear from the community that the forest is in' good condition', as they perceive good to be "full of green trees" regardless of the types of trees that exist there. Moreover, as long as the forest still provides benefits for people, they will recognise the condition of the forest to be good (GCS Tenure Data, 2017). In Chapter 6 under information on the adat and economy, I have explained the dominant tree species present in the forest garden. Additionally, current planting resembles an agroforestry system that is known to act as a buffer between plantations and forest. The situation explained why people always refer to their private garden as the 'forest' and that their forest garden has supported community life until now.

The land division[16] that follows the hereditary system has also become one of the factors that limits the clearing of new land in the three villages. The *Dati* system especially has a unique quality as it might also offer a way of preventing conflict over land within the family. The positive side of the land division systems in the three villages is that people will only take care of their own land. Any activity related to resource extraction occurs only on individual land, whether it is the extraction of agro related commodities, vegetables, or even wood to use as fuel. The downside might be that the extraction of these resources will also include illegal logging which is covered under the statement, "we can do anything on our 'own' land". When I asked about whether any logging activity still occurred in their village, I was informed that no company is operating in the area and the logging was carried out individually or in a group consisting of locals. The results from CIFOR's previous study helped with understanding the current activities that affect the forest situation.

Based on the questionnaire, increased illegal logging is the first factor – perceived by the community – that had resulted in deforestation to the forest compared to the past, followed by

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[16] See Chapter 4

changes in land use (agriculture)**.** This implies that deforestation is indeed happening in the area albeit on a small scale. Conversely, my interview showed how the community's perception of logging is blurred. Some said the logging might cause the volume of water in the river in Honitetu to decrease (personal communication, 2017), while others said that there's no problem in cutting down the trees as long as they are re-planted. Thus, the concept of replanting was seen by the community as a solution to the issue of logging. This can be supported by their perception of 'good forest', as explained in the first paragraph. The contradictory results from the community which considers that illegal logging creates a situation in the forest that is worse, vis-à-vis the acceptance of logging on private land, raises a question about what is actually happening in the village? Furthermore, in this case, the distinct awareness regarding logging and on the situation of the forest might have resulted from the ambiguous rules in relation to forest land and forest resource extraction, and, on what is and what is not allowed. This also implied the absence of a space for the community to voice their opinions on the condition of the forest and practice. For now, it seems that some people's worries about logging only stops at 'themselves'. It should be stated that the lack of monitoring activity in the three villages also influenced the state of the forest.

