

DISPUTE AND ITS IMPACT ON LAND USE AND PLANT DIVERSITY WITHIN FOREST MANAGEMENT UNIT (FMU) OF 50 KOTA DISTRICT

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INTRODUCTION

Most rural lands were use and governed by local communities under law of customary Dispute and Its Impact to Plant Land Use Diversity Over time, large areas of these lands have been also claimed by governance under statutory law

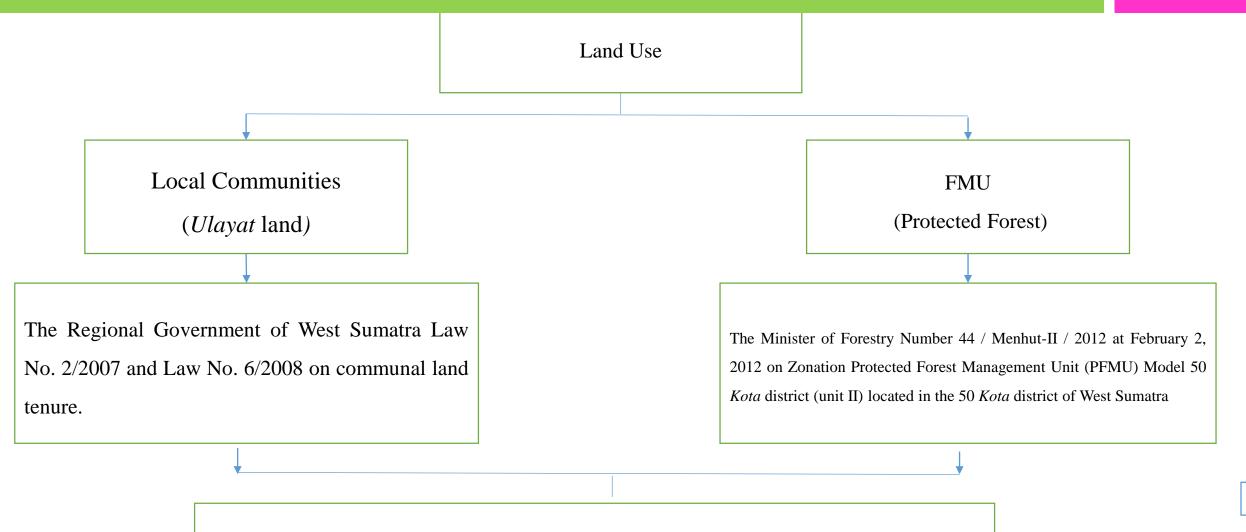
The 2002 World Summit on Sustainable Development reaffirmed the critical importance of biodiversity. The 2010 in the rate of biodiversity loss, regarding this as one of the most important milestones in progress towards a sustainable future (Tucker, 2005)

participatory forestry is being increasingly considered as a chief strategy of conservation, management and sustainable use of forest biodiversity

Forest Management Unit (FMU)

- Law Number 5 of 1990 on Conservation of Biological Resources and Ecosystem
- 2. Act 41 of 1999 on Forestry
- 3. Permenhut P.6/Menhut-II/2009 on the Establishment of Regional FMU

