

MANAGEMENT POLICY ANALYSIS OF SIBERUT BIOSPHERE RESERVE MENTAWAI ARCHEPELAGO DISTRICT WEST SUMATERA PROVINCE

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ABSTRACT

This research executed in Siberut island which has been specified Unesco as Biosphere Reserve. The purpose of research was to identify the policy which has been specified in Siberut, knows implementation of management, knows perception and participation of public and knows interaction of the parties involving in management Biosphere Reserve. Method applied is Inventory and contents analysis of policy, Indepth Interview with cross check, Open interview with descriptive qualitative and Inventory and Stakeholder analysis. Republic of Indonesia Government doesn't support expansion of Siberut Biosphere Reserve for all island. There is understanding difference and exploiting of Biosphere Reserve according to the Government with MAB-UNESCO so do with perception there are difference between publics Siberut with the Government. Local public assumes that forest Siberut is custom forest which it's the domination stays at custom public according to custom Arat Sabulungan, where it's the exploiting and management is done based on custom, but the Government considers to be state forest. Implementation of Siberut Biosphere Reserve Pledge based on Indicator Implementation released by Unesco, 1996 till now still uncommitting for overall of area Biosphere Reserve, except to of Core area (Siberut National Park). Implementation at core area based on Indicator Implementation mostly has been executed, except for Indikator 5,6,8,9 and 16. Role and influence MAB and TNS in Siberut still be low for the reason need to be improved.

Keyword: Cagar Biosfer Siberut, Siberut Biosphere Reserve.

INTRODUCTION

Siberut Island is the largest island with an area of 403,500 hectares in the Mentawai archipelago. This island has been separated from the mainland of Sumatra since millions of years ago, so there are species of plants and animals that are endemic to Mentawai, namely Bilou (*Hylobates klossii*), Bokkoi (*Macaca pagensis*), Joja (*Presbytis potenziani*) and Maknaobu (*Simias concolor*). Furthermore, primate species have been included in the endangered primates in Indonesia (Persoon and Schefold., 2017).

The island of Siberut is a Biosphere Reserve, with the core zone being the Siberut National Park which was appointed by the Minister of Forestry in 1993, by Decree no. 407/Kpts-II/1993 covering an area of 190,500 hectares, located in the Mentawai Islands Regency, West Sumatra Province (Mildawati *et al.*, 2020). Siberut National Park is a combination of nature reserve area (132,900 ha), protected forest (3,500 ha), limited production forest (36,600 ha), and permanent production forest (36,600 ha).

In fact, since the declaration of the Siberut Biosphere Reserve in 1981, the establishment of the Siberut National Park and all existing Deforestation Rights in Siberut were no longer extended since 1993. But in the following years, many policies did not support the existence of the Siberut Biosphere Reserve. Based on the existing problems, the objectives of this research are:

1. Identify the policies that have been established in Siberut and the relationship of these policies to the management of the Biosphere Reserve and related laws and regulations.
2. Identify the implementation of policies that have been carried out in the Siberut Biosphere Reserve based on implementation indicators from Unesco, 1996.
3. It understands the perception and participation of the community in the management of the Biosphere Reserve.
4. Identify the interaction of the parties involved in the direction of the Biosphere Reserve.

METHODOLOGY

The research was conducted a few years ago on Siberut Island, Mentawai Islands Regency. The research methodology used is shown in Table 1 below.

Table 1. Recapitulation of Research Methodology Used Including Sampling and Data Analysis.

Purpose	Types of data	variables	Collection method	Source of data	Analytical method
Knowing the policies that have been set in Siberut and the relationship of these policies to the relevant laws and regulations.	secondary	Policy points	Policy inventory	Central, Provincial and District Government	Policy Content Analysis (Content Analysis)
Knowing the implementation of Siberut Biosphere Reserve management based on Unesco implementation indicators, 1996.	primary	Implementation Indicators at the reserve level (Unesco, 1996)	Indepth Interview, data collection from TNS, and MAB	TNS, MAB- Unesco	Cross Check
Knowing the perception and participation as well as the success of the management of the Biosphere Reserve on the socio-economic Public	primary	Perception, participation and socio-economic	Open interview	Respondent	Qualitative Descriptive
Knowing the interactions of the parties involved in the management of the Biosphere Reserve	primary	Roles and interactions of each stakeholder	Stakeholder Inventory	Parties involved	Stakeholder Analysis

Secondary Data Collection includes policy documents and socio-economic data were obtained by collecting data and information from written sources. Informants in this study were indigenous people who have customary rights to forests located on the island of Siberut which were directly affected by the Siberut Biosphere Reserve. Informants were selected purposively (deliberately selected on the researcher's consideration, namely on the consideration of the level of policy influence).

