# Land Tenure Conflict Settlements in Attempts to Community Empowerment to Perform Forest Management

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## **ABSTRACT**

This study aimed to describe patterns of land use by the community of Production-Forest Management Unit (PFMU) of Banjar, make an inventory of land conflicts, identify the causes of land conflicts and formulate strategies to resolve land conflicts in the attempts to empower the community in terms of forest management. This research was conducted in villages located in Banjar PFMU, South Kalimantan, Indonesia. The issues of tenure in this study were analyzed using descriptivequalitative methods through the Rapid Land Tenure Assessment (RaTA). Conflict resolution mechanisms were analyzed using the method of the Analytic Hierarchy Process. The patterns of forest land use done by the community were in the forms of gardens, yards, fields, and settlements. After the establishment of forest areas, land conflicts began to occur, in terms of conflicts between the community and the government and companies. Causes of land conflicts occurring in Banjar PFMU consisted of uncertainty in the regional boundaries, forest encroachment, illegal logging, environmental destruction, and land conversion. Alternatives to conflict resolution necessary to conduct are through the establishment of regional boundaries mutually recognized by those parties, law enforcement and institutional development involving the role of forestry extension workers, religious leaders, bureaucrats, and law enforcement officers.

Keywords: Land conflicts, empowerment, forest management

# INTRODUCTION

In the region of Banjar PFMU, land use both the one performed by the community and the one performed by companies obtaining the License for Utilization of Timber Forest Products Concession, 34 villages, and former mining site can be found. Almost every settlement has been equipped with public facilities such as schools, places of worship, customs hall, and health facilities. The existence of the population with all their activities in the region of Banjar PFMU definitely determines the sustainability of the region. Based on research by Fauzi (2012:78) in the region of Banjar PFMU, there are many other forms of land use performed by the local community such as fields, mixed gardens and settlements.

Buckles (2009:17) states that local communities de facto 'possess' land resources within the forest areas either the ones have already been burdened with a business license and the ones that belong to state forests. On the other hand, the government (central and local forestry agencies) insists that the land owned by the community belong to forest areas based on the Decree of the Minister of Forestry No.435/2009 on designation of forest areas.

Various potential sources of conflicts should immediately look for a model of resolution in order that they do not escalate into larger conflicts and lead to riots and disunity both among

members of the community, among villages, between villages and companies holding a business license or the government.

In order to involve active participation of the community regarding sustainable forest management, it is necessary to perform community empowerment efforts. However, before conducting such empowerment efforts, issues on land conflicts are necessary to resolve that can accommodate dynamic aspirations and participation of the community, customs and culture, as well as social values based on local and national legal norms.

This study aimed to describe the history and patterns of land use by the community of Banjar PFMU, make an inventory of land conflicts, identify the causes of land conflicts related to natural resources and formulate strategies to resolve land conflicts in the attempts to empower the community in terms of forest management.

## RESEARCH METHODS

This research used an analytical framework presented schematically in Figure 1. Based on the picture, it can be explained that the existing tenure conditions in a location is a social fact which involves many actors with their own interests, philosophical perspectives, desires, needs, and power. Tenure as a social fact is intertwined with the cultural system and social system that develop in the community which simultaneously affect the implementation of community empowerment related to forest management.

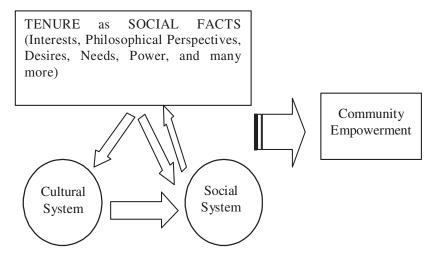


Figure 1. Research Analysis Framework

This research was conducted in Pakutik Village, Kupang Rejo Village, Belimbing Lama Village and Belimbing Baru Village situated in Banjar PFMU, South Kalimantan, Indonesia. Research data were collected by conducting interviews. The interviews were conducted with informants from the government, and the local community. Interviews were conducted indepth and repeatedly in order to understand the responses to the questions posed in flexible, open, not rigid, and informal manners.

The issues on tenure in this study were analyzed using descriptive-qualitative methods through Rapid Land Tenure Assessment (RaTA). RaTA is a set of systematic ways to concisely assess, analyze, understand, and explain certain conditions of land tenure systems (Galudra et al, 2006:14). Conflict resolution mechanisms were analyzed using the method of Analytic Hierarchy Process (AHP).