INTRODUCTION



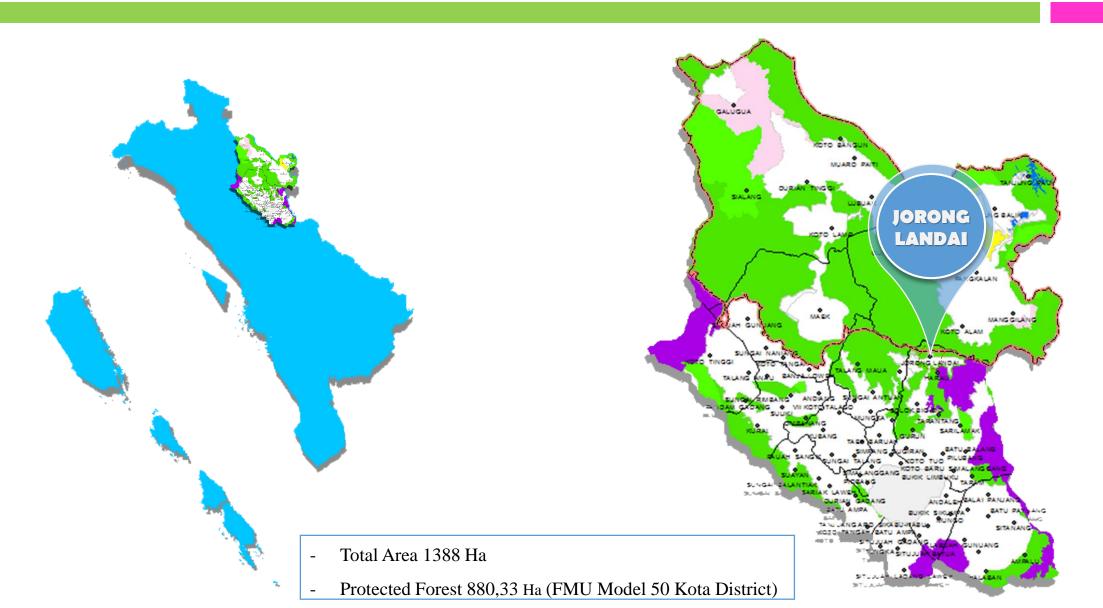
Identification land use and plant diversity by the local communities and FMU

INDONESIAN MAP



RESEARCH LOCATION MAP



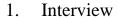




RESEARCH METHODS



Qualitative Descriptive



- 2. Observation
- 3. Documentation



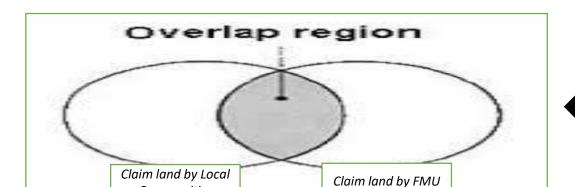
1. FMU Model 50 Kota district

2. Institute/organize/know FMU Model 50 Kota district

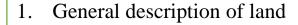
3. Ninik Mamak, KAN, local institution and local communities

4. Understanding more about duties and function of each





Communities



- 2. Description of use land
- 3. Claim of the land



Density = $\frac{\text{Number of individuals}}{\text{modern of individuals}}$

The total area of plots

Density Relatif (DR) = $\frac{\text{Density of species to} - i}{\text{Total of density}} \times 100\%$

Frequency = The number of sample plot discovery of a species

The total number of sample plots

Frequency Relatif (FR) = $\frac{\text{Frequency of species to} - i}{\text{Total of species frequency}} \times 100\%$