To conclude, the current impact of the implementation of *sasi* is not actually apparent in the three villages. The domination of church *sasi* may have a small impact on the environment yet I am afraid it will not really influence the forest situation in general. Conversely, the existence of the sacred place as in the case of the Lokki can protect the trees and water, given that it restricts the access of people to the area. The result can be seen from the continuous provision of water in the villages that benefits the Lokkis. For the other villages, the sacred places that are located far from the village can also act as a 'restrictive factor' in addition to the belief of the community. Nonetheless, there is need to enforce monitoring in areas surrounding the sacred place to ensure that illegal encroachment by other groups or outsiders does not occur.
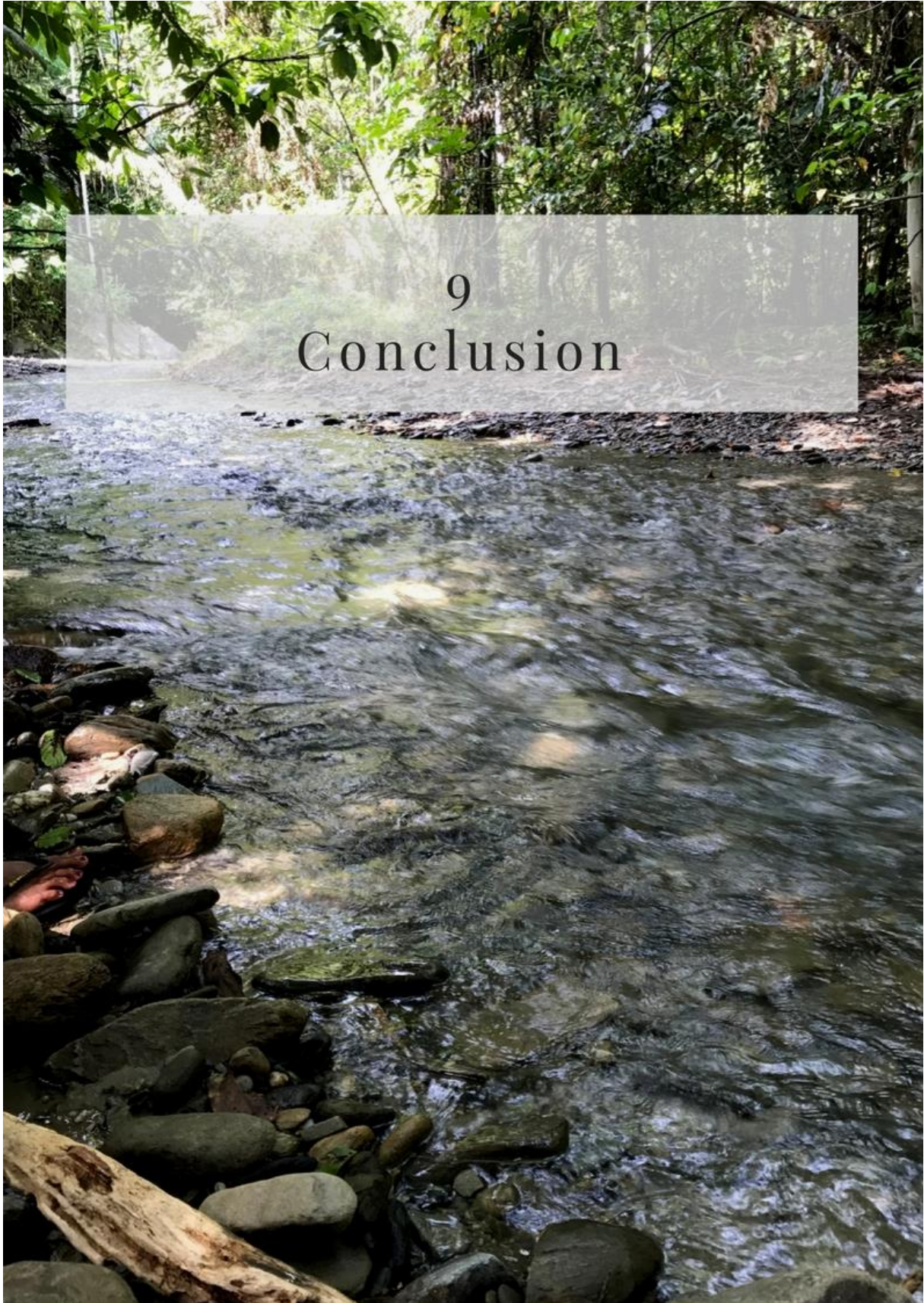
9
Conclusion

Chapter 9. Conclusion

The general aim of this study is to identify the implication of current adat institution on the future implementation of forest tenure reform. The State has created the reform with the hope that forest dependant people – in this case the *adat* people – can improve their lives with the ownership rights provided by the Government. By having this right, adat people can secure the adat forest from any private company that wants to acquire it and moreover, they can utilise the forest resources legally. This conclusion will be presented following the sub research questions.

