

# Collaborative Conflict Management on Ecosystem Restoration Concession: Lessons Learnt from Harapan Rainforest Jambi-South Sumatra-Indonesia

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## Abstract

Ecosystem Restoration Concession (ERC) is an innovative solution for managing natural forests in Indonesia that integrates forest utilization, environmental services, biodiversity protection and improving the livelihoods of local people. The main aim of ERC is to restore the degraded forest to reach an ecosystem equilibrium. Harapan Rainforest is the first ecosystem restoration concession in Indonesia and it is a site rich with biodiversity. The field implementation process for ERC, however, faces many challenges, and one of the biggest is encroachment. Based on an analysis of a landsat satellite image 7 ETM and Envisat.asat images, from 2005-2012 the total area cleared due to encroachment was  $\pm 18,362$  ha with an average cleared area as large as 2,623 ha/year.

If encroachment continues to occur and cannot be reduced or stopped completely, an area totaling 98,555 ha is predicted to be lost within the next 10 years. This study describes what the roots of the conflicts are, the modus operandi, the connection between encroachers and supporters, and an appropriate resolution strategy. The encroachment problems are complex and involve the local elites, migrants and speculators. The encroachers are now getting stronger and acquiring legitimacy by gaining support from various mass organizations and government programmes. The decision to implement an encroachment strategy can not be undertaken in a universally agreed-upon or repressive way. The encroachment conflict resolution strategies should use a collaborative management approach and mechanisms which are accepted by relevant parties, resolve the problems permanently, avoid human rights violations, apply international standards and create harmonious relationships. Collaborative Conflict Management is participatory and long process that should implement all steps to create new social contract on natural resources and needs patience and a legitimate process.

**Keywords:** Ecosystem restoration; Forest and land conflicts; Encroachment; Collaborative Conflict Management

## Introduction

Indonesia is known as the country with the third highest levels of biodiversity in the world. The total forested area in Indonesia was 134 million ha in 2011 with 82 million ha of production forests [1]. The total forested area decreases significantly every year because of changes to land use, population growth, deforestation and encroachment. For example in the production forest, 27.8 million ha has degraded and low economic potency [2]. These problems are predominantly caused by failure of forest management systems and paradigms.

In the Dutch Colonial, the forest management system firstly implemented in Java and Madura with *Boschordonantie voor Java en Madoera* 1865 [3]. In Sumatra and Sulawesi, Dutch Colonial used *Agrarische Wet* 1870 for law basis in forest management, but this law could not be effectively implemented because it had many weaknesses, overlapped with community' land/forest, and was not suited with local socio-culture [3]. In the Dutch Colonial, community had right to cut forest, and all of land forest that couldnot be showed by legal evidence should be given to government. Poffenberger and McGean [4] noticed that the history of forestry in countries such as the Philippines, Indonesia and Thailand involves a shift from traditional (indigenous or local) tenure to state control, and the possibility to back the control over forest by community is using collaborative management. Thus Dutch Colonial has inherited in forest and land conflicts in Indonesia.

After Indonesian Independence, Government of Indonesia intensified forest exploitation management to increase national income in 1967 through ACT No. 5/1967 about the principal provisions of Forestry [4,5]. It was as a basis for forest management with a natural resource exploitation-based management system using

an administrative, top-down approach. This type of forest management system resulted that almost all state forest (99%) was managed by the state and corporate organizations. Less than 1% (131.209.34 ha) of the total state forests were managed by the community in 2010 [6]. Forests were seen as little more than places for tress and biodiversity without the presence of people [7]. The government has predominantly thought that the primary product obtained from forest production is wood; however wood makes up less than 5% of total forest productions [8]. In 1999, the paradigm towards forest management changed, and became focused on using a participatory and bottom-up approach, administered through a centralistic government. The changing are (1) local and indigenous people through cooperation could have right for forest utilization, managing forest through village forest, community forest and customary forest, (2) community has right to involve in the forest planning and monitoring, (3) community has right for compensation of their forest and land licensed to company, (4) a part of national forest authority has been given to local government. These changes are based on Forestry law No.41/1999. However the changed forest paradigm could not bring about significant changes for effective

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forest management and increased community welfare because the old paradigm had become a “culture” that is difficult to change. For example in the process of determining forested areas the government has failed to implement a participation process that respects the presence of local and indigenous people.