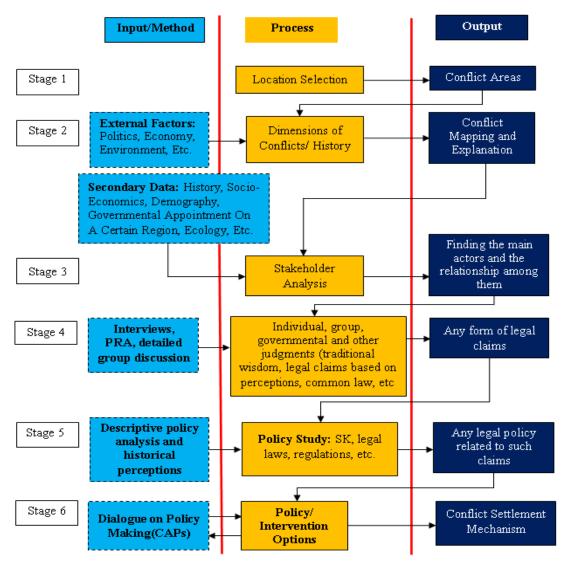


Figure 2. Stages of the Analysis using RaTA

## RESULTS AND DISCUSSION

The system of land tenure for indigenous people was decided based on an agreement and beliefs in customary rules without written evidence. Therefore, although the land was hereditarily owned by those people, none of them held the land deeds. They used tall shrubs *Hanjuang* (*Cordyline* sp) and the river as the boundaries for land tenure. The determination of these boundaries was an agreement between land owners whose land immediately adjacent in order that problems would not arise in the future.

As the time passes, new inhabitants began to come and thus some part of the land was sold to those new inhabitants. At this time, transfer and tenure of land by new inhabitants were made in written. The written evidence that they had obtained a formal notification of land-use from the heads of villages. They were not strong evidence according to the Regulation of Minister of Forestry No. 62/2013 given the document is not issued by the National Land Agency. Legal documents owned by PFMU were written under the name of the state in accordance with the Map of Forest Land Use Agreement (the Decree of Minister of Forestry No. 247/Kpts-II/1984), the Map of Forest Area Designation in accordance with the Regulation of

Minister of Forestry No. 453/1999 which was then revised with the Regulation of Minister of Forestry No. 435/2009.

#### Land Use Patterns in Forest Areas

#### **Orchard**

Orchards that the community plant consist of two types, namely mixed orchards and mixed rubber plantations that originally were in the form fields. Mixed orchards consist of a variety of fruit trees scattering randomly and irregularly. Rubber plantations are planted on a regulaar basis under the same age, is is done to facilitate extraction of rubber latex. Forest areas occupied by the community for orchards are 6,979 ha owned by by 1,008 heads of family. The distribution of the areas occupied for orchards in the research site is given in Table 1.

Table 1. Forest Areas that the Community Utilize as an Orchard

Village	Total Area (ha)	Household	Family Head Owning Orchards	Total Area of the Orchard (ha)
Pakutik	900	234	216	1,825
Kupang Rejo	600	344	286	934
Belimbing Lama	6,600	294	294	2,450
Belimbing Baru	5,700	270	212	1,770
Total	13,800	1,142	1,008	6,979

Source: Results of an Interview with the Head of Tribe

Based on Table 1, it can be seen that 88.26 % of household has an orchard with an average land tenure by 6.9 ha per household. Even, when compared to the village area and the area of the orchards, residents of Pakutik Village and Kupang Rejo Village own more extensive areas of orchards. It means that residents of both villages take the control of forest areas outside their respective village or at least they penetrate into the more remote forest areas.

#### Cultivation

Cultivation as dryland farming still often can be found in the research site, particularly in Belimbing Lama Village and Belimbing Baru Village, while for Pakutik Village and Kupang Rejo Village, it was not found. However, according to informants, there are quite a few residents of other villages including the residents of Pakutik Village and Kupang Rejo Village conducting agricultural activities within forest areas of Belimbing Lama Village and Belimbing Baru Village. According to the informants, forest areas used by the community for cultivation are estimated to reach  $\pm$  3.260 ha as shown in Table 2.