RESULT AND DISCUSSION

A. Siberut Biosphere Reserve Management Policy

Since Unesco declared the Siberut Biosphere Reserve in 1981, the Government of the Republic of Indonesia has set policies on Siberut Island as follows:

- a. 1982: The Teitei Batti Nature Reserve was expanded to 132,900 ha (33% of the area of Siberut Island).
- b. 1992: Letter of the President of the Republic of Indonesia to stop the operation of the RIGHT TO LOSE FOREST in Siberut in conjunction with the start of the Asian Development Bank (ADB)-Integrated Protected Area System (IPAS) project. The objective of the project is to improve the management of the National Park. Meanwhile, the operation of CLEARING RIGHTS in the field was effective until the end of 1993.
- c. 1993: The establishment of the Siberut National Park with the Decree of the Minister of Forestry No. 407/Kpts-II/1993 dated August 10, 1993, covering an area of 190,500 hectares, which consists of nature reserves (132,900 ha), protected forests (3,500 ha), limited production forests (17,500 ha) and permanent production forests (36,600 ha), which It is located on Siberut Island, District Level II Padang Pariaman, West Sumatra Province.
- d. 1994: The Indonesian Institute of Sciences (LIPI) analyzes the ecology of Siberut Island and concludes that more than 80% of its area contains high biodiversity and development efforts must be following local conditions.
- e. 1999:
 1. The Directorate General of PHKA and TN Siberut reported to the MAB-LIPI National Committee that the Biosphere Reserve was expanded to the entire island of Siberut and its zoning was following what was designed by the IPAS project.
 2. Decree of the Minister of Forestry No. 422/Kpts-II/1999 dated June 15, 1999, concerning Forest and Water Areas of West Sumatra Province, which explains production forest, limited production forest, convertible production forest, nature reserve forest and tourism and forest protection.
 3. The issuance of Law No. 9/1999 concerning the establishment of the Mentawai Islands Regency separated itself from the Padang Pariaman Regency.
 4. Several companies have started submitting 11 proposals for concessions of 274,500 ha of FOREST CLEARANCE RIGHTS and oil palm plantations or about 68.1% of the area of Siberut Island. Andalas University offers a proposal for "Land Grant College."

- f. 2001: Andalas Madani Cooperative obtains a concession of FOREST CLEARING RIGHTS with Decree No. 105/Kpts-II/2001 dated March 15, 2001, with an area of 49,650 ha (11.3% of the area of Siberut Island). GPA of PT. Maharani Purucitra Lestari will be expanded to 17,500 ha (4.3% of the area of Siberut Island), but PT. Maharani's IPK cannot carry out its activities. PT. Salaki Suma Sejahtera Obtained an AMDAL approval permit covering 49,440 ha (12.3% of Siberut Island area).
- g. 2003: Issuance of IPK KSU Kostam permit covering an area of 1,000 ha in Taileleu Village, South Siberut, IPK PT. Alam Indah Lestari in Sirilogui, KUD Sikabaluan in Gurutna, Malancan Village.
- h. 2004: 1. The issuance of a permit for Mitra Sakato Cooperative in Malancan, North Siberut, KSU Puri Manujat in Tiniti, North Siberut, and KSU Bangun Jaya Siberut in Pasakiat Taileleu Village, Southwest Siberut.
2. The issuance of PT. Salaki Suma Sejahtera's concession on deforestation right with SK No. 413/Menhut-II/2004 dated October 19, 2004, with 48,420 ha, but it was rejected by NGOs the handover was postponed. The issuance of the new decree was carried out in 2007 after the Integrated Team carried out a study for the Study of Production Forest Management on Siberut Island, which was formed by the Minister of Forestry with SK No. 422/Menhut-II/2006.
- i. 2005: The issuance of Presidential Instruction No. 04/2005 dated March 18, 2005, concerning the Eradication of Illegal Logging in Forest Areas and its Circulation throughout the Republic of Indonesia, forced the Regent of the Mentawai Islands to revoke all IPKs in Mentawai with the Regent's Decree No. 41 of 2005 dated April 9, 2005
- j. 2008: In 2008, KAM handed back the Deforestation rights to the minister of forestry and in 2009, a decree was issued to revoke KAM's right to deforest with SK No. 130/Menhut-II/2009 dated March 27, 2009
- k. In 2009, a plantation location permit was issued by the Regent and approval for UKL and UPL IUPHHK-RE by the Governor, namely: (1). The Governor was granting of Location Permit for Oil Palm Plantation and CPO Industry PT. Siberut Golden Plantation by Decree of the Regent No.188.45-I of 2009 covering an area of \pm 14,500 ha. (2). Granting of Location Permit for Palm Oil Plantation and CPO Industry to PT. Mentawai Golden Plantation Pratama with Regent's Decree No.188.45-3 of 2009. (3). Approval of the UKL and UPL IUPHHK-RE PT. Golden Green documents by the Governor of West Sumatra Province with SK No.660-514-2009 dated September 31, 2009, covering 79,795 hectares located in the production forest area of the island of Siberut.
- l. 2010: 1. Change of Location Permit for Oil Palm Plantation PT. Siberut Golden Plantation with Regent Decree No.188.45-60 of 2010 covering an area of \pm 20,000 ha in Conversion Production Forest (HPK) covering an area of \pm 18,167 ha and Other Use Areas (APL) covering an area of \pm 1,673 ha located in the Districts of West Siberut, North Siberut and Central Siberut.

