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FOREST OWNERSHIP CONFLICT BETWEEN A LOCAL COMMUNITY AND THE STATE: A CASE STUDY IN DHARMASRAYA, INDONESIA

A Mutolib^{1,*}, Yonariza², Mahdi² & H Ismono³

¹Department of Agricultural Sciences, University of Andalas, 25163 Padang, Indonesia

²Departement of Agribusiness, University of Andalas, 25163 Padang, Indonesia

³Departement of Agribusiness, University of Lampung, 35141 B. Lampung, Indonesia

**amutolib24@yahoo.com*

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Forest ownership conflict in Production Forest Management Unit (PFMU) Dharmasraya, West Sumatra occurs due to legal pluralism in forest ownership. The local community claims the forest as *tanah ulayat* (communal land) but the state claims the forest as state land. Due to this legal pluralism, forest grabbing by the local community has been rampant. The forest land is then converted into communal plantations of rubber and oil palm. In the year 2000, the local community grabbed a forest area in PFMU, about 86.35% of 33,550 ha, and by 2015 the forested area had been reduced to 18.89%. In the same period, the community plantations of rubber and oil palm in PFMU increased from 10.24 to 71.23%. Deforestation in PFMU occurred rapidly because the local community considered the existence of the forest unimportant and preferred to convert forest into oil palm and rubber plantations.

Keywords: PFMU, legal pluralism, ulayat land, deforestation, plantations

INTRODUCTION

Indonesia has the world's third largest tropical forest, after Brazil and Democratic Republic of Congo. The level of biodiversity is the second highest after Brazil (Ministry of Environment 2009). According to Purba et al. (2014), between 1985 and 2013, 50.5 million ha or 40.71% of total forest area in Indonesia was lost. The rapid rate of forest destruction is due to the extensive conversion of forest land to agriculture and plantations (Kobayashi 2004, Killeen et al. 2008, Ting et al. 2010, Dalla-Nora et al. 2014) and illegal logging (Aragão et al. 2008, Gascon et al. 2001). Such activity occurs because the forest is accessible, making it easy for people to cut down trees and farm in the forest area (Zuhriana 2012). Many people depend on the forests for agricultural activity. Chao (2012) indicated that 80–95 million Indonesians depend on forest resources and agricultural activity for survival (Pandit & Bevilacqua 2011).

These populous communities who live around the forest areas often cause conflict over their forest activities (Puspitojati et al. 2012, Harun & Dwiprabowo 2014, Sylviani et al. 2014). Forestry conflict is caused by economic pressures and

issues over forest ownership. Economic factors drive people to destroy forest in order to gain the necessities of life. Plurality of land ownership laws results in conflicting claims between the community and the government resulting in forestry conflict (Hubert 2013).

Forestry conflict, resulting from legal pluralism, occurred in Production Forest Management Unit (PFMU) Dharmasraya, West Sumatra. According to state law, this area is a forest, controlled by the state. However, customary law regards the 33,550 ha forest as *ulayat* (ancestral) forest, owned by the indigenous Melayu people. Due to the conflict between legal claims, the local population has been engaged in a struggle to gain rights over this forest land since 2000 to establish rubber and oil palm plantations. As a result, rapid deforestation and conversion to plantations has occurred (Mutolib et al. 2015).

A point of interest in this struggle over forest in PFMU is the *adat* (customary) law which has played a more powerful role than the nation's regulations. This is in contrast to other areas where customary laws are much weaker than state regulations. It is important to explore the

community's motives in claiming the forest, at a deeper level. Is the motivation purely an economic drive? If so, why is the forest so often destroyed and the land left fallow? This phenomena is observed on a large scale year after year. It seems clear that factors, other than the economic need to develop plantations, are at work. The goal of this study is to discover the customary laws and state laws in conflict and the deeper motivation behind deforestation by the local community in PFMU Dharmasraya.