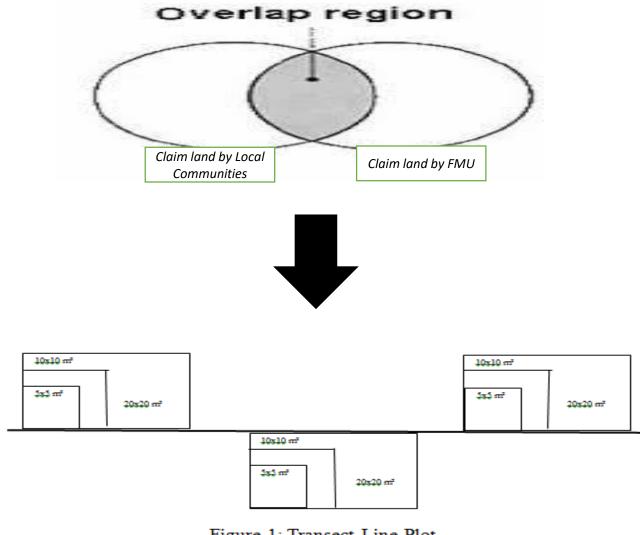
Diversity Index

 $H = -\Sigma \{(n.i/N) \log (n.i/N)\}$

H = Shannon diversity index

n.i = The importance of each species

N = Total of important value



Data Collection Methods

No	Objective	Informant	Position	Data	Method
1	Identification and describe the claims and the use of land by local communities and by the FMU Model 50 Kota district in the Jorong Landai 50 Kota district, West Sumaters.	Work or activity within the institution that became the object of research, (FMU Model 50 Kota district) Work or activity in a technical institute/coordination organize or know FMU Model 50 Kota district; Minik Mamak, KAN and local institution in Jorong Landai Understanding more about the duties and functions of each.		1. General description of land 2. Description of informant (type of work, level of education, asset land ownership, knowing about FMU Model 50 Kota district or not (for local societies), knowing about local institution in Jorong Landai (for FMU Model 50 Kota district). 3. Use of land (land management, land area, boundaries of land ownership, collaboration (if there are) between local communities and FMU Model 50 Kota ditrict)	Interview, observation and documentati on (GPS for make a map for each land use with QJis))
2	Describe management forest can impact to plant diversity by local communities and by the FMU Model 50 Kota district in the Jorong Landai 50 Kota district, West Sumatera.	Local communities Forester from FMU Model 50 Kota district	Key informant	Compare plant diversity in areas overlapping land, local community land and protected forest with: 1. Important Value (Density, density relative, frequency, frequency relative, important value index) 2. Diversity Index, Evenness Index and Dominance Index	Transect line plot

History of Jorong Landai

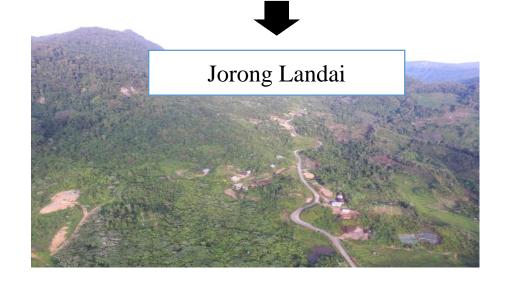
Dutch Era

Expedition

No	Clan	Name of Datuak	
1	Melayu	- Datuak Mangkuto	
		- Datuak Mangkudun	
2	Bodi	- Datuak Duko Basa	
		- Datuak Sabatang	
3	Sambilan	- Datuak Ndaro	
4	Pitopang	- Datuak Pucuak	
		- Datuak Mangun	

Decree of the Minister of Forestry No.44/Menhut-II/2012, → FMU Model 50 *Kota* → 880,33 Ha.