Firstly, *Adat* institution manages the forest land and forest resources for generations. Presently, most of *adat* institutions carry out a practice termed *sasi*. *Sasi* is perceived as the protection of resources and is considered to be an ancient practice. However, *sasi* is now dominated by church *sasi*, a practice that has been adapted by the Church. Only a few *adat sasi* can be found in my study sites. An alternative way of managing forest land and forest resources is through the sacred place. A place believed to carry the spirits of the ancestors. Resource extraction is strictly forbidden and destruction of the place can lead to death. Those two systems – sasi and sacred place – play a role in shaping the condition of the forest land and forest resources in the study areas and the value of taboos embedded in the two systems is also a value that can be found in traditional ecological knowledge (TEK). The rules created by the *adat* regarding how to divide the lands, the practice of *dati* (land with no owner, owned by family) also affects the condition of the forest land in the villages.

Unfortunately, the existence of these practices has not been coupled with strong rule enforcement and monitoring. A lack of funding as well as low participation by the community can be an indication of the lack of monitoring and an enforcement system. However, social capital enables the community to perform an activity inside the forest every day, and that the norms and rules lead to a different kind of graduated sanctions and individual monitoring. it is important to note that those sanctions and individual monitoring really depend on the relationships between people and are not applicable to all the components (i.e. monitoring of forest condition in general or compliance of the *adat* rules).

Secondly, Rules enforcement, sanctions, as well as the way the community face modernisation have certainly influenced the condition of the forest. Yet, with only a few principles met by these institutions, the forest still provides resources for the community. Continuous provision of the resource however is also the result of the agroforestry system. The land division system besides the small size of community also supports the current low rate of land use change in the three villages. The point that I want to highlight here, is that there is diverse opinion on what is allowed and what is not on their own 'private' land. Some said that as long as logging or the extraction of

resources takes place on individual property, it is acceptable if the actor responsible is the owner of the land. Nonetheless, others expressed disagreement regarding the deforestation activity.

Thirdly, most of the people acknowledged that logging is not allowed but only a small number of people know the function of the protection forest. What the community does understand is the *adat* forest is always theirs. In the past, the people had to fight to acquire the land and what the *adat* community have now is a vast area of *adat* forest inherited by their ancestors. Subsequently, when the *adat* forest is finally given to the community by the State, there will be no difference. In contrast, the most important thing for the local government is that the community performs activities inside the forest legally. Nevertheless, the two different perspective on the importance of tenure reform have to be bridged, or else none of the initiatives will benefit anyone.

Overall, the community needs to have knowledge of the importance of the government's legal recognition of their status as *adat* and the land under *adat* jurisdiction. Therefore, participation of the community in decision-making regarding the *adat* forest, as well as in the monitoring process is vital. Rules and sanctions have to be clear for everyone and conflict resolution must be defined earlier to avoid complications in the process. Moreover, funds allocated for the monitoring process, especially in complying with the rules, besides in monitoring the condition of the forest is another aspect that should be stressed.

Further, the Church in this case can work together with the *adat* authority to enforce the rules. The inseparable value of *adat* and religion in the three villages needs to be focused on because this situation can actually help or undermine the governance of forest land and forest resources. The Church can always deliver knowledge on the importance of the sustainable use of resources, especially when the value really fits with the religion's value. The dialogue between the Church and the *adat* institution can also generate discussion on the *adat* villages plan to govern the forest land and forest resources with assistance from the Church. In this way, the community's trust can increase as they see two institutions that they believe can work together for the good of the people.

To add, dialogue among each of the adat groups is essential. The forest agency unit can have a role here in providing an arena or moment when each of the adat groups can discuss and establish how to work together when facing the implementation of tenure reform. The a*dat* in West Seram is quite unique because almost all of the villages there are *adat* villages. Meaning that West Seram is filled with several *adat* groups that work in different ways. Additionally, uniformity on how *adat* groups work and govern the forest land and resources is not the aim here, it is more about knowledge sharing among the *adat* groups.