MATERIALS AND METHODS

Study site

A case study approach was employed with research conducted in the Nagari Bonjol, sub-district of Koto Besar, Dharmasraya Regency, West Sumatra, Indonesia. Kabupaten Dharmasraya is 220 km to the east of Padang City, the provincial capital of West Sumatra. Dharmasraya district has an area of 3025.99 km² and is generally flat, with elevations ranging between 82 and 1525 m above sea level (BPS 2014). Dharmasraya district has extensive oil palm and rubber plantations, the largest in West Sumatra (BPS West 2015). Most of the land in the district of Dharmasraya is used for agriculture, i.e. 88.26% of the total land area. Dharmasraya still maintains some lowland forest, about 92,950 ha.

Data collection

Both primary and secondary data was collected between January and April 2016. Secondary data was collected from relevant agencies such as PFMU representative, Dharmasraya Bureau of Statistics and Dharmasraya Forestry Service. Primary data was collected using participant observation, key informant (KI) interviews, collection of secondary data and household surveys. The KI interviews were identified using snowball technique and the household survey used simple random sampling with a sample size of 41 households. A total of 23 KI interviews were conducted with traditional leaders (*ninik mamak* and *datuak customary authorities*), *nagari* leaders, institutional leaders, government and those holding concessions. The study also included anthropological observation, in which the researcher stayed within the community for four months, to obtain more reliable, valid and

accurate information, identify legal pluralism and ownership conflicts in PFMU Dharmasraya.

Data analysis

Data was analysed using descriptive-qualitative tools, to explain whether the *ulayat* forest system has ensured equality for women in the Melayu clan. Data analysis followed the approach described, using data reduction, data display and conclusions (drawing or verifying) to provide a descriptive answer to the research questions (Miles & Huberman 1994).

RESULTS AND DISCUSSION

Communal land of Melayu clan

Ulayat denotes village land or territory, comprising of land, forest, water minerals and grazing land. *Ulayat* land is communal land owned by joint owners and distributed among the founding clans of the village and administrated by the heads of clans (Holleman 1981). *Ulayat* property is regulated by Minangkabau traditions and is inherited from one generation to the next through the female line. However, it is the *mamak* (the mother's brothers) who hold the decision making rights over *ulayat* lands (Navis 1986). Legally, as customary forest law, PFMU Dharmasraya is *ulayat* property of Melayu clan in Nagari Bonjol. It is unclear how extensive this communal forest extends. According to information gained from in-depth interviews, it was claimed that 66,000 ha of Perseroan Terbatas (PT) Ragusa land was originally *ulayat* forest. Currently only 33,550 ha of Melayu *ulayat* forest remains in PFMU Dharmasraya (Mutolib et al. 2015). After the PT Ragusa concession expired in 2002, 32,450 ha of forest was converted into oil palm plantation by Andals Wahana Berjaya (AWB), PT Selago Makmur Plantation (SMP) and PT Incasi Raya. In yielding the forest to oil palm industries, the owners had an agreement with the Melayu community, and so the land was released from its *ulayat* status. Currently, the entire forest of PFMU Dharmasraya is claimed to be Melayu *ulayat* forest.

Although the Melayu *ulayat* forest is communally owned, it is managed by the *datuak* as the highest authority over *ulayat* property along with several other male relatives. The *datuak* controls *ulayat* lands according to the

needs of the community. The *datuak* in authority in PFMU has the title of *Datuak Mandaro Kuniang*. He and a number of male relatives (the *mamak* of the woman who inherited the land and the *datuak* of the clans) have the traditionally ascribed role, authority and control of the forest. According to custom, the forest is an asset to be used for the welfare of the entire community (Mutolib et al. 2015).

Legal pluralism of forest ownership

Legal prularalism and overlapping forest ownership between local community and the state

In 1986, the anthropologist, John Griffiths, introduced a binary distinction between what he termed ‘strong’ and ‘weak’ legal pluralism, the substance of which came to be widely recognised as a basic point of reference (Griffiths 1986). Variations on this nomenclature would include ‘classic’ versus ‘new’ legal pluralism or even the more transparent ‘juristic’ versus ‘sociological’ legal pluralism (Merry 1988). According to Griffiths, ‘strong’ (i.e. new, sociological) legal pluralism referred to and resulted from the fact that not all law is administered by a single set of state-sponsored institutions. “Weak” (i.e. classic, juristic) legal pluralism, on the other hand, referred to situations in which a state or sovereign power recognised, validated and backed different bodies of law for different groups in society (Griffiths 1986).