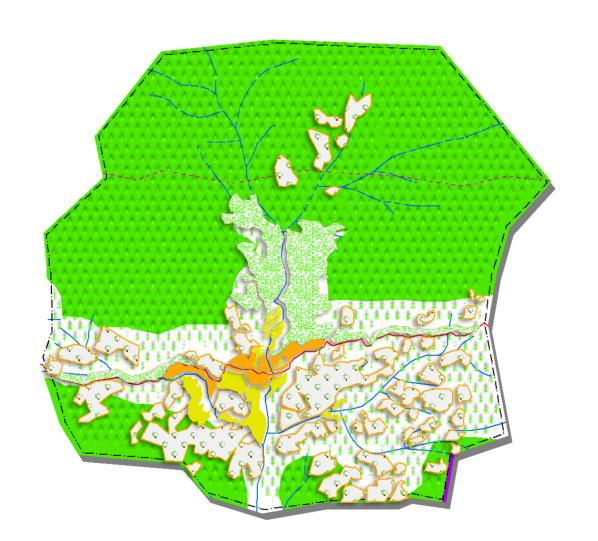


Jorong Landai





JORONG LANDAI MAP



Land use Map Jorong Landai

Total Area: 1388 Ha

Protected Forest: 880,33 Ha

APL: 507,67 Ha



Primary Forest: 1051 Ha







Settlement: 13 Ha

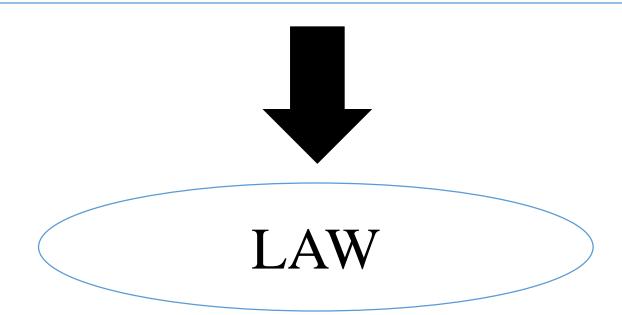


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Overlapping Claim Land Use

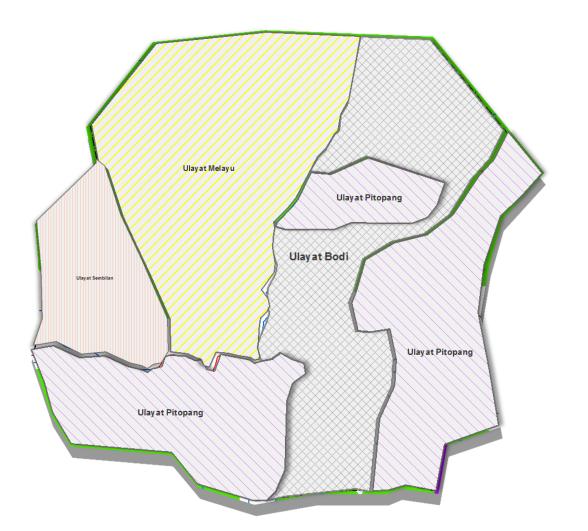
Land Use	Local Community (Ulayat Land)	FMU (Protected Forest)	Overlapping Claim	Amount
Settlement	13 Ha	0	0	13 Ha
Rice Fields	20,02 Ha	0	0,3 Ha	20,32 Ha
Gambir Field	112,29 Ha	0	52,41 Ha	164,7 Ha