Table 2. Forest Areas that the Community Utilize for Cultivation

Village of Origin	Cultivator (Household)	Location/Total Area of the Field (ha)				Average
		Belimbing Lama	Belimbing Baru	Other Locations	Total	Ownership
Pakutik	211	317	54	28	399	1.89
Kupang Rejo	132	88	31	0	119	0.90
Belimbing Lama	219	1,180	154	108	1,442	6.58
Belimbing Baru	240	0	1,300	0	1,300	5.42
Total	802	1,585	1,539	136	3,260	4.06

Source: Village Profile (2013)

Based on Table 2, the cultivation land of those four villages reaches an area of 3,260 ha or 50.15% of the existing cultivation land in Sungai Pinang District covering an area of 6,500 ha. In this pattern, the type of crop planted is seasonal crops such as corn, peanuts, chillies, cassava and tomatoes. Based on this research, the use of forest areas for cultivation consists of dryland areas with a planting period that depends on the period of the season. This pattern is found mostly down the road between villages, where the land is mostly located on a valley.

Cultivation systems substantially, if they root from the culture and wisdom of the local community, will not become a problem that triggers deforestation since pure cultivation is conducted with much consideration and carefully in order not to damage the environment (Budiningsih, 2010:94). Considering the environmental aspect, cultivation systems assure higher biodiversity than monocultural rice farming systems. From the aspect of efficiency, planting systems with cultivation systems are considered advantageous because the B/C ratio can reach 200% (Simon, 2004:7).

However, due to continuous forest pressure, in addition to cultivating activities and other external activities, the system becomes a problem primarily if associated with breaking the shifting cycle of cultivation activities since the roaming area is limited by the areas that belong to the concession of Forest Concession Rights (HPH). As a consequence, it will inhibit the fallow period (usually for 20 years) of the land abandoned after the cultivation activities. Fallow period that does not continue will cause the land formerly used for cultivation unable to restore its conditions resulting in the land being critical which changes into shrubs and grasslands.

In addition, the expansion of cultivated land also a factor that causes cultivation identified as a problem related to activities of forest-resource management. The current area of cultivation land ranges from 0.9 to 6.58 ha. This area, if it is intended only for rice-planting activities, is considered too large. However, a shift in commodity orientation has occurred among the community, where paddy is not the only commodity planted on the cultivation land, another commodity that can be combined such as rubber is also planted. According to Suyanto (2009: 271), this shift in orientation depends on the commodities to be planted and thus the community need large areas of land. One way to meet this need is by making expansion into forest land, including protected forest areas. Based on this assumption, the existence of forest resources in forest areas is gradually threatened, especially with the presence of migrant cultivators.

## Settlements

Settlements refer to an area or territory where people establish social interactions. Settlements in the villages under study such as villages in Banjar Regency mostly follow the street line. Data on forest areas occupied as residential areas by the community can be seen in Table 3.

Table 3. Forest Areas that the Community Utilize for Settlements

Village	Population (Household)	Area of Settlements (ha)	Average Ownership (ha)
Pakutik	234	18.2	0.08
Kupang Rejo	344	15.32	0.04
Belimbing Lama	294	21.82	0.07
Belimbing Baru	270	27.32	0.10
Total	1,142	82.66	0.07

Source: Central Bureau of Statistict for Banjar Regency (2012)

# Livestock Grazing

Livestock grazing in forest areas of Banjar PFMU occurs almost on all forest areas, especially in the Forest Group of Riam Kiwa Sub-Watershed. Intensive grazing activities in the forest area will have a negative impact on the conditions of vegetation cover and affect the level of soil porosity and fertility. When rain falls, it may trigger erosion since the vegetation cover on the ground has been reduced (Suyanto, 2009:272). What is worst is that the grazing pastures have also been claimed as the property of the community. It is supported by the stakes and barbed iron fence that surround the grazing pastures. Chances of conflicts by making protected forest areas as a grazing pasture are totally potential considering the high number of cows that can be found in that area.

# **Conflicts After the Establishment of Forest Area**

In terms of the layout, forest areas in South Kalimantan are set by the issuance of appointment in accordance with Forest Allotment Consensus (TGHK) based on the Decree of the Minister of Forestry No. 247/Kpts-II/1984 with an area of  $\pm$  2,029 million ha. Furthermore, the Regulation of the Minister of Forestry No.453/1999 designates forest areas by  $\pm$ 1,839,494 ha which later changes into  $\pm$  1,779,982 ha in accordance with the Regulation of the Minister of Forestry No.435/2009. The Regulation of the Minister of Forestry designates forest areas of Banjar Regency to reach an area of  $\pm$  251,258.647 ha or 53.81 % of the area of Banjar Regency.