The plurality of legal terms refer to the coexistence and interaction between multiple legal orders (Meinzen-Dick and Pradhan 2001) or the various legal mechanisms applicable in the same state (Vanderlinden 1989). Legal pluralism of forest ownership led to conflict between the local community and the state. Conflict over land ownership in Bonjol Melayu *ulayat* areas is due to competing claims of the local community and the state, as one party feels that the other party is negatively impacting their interests (Pruitt and Rubin 2009, Robbins 1993). The state claims 33,550 ha of productive forest as industrial forest plantation (HTI), and the forest management license granted to PT Inhutani and Dhara Silva in 2002. In 2013 the forest was established as PFMU Dharmasraya based on ministerial decree of the Forest Ministry, SK.695/Menhut-II/2013 21 October 2013 (Dharmasraya Forestry Service 2014). PFMU was formed as an organisation to

manage the forest on site and ensure sustainability (MoF 2011). However, according to customary law, PFMU Dharmasraya is *ulayat* land owned by the Melayu clan of Dharmasraya for hundreds of years. These claims have triggered conflict over forest rights between the local community and the state.

The local inhabitants give more weight to customary law than state law

Although, according to state law the PFMU forest is legally owned by the government, the local community do not recognise the legitimacy of this claim (Larson 2012). Recognition of customary law in PFMU Dharmasraya is so strong that the local community is not concerned about the repercussions of using the forest in ways that are considered illegal by the state law. State forest law does not restrict people from clearing forests for rubber and oil palm plantations, as customary forests in Nagari Bonjol is communal land that has been handed down by ancestors for generations. Although, legally the forest is owned by the state, their customary rights have greater legitimacy than state claims, reason being that the indigenous people were there earlier than the state (Larson 2012). Some indigenous people, isolated in Indonesia and elsewhere, have long enjoyed their customary right of self-management without interference from the state (Colfer and Pfund 2011). Case studies in the Arau valley showed that the community only recognises the existence of communal land in forests (Nursidah 2012). Recognition of customary law, which is very strong in the community of Bonjol, causes them to be fearless in clearing forest land, which is prohibited by state law. Customarily forest is part of the lands entitled to the community, and customary law does not prohibit the clearing of forests land for rubber and oil palm plantations. Their boldness is based on the rights given by customary law to use *ulayat* land for the benefit of their community. The existence of customary law, so attached and obeyed by the people, is presented in Table 1.

Table 1 illustrates the existence of customary law that is strong enough to overrule the claims of state law. The community does not acknowledge state law in the regulation of their lives. They are more afraid of transgressing customary laws than state regulations.

Table 1 Local community recognition of the customary law

Questions	Answers
What is the law that is used by local community?	Customary law
Who are the forest owners?	Local community
What is the law that is followed and adhered to by the local community	Customary law
Is there any fear in opening the forest?	No
Is opening the forest unlawful?	No
Is there punishment from the government for opening the forest?	No

Seizing of the forest by local communities

The local community has been taking over the PFMU Dharmasraya forests since 2000, since the expiry of the PT Ragusa commercial concession of the 66,000 ha of Bonjol Melayu *ulayat* forest. A total of 32,440 ha of this forest was consequently given to oil palm plantation companies (AWB, SMP and Incasi Raya). The remaining 33,550 ha was assigned to PT Dhara Silva and Inhutani, to be managed commercially. In 2013 the forest managed by DS and Inhutani was assigned to PFMU Dharmasraya. Interviews with *ninik mamak*, *datuak* and leaders of Melayu elaborated that when the Ragusa concession expired in 2002, the local community took over the forest. Trees were felled and crops were planted. Jabon (*Anthocephalus cadamba*) belonging to PT Dhara Silva and meranti (*Shorea leprosula*) belonging to PT Inhutani were cut down for rubber and oil palm plantation. In terms of ancestral rights, the forest belonged to their community. If a company or state wanted to use the land, they would have to pay the community. The community did not Seize the land from AWB, SMP or Incasi Raya because these companies had already gained permission to use the land and paid compensation to the community for the release of *ulayat*. The forest controlled by DS and Inhutani, however, is still claimed as *ulayat* forest as neither company had permission to use the forest. Until the forest became PFMU in 2013, encroachment into the forest continued to occur. The PFMU was powerless against local community seizure of the forest. The absence of state enforcement in the struggle for PFMU forest strengthened the local community's perception that their activities were not unlawful, on account that the land being *ulayat*, that had been passed down from one generation to the next.