2. Change of Location Permit for Palm Oil Plantation PT. Mentawai Golden Plantation Pratama with Regent's Decree No.188.45-61 dated March 22, 2010, covering an area of ± 19,500 ha located in the Districts of West Siberut, North Siberut and Central Siberut. The two plantations have received a recommendation from the Head of the Forestry Service of West Sumatra Province No. 522.1/1978/INTAG/2008 dated July 09, 2008.

The report from the Directorate General of PHKA and Siberut National Park to the MAB-LIPI National Committee in 1999 that the Biosphere Reserve was expanded to the entire island of Siberut and its zoning was following what was designed by the IPAS project, not in line with the Decree of the Governor of the First Level Region of West Sumatra Number 522.13-330 -1996 concerning the Ratification of the results of the integration between the TGHK and the RTRWP Dati I West Sumatra based on Law no. 24/1992 on Spatial Planning, Regional Regulation of the Province of West Sumatra No. 7/1994 on the Basic Pattern of Development of the Level I Region of West Sumatra and Regional Regulation of the Province of West Sumatra No. 13/1994 on the RTRWP of Dati I of West Sumatra which was later strengthened by Decree of the Minister of Forestry and Plantations Number 422/Kpts-II/1999 concerning Designation of Forest Areas in the Province of West Sumatra with an area of 2,600,286 ha.

Land allocation based on policies that have been issued in Siberut up to 2010 is presented in Table 2.

Table 2. Percentage of Land Use Allocation on Siberut Island Until 2010

No.	Land Use	Wide	
		Ha	%
1.	Siberut National Park	190.500	47,63
2.	PT. Salaki Summa Prosperous	48.420	12,11
3.	PT. Global Green	79.795	19,95
4.	Total GPA	5.050	1,26
5.	Number of Plantations	39.500	9,88
6.	Other Uses	36.735	9,18
Total		400.000	100

Table 2 shows that the most prominent land use on Siberut Island is TNS by utilizing space of 47.63% followed by IUPHHK-RE PT. Global Green (Ex area of IUPHHK KAM plus HP around it) is a consortium of NGOs for Ecosystem Restoration at 19, 95%, IUPHHK PT Salaki Suma Sejahtera 12.11%. Another use is the land for facilities and infrastructure for sub-district capitals, villages/hamlets, residential and agricultural settlements and only 9.18% of swamps. The utilization of space for TNS is almost 50% of the total island area plus hilly topography and almost all river springs in Siberut are in the TNS area. From a conservation perspective, this area is adequate to function as a life support system and a conservation area.

Meanwhile, the area allocated for IUPHHK PT.SSS and IUPHHK-RE PT. Global Green as much as 32.06% functions as a production forest area for economic purposes and needs rejuvenation of the forest. IUPHHK-RE is an ecosystem restoration forest concession, which aims to restore the balance of ecosystems and the condition of natural forests in production forests. Restoration is restoration through an active reintroduction with the species that initially existed to achieve the structure and composition of the species as before. The goal is to restore the structure, function, diversity, and dynamics of a target ecosystem. The official GPA number is only 5,050 ha, but it is more than the actual number and is outside the specified location.