The significant rate of population growth increases land use, which in turn reduces forest areas, while the administrators have a duty to maintain forest both in terms of its sustainability and the extent of its territory which eventually affects the conflicts between those forest administrators and the community. One of the most frequently heard conflicts between the communities with other parties or with another member of the community itself, is the conflict on forest-resource management (Fuad and Maskanah, 2000).

In Banjar Regency, there are 51 recorder cases of forest conflicts reported by the National Unity and Community Protection Agency of Banjar Regency since 1997-2012. The frequency distribution of the conflicts per year in Banjar Regency can be seen in Figure 3.

Based on Figure 3, a tendency in increased frequency of conflicts that occurred in 2 phases, i.e. Years 1998-2002 and years 2008-2012, is obvious. Between years 2003-2008, the frequency of conflicts tended to decrease into less than 5 events of conflicts each year. From 2001 to 2002, the conflicts plummeted by approximately 45 % and were relatively stable until 2008, even in 2005-2007; there was no reported incidence of forest conflicts. However, the frequency of the conflicts increased again in 2009. This increasing frequency of conflicts even reached more than 100 % compared to that which occurred in 2008.

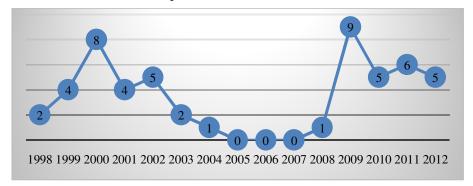


Figure 3. The Frequency of Conflicts that Occur in the Forestry Sector of Banjar Regency (1998-2012)

After observing Figure 3, it can be seen that the frequency pattern for conflicts in Banjar Regency encounters very noticeable increase during the Eras of Reform and Decentralization (1998-2003), which peaked in 2000. Based on the information obtained from the mass-media articles, in 2000 various compensation claims emerged from the community against forest concession companies. In addition, based on the assumption, the transition culmination and the emergence of 'reform euphoria' occurred in 2000, which encouraged some communities to take the opportunity over the vagueness of the existing rules and authority.

In 2003, the frequency of conflicts declined sharply compared to that in the previous year. It occurred since at that time the Ministry of Forestry intensively started to improve forestry programs involving community participation (social forestry) such as food-reserve forest, the development of a variety of forestry business, community forest, agro forestry, wanafarma, and beekeeping. Until 2008, conflicts of community and forestry were not so prominent. If any, it was only a demand that they be involved in forestry development.

The frequency of conflicts continued to increase exactly after the designation of forest areas in Banjar Regency that are planned to be managed by UPTD PFMU Banjar. There is a perception spreading amidst the community that the land that so far has been occupied and claimed by the community as their property, including the land that they cultivate through the social forestry programs will be taken over by Banjar PFMU.

# **Causes of Land Conflicts on Forest Area**

Based on interviews with informants, there are five main sources of forestry conflicts, namely forest encroachment, illegal logging, environmental destruction, and area boundaries, and conversion as shown in Figure 4.

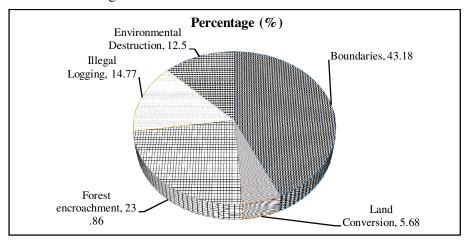


Figure 4. Factors of Triggering Conflicts (%)

The factor that causes the most common conflicts in various regions is unclear forest boundaries to the surrounding community (43.18 %). Based on data from questionnaires distributed to the community, it is showed that 91.26 % of them did not know about forest boundaries. The communities who live in forest areas are supposed to notice any regulations on forest boundaries given that they are groups of people who live in a typical environment (i.e. forest) which is different from any other neighborhoods that generally are not located in forested areas. On the other hand, the number of respondents who knew about the spatial policy (including forest areas) amounted to 8.74 %. They gained the information from the media, based on their own knowledge, from dissemination of leaflets or socialization by the competent authority which in this case was the Forestry Office of Banjar Regency and Banjar PFMU Institution, and a combination of those afore-mentioned sources. However, the

information obtained was not detailed and thus even though they know that their village is included in forest areas, they do not know for real where the limits are because in practice such limits are rarely found.