Dispute Land Use Between Local Communities and FMU 50 Kota District





JORONG LANDAI MAP



ULAYAT LAND

Land Ulayat of Melayu: 427 Ha

Land Ulayat of Pitopang: 477 Ha

Land Ulayat of Sambilan: 135 Ha



Land Ulayat of Bodi: 344 Ha

Local Communities

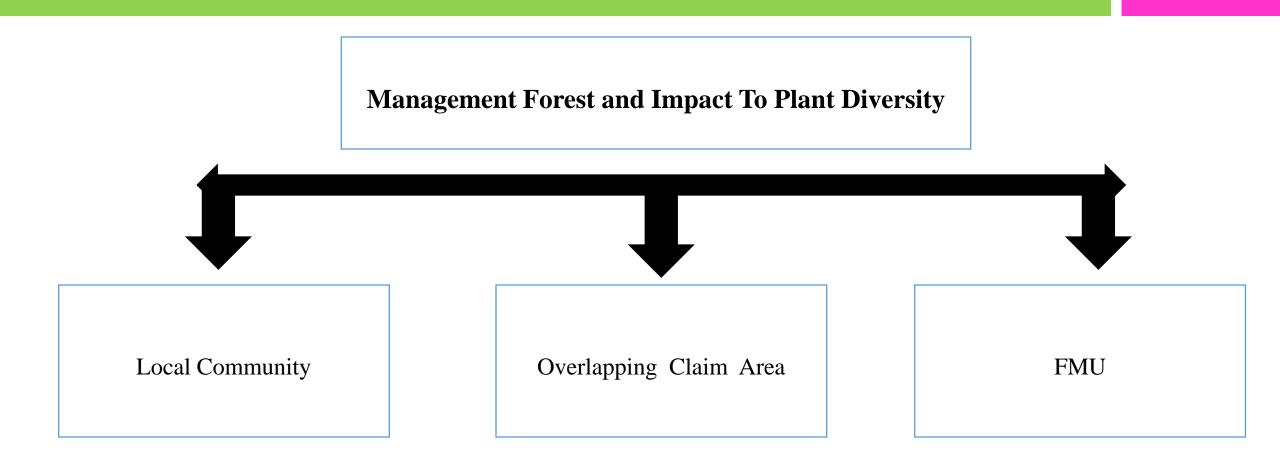


Article 18 B Paragraph (2) of the 1945 Constitution of the Republic of Indonesia (UUD 1945) which states that "The State recognizes and respects the unity of indigenous and tribal peoples as long as they are alive and in accordance with the development of society and the principle of the state unity of the republic of Indonesia which is regulated in the law"

Although it has been recognized by the state on the rights of people based on customary law on land and natural resources, the Government apparently regulates in such a way the highest access and authority in managing and utilizing natural resources by the government

The existence of a correlation between Article 33 paragraph 3 of the 1945 Constitution with the Law of the Republic of Indonesia 5 of 1960 Basic Regulation of Agrarian Principles to regulate natural resources in Indonesia

Government



Plant Diversity



Impact



Minister of Forestry Decree No. 44/Menhut-II/2012 dated February 2, 2012 on Determination of Forest Management Unit (FMU) Model 50 Kota district Declaration 1972



Law No. 32 of 2009



Regulation No. 6 of 2007 Forest Management Unit (FMU).



Law No. 5 of 1994 about Endorsement United Nations Convention On Biological Diversity (United Nations Convention) Nation About **Biodiversity**

Principle 21 of the Stockholm



Principle 2 of the Rio Declaration, adopted by the United Nations Conference on Environment and Development in Rio de Janeiro in June 1992