In regard to the theoretical framework, the combination of Ostrom's (1990) design principle theory, in addition to Agrawal & Chhatre (2006), Cox et al. (2014) and Ingram et al. (2015), helps

to understand the current state of the *adat* institution in the three villages. By separating the requirements of robust institutions into several numbers, I am able to identify the aspects that require attention from the *adat* institution. The challenge I found when using this theory is that the principles are too general and open to any sort of interpretation. Moreover, the religious aspect of modernisation does appear to fit into the design principle, whereas the influence of the economy and technology do not visibly fit into those principles. Only if the value of TEK can control the use of certain types of technology in over exploitation and land use change will it possibly fit the design principles.

Traditional ecological knowledge offers various ways to identify the knowledge which is usually combined with taboos and beliefs in supernatural forces. These norms help in enforcing the rules and believes and play a role in enforcing the rules applied for the practices – in this case *sasi* and traditional ecological knowledge. The combination of these two theories then helps in formulating several improvements to the institution in governing forest land and forest resources.

Rather than incorporating traditional knowledge into the design principles, I looked at how traditional knowledge can be applied to the institution by way of following the design principles. Nevertheless, to use the design principles, we need to be careful not to think of the principles separately. One principle connects to the other. For instance, monitoring and sanctions actually belong to every principle. Moreover, monitoring is required to control the border, compliance with the rules, in addition to the work of the government itself.

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Appendix I Maps of Study Area
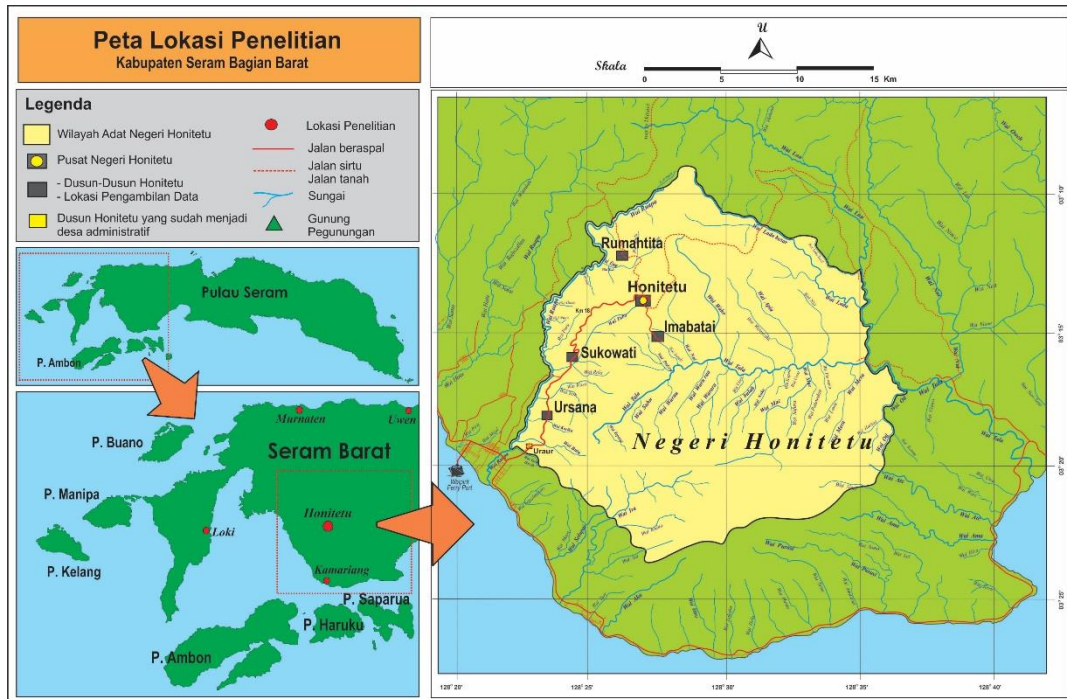
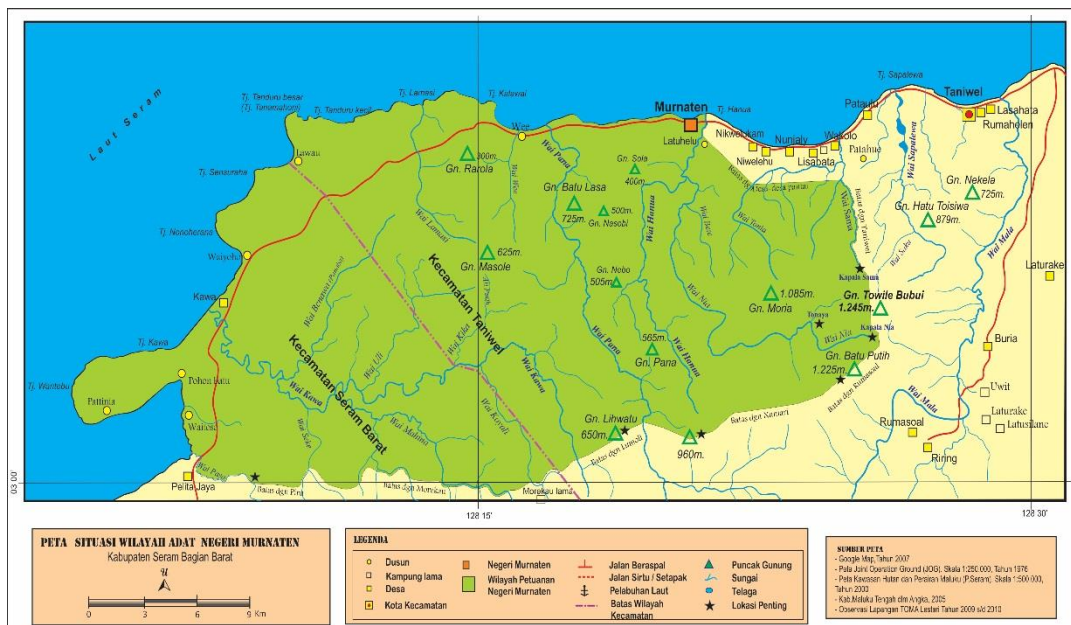**A map of Honitetu (Source : Cifor)**