B. Legislation

Law No. 5 of 1990 concerning Conservation of Biological Natural Resources and Their Ecosystems Article 1 point 12, Biosphere Reserve is an area consisting of native ecosystems, unique ecosystems, and or ecosystems that have been degraded whose entire natural elements are protected and preserved for research and education purposes. Meanwhile, biosphere reserves are conservation areas for either terrestrial or coastal ecosystems recognized by UNESCO's MAB program to promote a balance between human and natural activities. Including humans with patterns of behavior, customs and culture, it is an integrated ecosystem that needs to be preserved for its authenticity and existence for the benefit of research and science. Based on this understanding, there are quite fundamental differences in perception with the definition of Biosphere Reserve according to Law No. 5 of 1990. The position of humans in the Unesco version of the Biosphere Reserve is only part of an ecosystem whose development depends on nature.

Meanwhile, according to Law No. 5 of 1990, the position of humans as Ecosystem Trustees, with the understanding that people inside the Biosphere Reserve have the right to live better according to their dignity. Elucidation of Article 18 Paragraph (1): The existence of a Biosphere Reserve is intended as a place for research, science, and education, as well as observing and evaluating changes that occur in the area concerned. With the determination of a nature reserve area and certain other areas as Biosphere Reserves, the area concerned becomes part of the international conservation network. However, the authority to determine research, scientific and educational activities and observe and evaluate changes in the Biosphere Reserve rests entirely with the Government. Law No.26/2007, in conjunction with PP No.26/2008 Article 103 paragraph (1), limited use in Biosphere Reserves, but the Government still issues permit for deforestation rights and IPKs.

C. Policy Implementation

Since 1999, after the Directorate General of PHKA and TN Siberut reported to the MAB-LIPI National Committee that the Biosphere Reserve was expanded to cover the entire island of Siberut and its zoning was in accordance with what was designed by the IPAS project. The total area is 405,070 ha which includes core area (46,533 ha), buffer zone (314,145 ha including traditional use zone 99,555 ha and intensive use zone 20 ha), and transition area (44,392 ha: park village zone). Related parties in Siberut Island are the Regency and

Provincial Governments and parties in Siberut such as businessmen and local communities who object to expanding the National Park into a Biosphere Reserve that covers the entire island.

As a result of this unilateral policy, local people cannot accept the policy because it interferes with community economic activities and changes in land status or land function without their consent; there are even some community groups who ask when we gave this land to the Minister of Forestry so that the implementation of the Conservation Policy The biosphere of the entire island of Siberut cannot be implemented, primarily since the District and Provincial Governments have determined forest areas in the Agreement on Forest Use and District Spatial Plans for 2001 to 2010 as well as the Provincial Spatial Planning which stipulates forest areas outside the Siberut National Park area as a Production Forest (HP), Convertible Production Forest (HPK) and Other Use Areas (APL) as confirmed by Ministerial Decree Forestry Number 422/Kpts-II/1999 concerning Designation of Forest Areas in the Level I Province of West Sumatra covering an area of 2,600,286 ha.

D. Implementation of Siberut Biosphere Reserve Management

According to the Head of the Siberut National Park (2010), Implementing the Siberut Biosphere Reserve based on the Implementation Indicators has not yet been implemented for the entire Reserve area, except for the Core Zone (Siberut National Park). Implementation in core zones based on Implementation Indicators has been chiefly implemented, except for Indicator 5, i.e., Plans are prepared for equitable benefit sharing, Indicator 6, i.e., Mechanisms are developed to manage, coordinate and integrate various Biosphere Reserve programs and activities, Indicator 8, i.e., Pilot sites in regional areas were developed, Indicator 9, i.e., Coordinated Research and monitoring plans were implemented, and Indicator 16, i.e., Biosphere Reserves was utilized as field training activities.