The forest after seizure by the local community

Forest burning and forest clearing

The local community began burning the forest to prepare it for planting as quickly and easily as possible (Figure 1). Burning is regarded as a more effective and cheaper way to clear forest. One consequence of burning was the frequent occurrence of hot spots in PFMU. National Oceanic and Atmospheric Administration (NOAA) satellite recordings, indicator of forest and field fires (LAPAN 2004), showed many hot spots in the area as a result of this forest clearing. Hot spots recorded in Dharmasraya, West Sumatera in shown in Table 2.

In 2014, of the 290 hot spots recorded by the NOAA satellite in West Sumatera, 92 were in Dharmasraya, highest in West Sumatera Province. The standard deviation was 25.80, indicating distribution inequities of hotspots in West Sumatra. One major reason for these large numbers of hot spots was the use of fire to clear PFMU forest for planting.

Deforestation and forest change to oil palm and rubber plantations

The forest in PFMU Dharmasraya is experiencing a rapid transformation into rubber and oil palm plantation. Satellite image analysis in 2015 showed only 18.89% forest remains of the original 33.550 ha, from 86.35% in 2000. The transformation of land use over the last fifteen years is shown in Table 3.

The household survey indicated that most new plantation land was established with rubber trees. However, there has been a recent shift to oil palm due to the low price of rubber. An illustration of



Figure 1 Forest clearance by forest fire

Table 2 Total hotspots in West Sumatera Province in 2015

Regency/City	Number of hotspot
Pesisir Selatan	30
Pasaman Barat	48
Agam	13
Dharmasraya	92
Sijunjung	32
Pasaman	20
Sawahlunto	3
Solok Selatan	16
Tanah Datar	3
Lima Puluh Kota	11
Solok	7
Mentawai Island	15
Total	290
Min	3
Max	92
Mean	24,17
Median	15,50
Standard deviation	25,8

Source: National Oceanic and Atmospheric Administration (NOAA) 18 Satellite, 2015

the households in Bonjol, planting rubber and oil palm in PFMU is shown in Table 4.

As shown in Table 4, rubber was the crop of choice from 2000 to 2013 as the price of latex was very promising. However, since 2014, the price dropped from Rp 15,000 kg⁻¹ to Rp 5,000 kg⁻⁸, and many farmers chose to plant oil palm instead. Currently oil palm dominates the newly cleared areas and farmers have been replacing rubber trees with oil palm.

Local community perception: preserving forest or plantations?

The growing rate of forest clearance by local communities was caused by the perception that the forest did not contribute to their welfare. Sattar (1985) states that any society's effort to sustain natural resources and environment is closely related to the society's perception.

Table 3 Forest and plantation areas in PFMU Dharmasraya from 2000 to 2015

Land Cover	Area of 33,550 ha (%)			
	2000	2005	2011	2015
Secondary forest	86.35	71.81	40.01	18.89
Plantation	10.24	23.61	52.91	71.23
Open land	3.41	4.58	7.08	9.88
Total	100	100	100	100