A map of Mornaten (Source : Cifor)

A map of Lokki (Source : Cifor)

Appendix II List of Informants

Legend:

#: Informant's number

SI: Semi-structured interview

II: Informal interview/conversation

KI: Key informant interview

M: Male

F: Female

List of Respondents

#	Name/Institution	Gender	Place	Date	Methods
1	Doland	M	Honitetu	08-10-2017	SI on the *adat* practice in Honitetu
2	Andi	M	Honitetu	08-10-2017	SI on the *adat* practice in Honitetu
3	Debi Molly	F	Honitetu	05-10-2017	SI on the *adat* practice in Honitetu
4	Ayu Adani	F	Honitetu	05-10-2017	SI on the *adat* practice in Honitetu II on the rituals of *adat* and regular activity of the community. II also relates to the common methods which were used by the local community in forest and resource extraction as well as the type of animals being hunted in the area
5	Petrus	M	Honitetu	07-10-2017	SI on the *adat* practice and methods use in forest resource extraction
6	Ruben Iyai	M	Honitetu	07-10-2017	SI on the *adat* practice and methods use in forest resource extraction
7	Christina	F	Honitetu	05-10-2017	SI on the *adat* practice in Honitetu
8	Eba	F	Honitetu	07-10-2017	SI on the *adat* practice in Honitetu
9	Yance Laiuluy	M	Honietu	06-10-2017	KI on the *adat* practice, history and rituals in Honitetu
10	Toni Terbiari	M	Honitetu	07-10-2017	KI on the *adat* practice, history and rituals in Honitetu. The interview also related to his role as AMAN activist