The initial steps of implementation that will be developed in the Siberut Biosphere Reserve are:

1. Establish Siberut Island CB management pengelola
2. Identify all “stakeholders” or stakeholders
3. Building an understanding of the global vision, mission, and goals for the management of Biosphere Reserves
4. Prepare a comprehensive and integrated “management plan” to manage the Biosphere Reserve area for each zoning.
5. Formation of zoning
6. Prepare action plans and pilot projects for the development of buffer zones and transition areas according to local conditions
7. Socialization, education, and training
8. Establish cooperation and networking (various parties, including the private sector). and Trust Fund

E. Local Government Policy of Mentawai Islands Regency

PP Number 25 of 2000 is concerning Government Authority and Provincial Authority as Autonomous Region that the authority for forest management is carried out by the Central, Provincial and Regency Governments in Article 2 paragraph 3 number 4 that the implementation of a business permit for the utilization of production forest products. As for non-forestry areas, it becomes the full right of the Regency/City Government. Therefore, the use of forest areas in non-forestry areas such as Other Use Areas (APL) for plantation purposes and other permits is issued by the Regent/Mayor. Such as IPK permits (timber utilization permits) in other use areas whose land will be used for plantations, transmigration, and others have been issued by the Mentawai Islands Regency Government on Siberut Island, which is presented in Table 4 below.

Table 4. Granting of Timber Utilization Permits by the Mentawai Islands Regency Government on Siberut Island.

No.	Company Name	Legality of License	Expired	Area (ha)	Production (m3)
1.	PT.Maharani Puricitra Lestari	No file found	No realization	-	none
2.	KSU Kostam	500/49/PEREK/	May 23, 2004	1.000	47.459
3.	KUD Sikabalu	U-2003 dated May 23, 2003	August 8, 2004	1.000	87.751,06
4.	PT.Alam Indah Lestari	53 of 2003 8 August 2004	September 17, 2004	1.000	80.150
5.	KUD Mitra Sakato	154 Year 2003 September 17, 2003	July 15, 2005	800	78.152
6.	KSU Puri Manuajat	91 of 2004 July 15, 2004	August 23, 2005	700	43.144,50
7.	KSU Bangun Jaya Siberut	119 Year 2004 August 23, 2004	May 27, 2005	550	63.297,85
Jumlah				5.050	399.954,41

F. Local Government Perception

One of the conflicts that arise from conservation governance is the misunderstanding of the perception of conservation itself. The definition of conservation so far has shown inconsistency. There are differences in the interpretation of the definitions contained in various regulations and the lack of clarity of these definitions.

On the other hand, there are differences in perspective between the State (in this case: the Government) and the Community, especially those living around natural resources. The Government views that the unique, distinctive and intact nature must be protected so that the surrounding population is a threat. The State determines allocation, access and control based on modern science. While the community views that the forest is the result of social construction between the community and the surrounding ecosystem, local community knowledge is the basis for allocating, accessing and controlling these natural resources.

From the results of in-depth discussions and interviews with officials in charge of the forestry sector, both provincial and district, there is the same perspective on the Siberut forest area, namely the basic principle that must be adhered to is the formal juridical (legal basis) that applies. Until now, the prevailing policy in the Siberut forest area is the Decree of the Minister of Forestry No. 407/Kpts-II/1993 dated August 10, 1993, concerning Changes in the Function of Forest Areas in Siberut to become Siberut National Park covering an area of 190,500 hectares, and Decree of the Minister of Forestry No. 422/Kpts-II/1999 dated June 15, 1999, concerning Forest and Water Areas of Sumatra Province. West. There have been no changes to the two Ministerial Decrees of Forestry and no other policy has been set by the Government for the forest area of Siberut Island.

G. Community Perception and Participation

Open interviews were conducted with the community in North and West Siberut in Sigapokna Village, Malanacan Village and Simalegi to 13 tribes directly to the tribal leader and some of its members. The tribes on the island of Siberut have ulayat rights to the forest, where the tribe has absolute rights to the forest which they have traditionally owned by Arat sabulungan. Recognition of customary lands and rights of indigenous peoples is recognized by the State in laws and regulations, namely Law No. 41 of 1999 concerning Forestry which contains recognition of indigenous peoples and rights of indigenous peoples, Regulation of the Minister of State for Agrarian Affairs/Head of BPN No. 5 of 1999 article 1 stated that:

1. Customary rights are the authority which, according to customary law, belongs to certain customary law residents over a certain area which is the living environment of its citizens to take advantage of natural resources, including land, in that area for their survival and livelihood, arising from external relationships. and spiritually hereditary and unbroken between the inhabitants of the customary law and the territory concerned
2. Communal land is a parcel of land on which there are customary rights of a certain customary law community
3. Customary law residents are a group of people who are bound by customary law as joint citizens of a legal alliance because of the similarity of residence or on the basis of descent.