Table 4 Commodities of local community plantation in PFMU Dharmasraya

Commodities	Number	Percentage
Rubber	35	85.4
Oil palm	6	14.6
Total	41	100

Table 5 describes the local community's perception of the benefit of preserving the forest as a water source, for environmental reasons and non-timber forest product (NTFPs). A total of 90.24% of the respondents felt that preserving the forest was unimportant, 53.66% felt that there was no benefit at all while 46.34% believed there was a benefit in preserving the forest. However, the benefit these respondents suggested was the potential of converting the forest into rubber and oil palm plantations. On the question about the environmental impact of forest destruction, 60.98% of the respondents were unaware of the impact while 39.02% were aware. It is evident that the respondents had limited perception of the benefits of the forest, hence the low motivation to preserve it. This shows a change in community perception of the forest. Traditionally, the forest which is now seen as a worthless natural resource, to be cut down and replaced by a plantation, was considered as a significant part of their lives (providing plants to be gathered and animals to be hunted). Due to lifestyle changes, these resources are no longer valued, as highly as the profit from plantations. Consequently, the forest is cleared and converted into oil palm and rubber plantations.

Forest ownership conflict in PFMU Dharmasraya differs from most forest management conflicts in Indonesia. In other areas, the local community is greatly disadvantaged due to weaker customary laws by forest management policies that give concessions to companies, resulting in a loss of rights over the forest, by the local community. However, in

Dharmasraya, customary law is regarded highly compared to government regulations, giving boldness to the local community to seize and fell forest, although claimed by the state. The study also investigated if legal pluralism of ownership was the only motive behind the conflict. It was clear that the boldness in seizing the forest stemmed from the *ulayat* status of the Minangkabau customary law. However, the field study revealed that further economic factors were also involved.

The usual motive for forest clearing is to provide fields for needed cash and food crops. In Dharmasraya, however, clearing occurred on a much wider scale as a way of obtaining ownership over the forest, so that the community will be able to obtain an income from companies or government entities that want to use the cleared land. This is clear from the interviews with both KI and oil palm and HTI companies. The community is deliberately felling forest close to the areas used by these companies in order to gain profit from the companies.

Figure 2 shows one part of PFMU forest that has been raised by the community. Forest in this area has been felled since 2014 but the community did not use it for plantation. The community is felling forest not only to earn from plantation companies but also as an investment for the future. If the community did not use the land for growing crops, they can sell it to people outside the area. Many groups of people from outside Dharmasraya have been purchasing forest land from the Melayu community. This becomes a trigger for members of the local community to clear the forest for their personal gains.

Table 5 Community perception of forest benefit

Questions	Yes (%)	No (%)	Total (%)
Is it important to maintaining the forest?	9.76	90.24	100
What are the benefits of maintaining the forest (water, environment, NTFPs)?	46.34	53.66	100
Does forest clearance impact the environment?	39.02	60.98	100

N: 41 samples

**Figure 2** Forest condition post land grabbing (November 2015)

CONCLUSIONS

The status of the PFMU Dharmasraya forest, as a state owned forest, does not deter the local community from seizing and felling the forest because customary law is regarded more important than state law. In forest ownership, the community is more aware of the sanctions of customary law than the punishments of breaking state law. According to customary law PFMU Dharmasraya forest is Melayu *ulayat* forest, to be used in any way that will benefit their own people, including felling and planting crops or converting to plantations. Forest seizures have resulted in large scale deforestation in the area with a reduction of secondary forest from 86.35 to 18.89% and an increase of oil palm and rubber plantations from 10.24 to 71.23% within 15 years, till the end of 2015. The reasons for forest clearing were not merely the economic drive of farming but also to claim ownership over the forest. Not all forest were converted to plantations or crops. Cleared land is left fallow, as a sign that it belongs to the local people who must be paid if a company wants to use it. Additionally,

felling forest is seen as an investment for the future. Felled forest is land with a specific owner, hence can not be taken by others. Felled forest land can be sold, even to those outside Bonjol and Dharmasraya Regency.

Deforestation in PFMU Dharmasraya is a great concern. It is estimated that the entire forest will be converted to plantations in just a few more years. The government has to act fast to preserve remaining forest. The forest management policy must take into account the traditions and welfare of the local community and the reasons for the forest conflict. There are alternative policy models that could be used, such as a community forest (Hutan Kemasyarakatan/HKM) people's forest park (Hutan Tanaman Rakyat/HTR) or local village forest (Hutan Nagari/Hutan Desa).

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