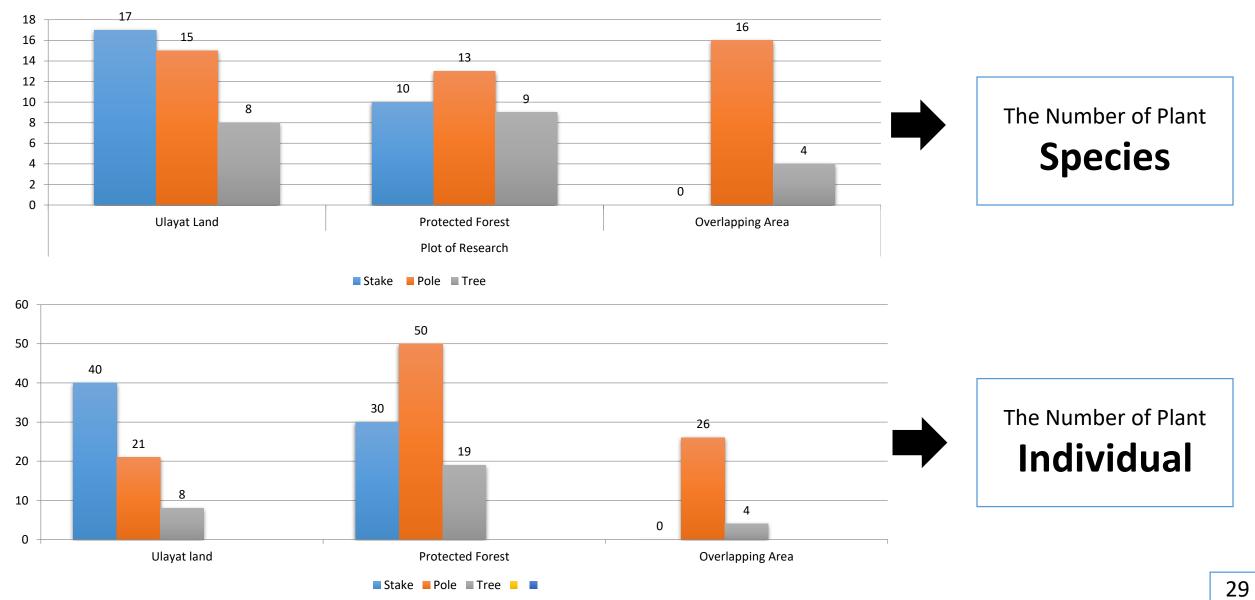
Clause 33 paragraph 3 of the 1945

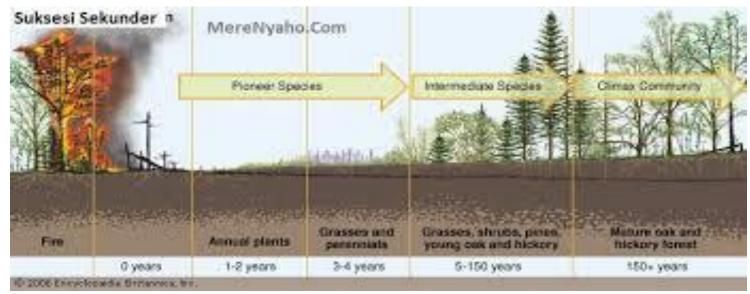


Law of the Republic of Indonesia No. 5 of 1960 on the Basic Regulations of Agrarian Principles



Plant Diversity







Index of Diversity

The Index value of species diversity (H')

Growth Rate	Plot Research		
	Ulayat Land	Protected Areas	Overlapping Area
Stake	2,526	2,042	0000
Pole	2,597	2,088	2,637
Tree	2,072	1,949	1,384

Noss (1990) defines species diversity as a composition that refers to the identity and variety of elements in a population, includes species lists and measures of species diversity and genetic diversity

Plant Diversity

Growth Rate	Plot Research	S	I	H'
Stake	Ulayat Land	17	40	2,526
	Protected Areas	10	30	2,042
	Overlapping Areas	-	-	-
Pole	Ulayat Land	15	21	2,597
	Protected Areas	13	50	2,088
	Overlapping Areas	16	26	2,637
Tree	Ulayat Land	8	8	2,072
	Protected Areas	9	19	1,949
	Overlapping Areas	4	4	1,384



Sudarisman, 2002 mentioned that the higher the index value of diversity, the more types are found. There are three criteria for the index value of diversity



Plant Diversity in the Jorong Landai:

Medium-scale



No	Criteria	Description	
1	Low	The value of H' (Diversity) is less than 1	
2	Medium	The value of H' (Diversity) between 1 and 2	
3	High	The value of H' (Diversity) more than 2	

CONCLUSION

Local communities use the land as settlements, rice fields, Gambier fields and get a direct benefit from the forest. The FMU of 50 Kota district, use the land as a protected forest and perform its functions in accordance with regulations and directives from the government. The overlapping of claims land use makes communication between local communities and the government inadequate. Where local people feel threatened by the use of land in their own ulayat lands. The laws governing their customary land rights, can not strengthen local communities in land management in ulayat lands, because of the highest regulations in the government that the highest power in Indonesia. The value of the index of diversity in the ulayat land is found at the stake level of 2,526, the pole level is 2.597 and for the tree level of 2.072. In overlapping claims areas, no plant level found for stake level plants, but pole level plants it has a species diversity value of 2.637 and for tree plant level of 2,164. In protected forests, index of diversity was obtained at stake plant level of 2,042, at pole plant level 2.597 and for tree-level plant 1,949. The value of the diversity of plants in Jorong Landai, have a medium scale, is expected to defend it and increase the quality and quantity of plant diversity in Jorong Landai of 50 Kota district

Thank you