All the tribes interviewed stated that their ulayat land is included in the Siberut National Park, so that knowledge about TNS is known by the community because it has something to do with ulayat land in TNS. The community said that the land that entered the TNS could not be processed or cultivated for plantation or

planting purposes (cultivation). Therefore, people call it a protected forest as a shelter for the Mentawai monkeys. These monkeys are considered by the community as something needed in traditional ceremonies and are used to add nutrition, so they are hunted a lot. But almost all people in North-West Siberut do not know about the Biosphere Reserve even at the Government level. Most of the Communities outside the TNS area (buffer zone and transitional Biosphere Reserve) refuse to UK is made a conservation area for economic reasons and their livelihoods are very dependent on the forest.

The current management of National Parks cannot be separated from the people who live around the area because humans and nature are not separate entities (Borrini-Feyerabend *et al.*, 2004), so that the success of National Park management will more or less be influenced by the level of knowledge, perception and the attitude of the surrounding community towards the National Park.

Based on the results of research by Harada (2003) and Sugandhy (2006), in the area around Mount Halimun National Park in West Java, the results of Harada's study (Harada, 2003) showed that most people (81%) were aware of the existence of Mount Halimun National Park. On the other hand, Sugandhy (2006) found that the majority (90%) of the community around Way Kambas National Park in East Lampung did not know about the existence and physical, ecological, social and economic values of Way Kambas National Park.

Factors of knowledge and public perception of National Parks significantly affect people's attitudes towards TNS. Knowledge of the laws governing the management of National Parks, such as the prohibition of cultivating land in the National Park area for agriculture and area boundaries, as well as the perception that National Parks provide economic benefits indirectly dominantly influence community attitudes towards conservation and TNS. Thus, engineering on factors that can increase knowledge about provisions in the management of National Parks and the formation of perceptions of the benefits of National Parks can still be done so that public attitudes towards National Parks become more positive (Brankov *et al.*, 2019).

Perception is determined by personal factors and situational factors. David Krech and Richard S. Cruthfield (1997:235) in Rakhmat (Rakhmat, 2005) call it functional factors and structural factors. The explanation is as follows:

1. Functional Factors: Functional factors come from needs, past experiences and other things that are included in personal factors. Perception is not determined by the type or form of stimuli but the characteristics of the person who responds to these stimuli.
2. Structural Factors: Structural factors come from the nature of physical stimuli and the neural effects they cause on the individual's nervous system.

In addition to the need's factors above, Hossain and Ali (Hossain and Ali, 2014) also states that the way individuals see the world comes from their group and membership in society. That is, there are environmental influences on the way individuals see the world, which can be said to be social pressures.

Based on some of the theories above, it can be seen that individual needs are one of the important factors that can influence the individual's perception of an object. Maslow's theory of needs states that a

person will not be motivated to fulfill the needs above if the needs at the lower level have been met/satisfied (Mugniesyah, 2006).

H. The Role of the Parties in Siberut

In the management of the Siberut Biosphere Reserve, several stakeholders play a role and influence the sustainability of forest management in Siberut. When viewed from their role in the utilization of forest resources, they are divided into primary and secondary stakeholders (Benn, *et al.*, 2016; Matuleviciene and Stravinskiene, 2015). The main stakeholders have a very decisive role in the utilization of forest resources, namely the Central Government (Ministry of Forestry RI), Regional Government, Siberut National Park, MAB-LIPI, Entrepreneurs, Community, NGOs and Universities. Entrepreneurs are groups of entrepreneurs working in the forestry sector (IUPHHK, IPK and Plantation). The community is a local community with authority for customary forest rights and NGOs working in the environmental industry. Local communities have absolute jurisdiction over forests because the structure of land ownership in the Mentawai Islands can generally be categorized as follows:

1. Polak Teteu is ancestral land that is communally owned by one Uma (tribal group) or more, but still in one kinship line (one male lineage). This land is the result of the findings of the ancestors (Sinese teteu).
2. Sinaki Teteu is the land traditionally bought by the ancestors from one tribe to another. This land was purchased by barter (exchanging for goods) either with chickens, pigs, sago gardens, machetes (tegle), axes, cauldrons and so on.
3. Toga tools, namely land obtained by the ancestors from the dowry for their daughters.
4. Pasailiat Mone is the land or gardens obtained by exchanging land for other tribes.
5. Tulou is land obtained from customary fines
6. Lulu is the land obtained from replacing ancestors' lives who ancestors killed from other uma.
7. Private land is land purchased by one of the uma members, used as private property with a not-so-large area (between 1 to 2 ha).
8. Sipasijago, namely land of one uma used by another uma, for farming or building a house, but the land is still recognized as belonging to the uma concerned, meaning that immigrants are only given the right to use.