11	Hems	M	Honitetu	05-10-2017	KI on the *adat* practice, history and rituals in Honitetu
12	Poli Terbiari	M	Honitetu	07-10-2017	Si on the *adat* practice and methods use in forest resource extraction
13	Karel	M	Honitetu	05-10-2017	SI on the *adat* practice in Honitetu
14	Lattu Pieter	M	Honitetu	-	II on the *adat* practice in Honitetu in the past and its condition now, *adat* structure and problem face by *adat* institution in relation to the forestland and forest resource governance
15	Benny	M	Lokki	24-10-2017	SI on the *adat* practice in Lokki
16	Glenn	M	Lokki	24-10-2017	SI on the *adat* practice in Lokki
17	Rensya Haurisa	F	Lokki	22-10-2017	SI on the *adat* practice in Lokki
18	Sartje Hahijary	F	Lokki	22-10-2017	SI on the *adat* practice in Lokki
19	Hubert Sitania	M	Lokki	22-10-2017	SI on the *adat* practice in Lokki
20	Ricardo Latussia	M	Lokki	22-10-2017	SI on the *adat* practice in Lokki
21	Ann Pesulima	F	Lokki	21-10-2017	SI on the *adat* practice in Lokki
22	Mei Patianakota	F	Lokki	21-10-2017	SI on the *adat* practice in Lokki
23	Andrew	M	Lokki	21-10-2017	KI on the *adat* practice, history and rituals in Lokki
24	Nani	M	Lokki	23-10-2017	KI on the *adat* practice, history and rituals in Lokki
25	Ricardo Purimahua	M	Lokki	21-10-2017	KI on the *adat* practice, history and rituals in Lokki. II on the condition of *adat* community in Lokki as well as the challenges that *adat* institution in Lokki face especially on the issue of the conflict with the migrants
26	Salmon Patianakota	M	Lokki	23-10-2017	SI on the *adat* practice and methods use for forest resource extraction in Lokki
27	Daniel Putilihalat	M	Lokki	23-10-2017	SI on the *adat* practice and methods use for forest resource extraction in Lokki
28	Yheskel Nurue	M	Mornaten	15-10-2017	KI on the *adat* practice, history and rituals in Lokki. II on the *adat* condition in Mornaten as well as the

					challenge that *adat* people in mornaten face in terms of forest and resource management in the area.
29	Baruck Elly	M	Mornaten	16-10-2017	SI on the *adat* practice in Lokki
30	Melos siai	M	Mornaten	17-10-2017	SI on the *adat* practice in Lokki
31	Martha siai	M	Mornaten	15-10-2017	SI on the *adat* practice in Lokki
32	Eka Nurue	F	Mornaten	17-10-2017	SI on the *adat* practice in Lokki
33	James Nurue	M	Mornaten	16-10-2017	SI on the *adat* practice and methods use for forest resource extraction in Lokki
34	Annonim	M	Mornaten	16-10-2017	SI on the *adat* practice in Lokki
35	Leni Towe	F	Mornaten	15-10-2017	SI on the *adat* practice in Lokki
36	Diana Latue	F	Mornaten	15-10-2017	SI on the *adat* practice in Lokki
37	Stefanus Latue	M	Mornaten	15-10-2017	KI on the *adat* practice, history and rituals in Mornaten
38	Oktovianus Latue	M	Mornaten	16-10-2017	KI on the *adat* practice, history and rituals in Mornaten
39	Chistian Ulate	M	Mornaten	16-10-2017	KI on the *adat* practice, history and rituals in Mornaten
40	Feri Latue	M	Mornaten	16-10-2017	SI on the *adat* practice and methods use for forest resource extraction in Mornaten
41	Hanis Latue	M	Mornaten	16-10-2017	SI on the *adat* practice in Lokki
42	Leni Syaranamual	F / Forest Management Unit	Piru	31-10-2017	KI on the forest management practice in West Seram District
43	Sahala Simanjuntak	M / BPSKL	Ambon	01-11-2017	KI on the social forestry scheme and its implementation in the Maluku Region
44	Luther Siruru	M/ Bappeda	Piru	29-10-2017	KI on the land planning in the West Seram District
45	Sadly & Isnain	M/ Forestry Agency	Ambon	01-11-2017	KI on the forest management practice in Maluku Province