Unclear boundaries between the areas of forest concession companies and industrial plantation forest companies or forest areas without IUP with the areas of land belonging to the community living around the forest need to receive serious attention, especially from the government. Issues on boundaries and access are nothing new in the world of forestry. These have been expressed by many previous researchers (Anau, 2002; Orstom, 1999; Moeliono and Fisher, 2003; Suporahardjo and Wodicka, 2003).

Forest encroachment ranks the second position for causes of forestry conflicts (23.86 %). Forest encroachment in the areas of Banjar PFMU leads more on plantation of subsistence crops and food crops as well as cash crops and has come to the efforts to own the land and even sale and purchase of land has occurred 'under the table'. Forest encroachment occurs since Banjar PFMU is a wide area, but with unoptimal supervision. Currently, farming communities in Banjar PFMU was having a 'fever' to sell land for coal mining. The high price of land containing coal deposits attracts the community. Consequently, most of the land, both which belongs to their possession and which they obtain through forest encroachment, is sold to coal-mining businessmen, even the community dare to change paddy fields and rubber plantations into coal mining areas.

Land tenure in the forest areas of Banjar PFMU generally is not the fault of the community themselves because facts in the field show that up to this present the community generally assume that forest is God's blessing that can be used by anyone. Forest encroachment by the community is also resulted from soil conditions managed by IUPHHK within the area of Banjar PFMU that remain untapped because the land is still not fully active yet. The existence of the areas of PFMU Banjar that have not been managed and are left just like that encourages the community to cultivate it in a way and using technology that they master.

Land for shifting cultivation that becomes narrower and weak economic conditions cause the community to have a high dependence on land in the areas of PFMU Banjar. From the aspect of land productivity, paddy produced from shifting cultivation generally can only meet 50% of the food needs of the farming families each year (Simon, 2004:7). Another negative aspect is that the system of shifting cultivation makes residential locations cannot clump together resulting in higher cost of public services. As a result, education among farming community does not develop as quickly as the education of farming community which settles in one place

Other conflicts relate to the issues on illegal logging. Actually, illegal logging occurs wide spreading and systematically in many parts of Indonesia. At the national level, it is estimated that timber from illegal logging activities is capable of supplying approximately 50% to 70% of Indonesian timber needs (Ministry of Forestry, 2010:78). The biggest disturbance to forest security in South Kalimantan isillegal logging (Anonymous, 2005:56). In 2011, there were no less than 56 units of Downstream Wood Processing Industries which did not have a license/illegal sawmills in Banjar Regency. If all those illegal sawmill have a capacity of at least 2,000 m³ per year, it means that these wood processing industries require supply of round wood materials not less than 112,000 m³ per year (Anonymous, 2011:19). Assuming that the legal timber production of Banjar Regency that reaches only 40,000 m³ per year, and if the entire logging production (the legal logging) has officially been absorbed by IPKH, it can be concluded that these 'illegal sawmills' obtained supplies of raw materials from illegal logging which was 2 to 3 times higher than the production of the legal logging. Findings of research by Jovan (2010) suggest that illegal logging in the working area of one forest concession for

1 month through 'one entrance' could produce as many as 184 trucks carrying 1,120 m<sup>3</sup> illegal timber that consisted of meranti, mixed species and fancy wood. Based on those amounts, it is estimated that the state encountered a loss by Rp218,096,436 due to the absence of revenues from the collection of Provision of Forest Resources and Reforestation Fund.

## **Alternative Land Conflict Resolutions**

Based on the results of Focus Group Discussion and discussion with experts, there is alternative management strategies presented in Figure 5.

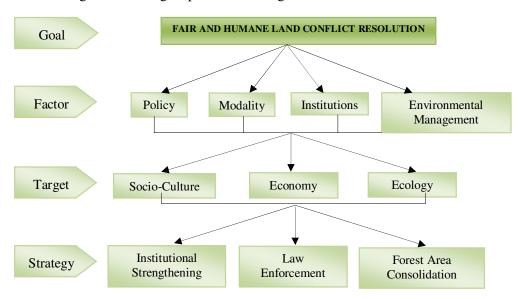


Figure 5. Hierarchical Structure for the Analysis of Land Conflict Settlement Strategies

According to Simon (2006:145), the key to the achievement of sustainable forest management requires three conditions to meet, namely: (a) consolidation of the forest areas that is acknowledged by all parties; (b) successful development of forest characterized by the availability of stock in optimum condition; and (c) the number of woodcutters does not exceed the amount of timber increment capability of the entire forest area. Unchanging forest boundaries are very important in order that forest development activities do not encounter disturbances since the period of forest production is in the long-term and the management cannot be set to have a rapid change in a short time or suddenly.