In general, the stakeholders who play a role in the Siberut Biosphere Reserve are presented in Table 5 below, covering their interests, functions and main problems.

Table 5. Siberut Biosphere Reserve Stakeholder Groups According to Interests, Functions, Roles and Main Problems.

Stakeholders	Sub-group	Main interest	Functions and Roles	The main problem
Public	Local Community	Trying to get rights as customary owners in a fair and profitable manner	Ulayat Owners and determine forest land use	People's income is still low and depends on natural resources, the level of education, health and welfare is still low
Government	Ministry of Forestry	Authority over forests in Siberut	Protection, security and supervision of forests and services to the community	not yet focused and integrated planning, implementation of inter-institutional development
	forestry Service	Implement central government policies in accordance with the law and exercise forest management authorities in the provinces	Provide technical considerations to the Minister of Forestry, approve RKT, carry out provincial forestry planning and monitoring activities	there is no focus and integrated planning, there is no implementation and development among stakeholders in Siberut
	province	Carry out authorized activities according to the given autonomy	Giving consideration to the Regent and Prov. about policy	Insufficient personnel, facilities and infrastructure as well as budget, area and difficulty in monitoring the work area
	forestry Service	Carrying out autonomy, regional and government development as well as increasing income and the economy	forestry, planning and supervision of forestry in Kabptn and community services.	PAD is still minimal, infrastructure is still very minimal, human resources are also minimal
	district	By law, it plays a role in forest conservation	Economic and regional development as well as the government in Siberut, granting business licenses according to the authority of autonomy and providing public services.	Lack of personnel and infrastructure, minimal operational costs, lack of community support

Businessman	IUPHHK	Strive for the timber business to run smoothly so that the investment invested can be returned safely and increase income	Provide compensation for wood in the form of fees, provide employment, provide education, health, Infrastructure, etc. Co-operative capital assistance constellations, Bintek and agricultural assistance, Buying the results of vegetable planting activities and Assistance for cocoa gardens.	The unclear regulations and legal certainty regarding the status of the forest area in Siberut, and the high interference from NGOs regarding the function of the area as a Biosphere Reserve
	Plantation	Trying to make the oil palm plantation business run smoothly so that the investment invested can be returned safely	Establishing oil palm plantations for plasma and nucleus and managing credit schemes for plasma	Still in the location permit stage
	Plantation	Strive for the oil palm plantation business to run smoothly so that the investment invested can be returned safely	Establishing oil palm plantations for plasma and nucleus and managing credit schemes for plasma	Still in the location permit stage
	Buyer	Buying wood from forest entrepreneurs	Buying logs from the forest in Siberut and other places in Mentawai	Loading wood onto ships in Siberut takes longer because the waves are big, so the costs are higher
Non-Profit Organization	NGO	Trying to keep the forest intact, no logging	Advocacy, Participate in planning, Activity monitoring	Not yet independent and tend to depend on donor agencies, there are different interests
Researcher	MAB-LIPI	Trying to make Siberut forest a conservation area	Siberut Biosphere Reserve Authority	Regulations and legislation still do not support and conflicting interests with other stakeholders in Siberut, there is no meeting point

				with the local government on the management of the Siberut CB
	College	Conduct scientific research and publications on ecological changes and Mentawai endemic animals	Science and technology development	There is no integrated research program and research umbrella institution, it is not clear yet the division of interests based on expertise
security	Police/Army	By law, the role is to maintain security	Protecting forests and preventing illegal logging	Difficulty in infrastructure and operational costs
	harbormaster	Securing the cruise	By law, the task is to regulate and control and maintain shipping safety	Wood loading is done at the company logpond, so a special officer is needed to go to the loading location