Appendix III Interview Guide

A. Interview guide for key informant interview and *raja* of *adat*

Name:
Age:
Information on *adat* village history
1. Can you explain the history of this village? from the first settlement to this place?
2. Can you explain the procedure of land division here in this village?
3. How do *adat* people here acquire their land?
4. How do you know who belongs in this village and who does not?
5. Can you explain about the *adat* government structure in this village?
6. How many km does the area of *adat* village span? How many sub villages and from which point to point does *adat* area occupy?
7. What is the dominant occupation here in this village?
***Adat* rules and practice**
8. Are there any *adat* rules in forestland and forest resource management in this area ?
9. What kind of sanctions apply for those violate the rules? Who give the sanctions?
10. What is the role of church here in this village? Does church also take care of the management of forestland and forest resource here or only the private plants and crops?
11. Is there any monitoring system applied in the village? monitoring of the forest condition, village border or monitoring of rules compliance?
12. Is there any change in *adat* rule regarding the forestland and forest resource? if yes, can you explain the change?
13. Does *adat*/village hold any meeting? when exactly is the meeting?
14. How does *adat* institution solve a conflict regarding the land and forestland and forest resource?
15. Do you know if there's any sacred places in this villages
Economics, Religion and Technology
16. Are there any companies operated in this village? if no,
17. Were there any companies operated in the past? Do you know why did they stop operating in this village?
18. Do you agree on any presences of logging/plantation company in this village?
19. Are there any NGO that works together with *adat* institution here in this village?
20. Are there any programs implemented by NGO or government regarding forestland and forest resource management?

21. In which place exactly does the program establish?

22. Do you often hold meeting with these NGOs or government officials?

23. Does this program influence community's income?

24. Do you think this program can support *adat* in managing forestland and forest resource?

25. Are there any changes in traditional practices and knowledge as a result of this program?

26. Was there any program that fails? What is it? And why do you think about the underlying reason of the failure?

Forest Tenure Reform

27. Do you know any social forestry program? has it already applied here in this village?

28. Do you think government's legal recognition on *adat* people and *adat* forest in Maluku is important?

29. What do you think the reason of this absent (legal recognition)?

B. Interview guide for the *adat* community

Name:

Age:

Place of birth :

Forest resource management

1. How many times do you usually visit the forest in a week?

2. Do you have your own land here? how did you get it? from buying or from your parents or is the land a grant from someone?

3. Since when do you start planting?

4. What kind of crop do you plant?

5. How do start planting? From the preparation of the land to the planting the seedling?

6. Where do you usually get the seedlings?

7. Do you plant the same crops since the beginning? Or are there any plants that are not planted anymore or are there any plants that are just planted?

8. Do you burn the land before planting? In which month do you start burning your land ?

9. Will you stop planting in the future?

10. Do you hunt? How many times do you usually hunt in a week?

11. If yes,

12. What kind of animals do you usually hunt?

13. How many km do you usually walk from the edge of village to the hunting spot?

14. Since when do you start hunting? On what age?

15. How do you know hunting? Do you usually hunt by yourself or together with your relatives or friends?
16. How do you compare the hunting now with the past? Can you still find it easy to hunt now?
17. Do you sell the hunting product or eat it with your family?
18. How do you see the forest in this village?
19. Will you take specific age of animals or do you just hunt any animals that you found regardless of the age ?
20. Do you take any birds such as cockatoo ? can it easily be seen inside of forest?
21. Do you sell the cockatoo ? for how much do you sell it?