Law enforcement in the area of land conflict management in PFMU using the Banjar Model requires coordination with law enforcement officers. Activities intended to provide monitoring and prevention are implemented through repressive measures such as regular patrols, joint operations, functional operations and preventive measures through counseling. Successful law enforcement depends on the ability of law enforcement officers to overcome the barriers and constraints, namely: 1). barriers and constraints in the forms of different knowledge levels of the community that may lead to different perceptions of the law; 2). Low legal consciousness of the community; 3). unclear legal regulations related to the presence of the 34 villages situated in the forest because the enclave process remains running; 4). Low integrity of law enforcement officers; 5). financing problems.

Institutions put an emphasis on five aspects, namely: 1) related to social aspects, 2) related to abstract matters that determine the behavior of individuals in the social system, 3) related to behavior, a set of established and long-standing code of conduct or ways of acting of the

community life, 4) emphasized on patterns of behavior that are approved and have sanctions in the community life and 5) institutional implementation directed to standard ways to solve problems that occur in a particular social system (Syahyuti, 2003:17). In order to manage land conflicts in PFMU with the Banjar Model, policy on joint forest management system development with the community in an integrated manner is necessary, which relates all the components and mechanisms of forestry operations.

Various programs/activities of community empowerment in and around the forest, such as granting business licenses for Community Forest, Village Forest, and Partnership Forest can serve as one of the entrances to collaborative conflict management in the forestry sector. Therefore, efforts to secure and assist are necessary. Forestry extension workers as the frontline of forest development at the site level play a very important role in community assistance activities in order that forestry programs can run smoothly on an ongoing basis. Forestry extension workers are expected to serve not only as an educator, facilitator, motivator, and dynamisator but also as a negotiator and mediator in management of various forest conflicts in their home country. Forestry extension workers should be able to play their role as an agent of change for the improvement of social welfare and sustainable forest development.

Based on the explanation above, a concept of land conflict management in PFMU with a Banjar Model can be formulated in Figure 6.

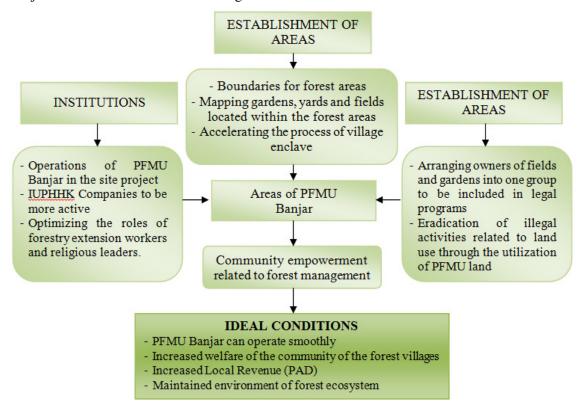


Figure 6. A Conceptual Schema for Alternative Land Conflict Resolutions

## CONCLUSIONS

Land tenure of the forest areas in the villages of Pakutik, Kupang Rejo, Belimbing Lama and Belimbing Baruhas begun since 1948. Land use patterns in the forest areas by the community are in the form of gardens, yards, fields, and settlements.

After the establishment of forest areas, land conflicts began to occur between the community with the government and/or companies. Conflicts with the government were resulted from the establishment of forest areas as protected forest and production forest on the land that has been claimed to be owned by the community. Conflicts with companies obtaining the licence for plantations (IUP) usually occurred due to land grabbing performed by the companies, and issues of compensation or ex-gratia which both parties did not mutually agree.

Causes of land conflicts occurring in Banjar Production-Forest Management Unit consisted of uncertainty in the regional boundaries, forest encroachment, illegal logging, environmental destruction, and land conversion.

Alternatives to conflict resolution necessary to conduct are through the establishment of regional boundaries mutually recognized by those parties, law enforcement and institutional development involving the role of forestry extension workers, religious leaders, bureaucrats, and law enforcement officers.

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