CONCLUSION

From this study, it can be concluded as follows: 1) Policies that have been established on the island of Siberut since Unesco declared the Siberut Biosphere Reserve in 1981, the Government of the Republic of Indonesia does not support the development of the Siberut Biosphere Reserve for the entire island. There is a policy inconsistency between the Government and Unesco, where there is a fundamental difference in the definition of a Biosphere Reserve. According to Unesco, in the Biosphere Reserve, forest exploitation is not allowed. In contrast, according to the Government, it is permitted, so that in Siberut, production forest is allocated and limited production. Then the position of humans in the Unesco version of the Biosphere Reserve is only part of the ecosystem whose development depends on nature, while according to the Government, the position of humans as ecosystem builders with the understanding that people who are in the Biosphere Reserve have the right to a better life. This policy difference resulted in the management of the Biosphere Reserve not being able to run correctly. 2) The implementation of the Siberut Biosphere Reserve based on the Implementation Indicators issued by Unesco, 1996, has not yet been implemented for the entire Reserve area, except for the Core Zone (Siberut National Park). Implementation in core zones based on Implementation Indicators (Unesco, 1996) has mainly been carried out, except for Indicator 5, which is fair profit sharing, Indicator 6 is Mechanism to manage, coordinate and integrate various programs and activities of Biosphere Reserves, Indicator 8 is Locations regional pilots are developed, Indicator 9 is the coordinated Research and Monitoring Plan, and Indicator 16 is utilization as field training activities. 3) There are differences in the perception of the people of Siberut and the Government. The local community considers that the Siberut forest is a customary forest whose control lies with the orthodox community according to the Arat Sabulungan custom, where the utilization and management are carried out based on custom, but the Government considers it a state forest. The level of community participation in conservation

management (TNS) is very high. This is indicated by almost all respondents knowing the boundaries of TNS, which are participatory. However, most refuse to do a boundary demarcation because they do not want to transfer their rights to their customary forest. 4) There are 6 (six) stakeholder groups that have a role and influence in forest management in Siberut. There are five main stakeholder groups, namely the Government (Ministry of Forestry RI, Regional Government, Siberut National Park), Entrepreneurs (IUPHHK, Plantations and Buyers), Community, Non-Profit Organizations (NGOs), Researchers (MAB-LIPI, Universities), and Stakeholder's secondary is the security forces (Polri, TNI-AL and Syahbandar). Stakeholders who have strong power, influence and interaction are the Government (except TNS), Community, NGOs and Entrepreneurs. Meanwhile, those who have strength and influence, and weak interactions are TNS and MAB.

From this study, some suggestion could be proposed such as: 1) There is a need for support and consistency from the Government of the Republic of Indonesia in implementing the policy of Siberut Island as a Biosphere Reserve which has been recognized worldwide, and it is necessary to immediately make regulations for implementing the Biosphere Reserve (Government Regulation) as mandated by Law No. 5 of 1990. 2) To carry out the implementation that has not been implemented, management is required through coordination arrangements, namely the establishment of a stakeholder forum and an MOU between the Siberut Biosphere Reserve and the Mentawai Islands Regency Government, and all stakeholders on Siberut Island, making rules of the game in the management and utilization of resources, and making comprehensive strategic collaborative activities with the synergy of stakeholders in accordance with their capacities and abilities based on the principles of mutual respect, mutual trust, mutual accountability, sharing of responsibilities and sharing of benefits fairly. 3) It is necessary to have a common perception about the Siberut forest between local communities and the Government through the Arat Sabulungan traditional approach adopted by the local Siberut community because one of the keys to the success of the management of the Biosphere Reserve is the local community who has authority over the customary forest. 4) To be able to carry out the management of the Siberut Biosphere Reserve, it is necessary to increase the interaction, strength and influence of the role of MAB and TNS as managers of the Biosphere Reserve with other stakeholders. 5) Since the management of the Siberut Biosphere Reserve cannot be managed based on the management principles of MAB-Unesco because it is not in accordance with the prevailing laws and regulations in Indonesia, the most relevant is the joint management with local communities as holders of customary rights by taking into account the conditions socioeconomic status that still needs to be developed. Then, with the existence of IUPHHK and cultivation activities in buffer and transition areas, it should be regulated separately by considering conservation management and restrictions on utilization that do not degrade natural resources and the environment.

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CONFLICT OF INTEREST

The authors have no conflict of interest.

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