Adat rules and practice

22. Is there any *adat* rules that restrict the extraction of the crop at certain time?
23. Is there any specific time when you are not allowed to hunt? Or can you go hunting everyday as you prefer?
24. Is there any *adat* rules applied inside of forest, where there's a restriction to hunt in certain place in certain time?
25. Is there any *adat* rules applied inside of forest, in regards to the restriction of certain animals or certain age of animals to be hunted?
26. Does the rule have sanctions? If yes, can you explain what sanctions apply for rule violation?
27. Is there any specific people who monitor the forest condition?
28. Do you know if there's any sacred places in this villages?
29. Is there any village/*adat* meeting here in this village? When exactly is it? every week or every month etc?
30. Do you usually attend the meeting? If yes/no, why?
31. How do *adat* people here resolve the internal conflict?

Economics, Religion and Technology

32. What kind of tools do you use for hunting? And how do you hunt?
33. Are the tools you use the same as in the past when you first start hunting?
34. Are there any rules regarding the management of forest resource or garden resource? can you explain about it? what is it, how can you apply it, who do you need to meet in regards to the rule enforcement, in which time does the rule apply? What are the sanctions applied for this rule?
35. Is there any logging company/plantation operated in the village?
36. If not,
37. Was there any logging company/plantation operated in the past?

38. Do you know the reason why this/these company/companies stopped their logging operation?

39. Do you accept any presence of logging company/plantation here in this village? If yes/no why?

Forest Tenure Reform

40. Do you know if there's any protected forest in this village?

41. Do you know anything about government's program on the social forestry scheme like village forest, or community plantation?

42. Do you think it is important for government to legally acknowledge the village as *adat* village or the forest here as *adat* forest? Or it will give no change for community's life?

43. What do you think about the threats for the forest here?

44. Who is the owner of the forest in this village? Does it belong to the state government, local government, *adat* government or you?

45. What do you hope for the future *adat*? What do you think about it? will the *adat* still there in the future? Do you still think that *adat* is important for the community, for your family and for yourself? Can you please explain why ?

C. Interview with Government officials

Name:

Age:

Agency:

Information on the agency

1. Can you explain the work scope of this agency?

2. Can you explain the role of this agency in the land use planning of West Seram District?

3. Who participate in this land use planning?

4. Can you explain the percentage of land use in West Seram District?

5. What are the criteria of protected forest, conservation forest and community plantation?

6. What kind of problem that arise in this land use planning internally and externally?

7. What kind of forest monitoring system implemented in West Seram District?

8. Will the title of protected forest or conservation forest change?

Forest Tenure Reform

9. How is the implementation of *adat* forest program in West Seram district?

10. What are the obstacles of the *adat* forest recognition?

11. What are the goals of social forestry scheme?

12. Since when does the issue of social forestry scheme arise?

13. How is the implementation of this social forestry scheme in West Seram District?

14. What are the obstacles of this implementation?

15. What are the differences between *adat* forest and other social forestry scheme?

16. What do you think about the management of forestland and forest resource carried out by the *adat* community?

17. What are the important aspect that needs to be fulfilled by *adat* community in order to gain a legal recognition of their status as *adat* people and their forest as *adat* forest?

Appendix IV Coding

Category	Code [17]
Adat practice	
Land division	ID
Adat rituals	ID , FN
Specific land use methods	ID ,FN
Time for *sasi*	ID
Sasi sign	ID
99 conflict	ID , FN
Frequency to the forest	ID
Sacred place	ID
Adat stURCture	ID, FN
History of the village	ID
Belief in supernatural forces	ID ,FN
Sign for the private land border	ID ,FN
Raja's selection	ID ,FN
Land and natural resource conflict	ID
Adat and religion	ID , FN
Adat/village meeting	ID
Modernisation	
Methods of extraction	ID , FN
Forest Commodities (wildlife and NTFP)	ID
Protein and Vegetable supplies	ID
Adat and religion	ID , FN
Contrasting perspectives	
danger to adat	ID
community's role on perda	ID
Adat forest vs other social forestry	ID
KPH and other government agency (BPSKL and dinhut)	ID
Reviving of Adat	ID
Obstacle to social forestry scheme	ID
social forestry scheme function	ID
migrants	ID , FN

[17] ID : Interview Documents; FN : Field Notes