The failure of the forest management system and paradigm is linked with rising levels of conflict over forested areas in Indonesia, which have tended to increase every year. The Land Registration Agency/ BPN recorded that at least 7,491 natural resource conflicts were handled by BPN and the Indonesian police [9]. The Center for International Forestry Research (CIFOR) identified 359 forest conflicts in Indonesia from January 1997- June 2003. The highest frequency occurred in 2000, when there were 153 cases or 43% of the total number. Land conflicts in industrial plantation areas were the highest, reaching 39%, followed by conservation areas (34%) and in Logging Concessions (HPH) with 27% [10]. About 50% of all Indonesian villages (33,000) overlap with state forest areas (Martua Sirait Pers. conference). Almost all state forests handed out as concessions have not gone through the participation process. The Land Reform Agrarian Consortium (KPA) noted that throughout Susilo Bambang Yudhoyono’s time as President that commenced in 2004, 618 agrarian conflicts have occurred, in which 44 people died, 731,342 families have been impacted and a total of 2,399,314 ha have been disputed [9]. These conflicts have strong correlations with new licenses for oil palm, forestry, and coal mining which will take place on community land.

Conflicts arising on the ground have been handled mostly by most concession holders (logging and plantation companies) in a rigorous manner, especially under the Suharto regime. This has created a general mistrust among local communities towards companies [10]. CIFOR noted that 48.8 million people live in state forests and approximately 10.2 million of these people are categorized as living below the poverty line. These are communities that settled in the forest during the Dutch Colonial era. Around 20 million people live close to the forest and around 6 million of them rely on forests for their livelihoods [11].

To reduce natural resource conflicts, the Indonesian government uses both litigation (law enforcement) along with non-litigation techniques (negotiation, mediation, reconciliation and arbitration). This law enforcement approach cannot reduce and resolve land conflict, as it is only a temporary solution [9]. Many law enforcement activities can actually create new conflicts and the process is time-consuming. For instance, the law enforcement (community relocation) in Kerinci Seblat National Park in Jambi-West Sumatra created a new encroachment problem in PT. Restorasi Ekosistem area and PT. Agronusa Alam Sejahtera (Timber plantation company) in Jambi. With so many conflicts over natural resources currently in the courts, the Indonesian government has implemented an Alternative Dispute Resolution (ADR) approach to reduce natural resource conflicts with Act No. 30 year 1999, focusing on arbitration and alternative dispute resolution.

To address forestry issues and conflicts the Ministry of Forestry established the National Forestry Council in 2006. Set up primarily to handle forest conflicts, the National Forestry Council has developed a conflict resolution working group with an emphasis on mediation. Besides government, several NGOs and mediation institutions have promoted and facilitated the mediation process including Scale Up, The Forest Trust, Impartial Mediation Network, and LATIN. This marked the beginning of mediation development in Indonesia.

Deforestation and conflicts combined with the new era of autonomy in Indonesia have contributed significantly to deforestation

and degradation of production forests. Because of deforestation and degradation, the economic benefits of production forests are low and have been impacted upon by the collapse of logging companies. This was proven by the decreased amount of natural production forest that was managed by logging concessions, from 61.7 million ha in 1993 to 27.7 million ha in 2005 [1]. In 2011, production forests that did not have concession holders made up 49,136,665 ha and they had an open access status [12]. If there aren’t any innovative changes to the forest policy in production forests, it can be predicted that by 2020 natural forests in production forests will disappear and in the future only industrial acacia plantations will be found in these forests. Meanwhile, the natural forests especially in dry, low land forests still have a rich level of biodiversity and are a habitat for critical endangered species of mammals.

Concerned about the loss of natural forests in production forests and the loss of flora and fauna, Burung Indonesia together with the Ministry of Forestry initiated the ecosystem restoration concession (ERC) program in 2002. This initiative has changed the forest paradigm from exploiting to restoring, from commodities based to ecosystem based and from single product based to multiple product based management. The new policy on ERC in production forests was established when the Ministry established the Ministry of Forestry Regulation SK 150/ Menhut-II/2004. Through this policy the production forest can be managed with the aim of restoration ecosystem, called “Izin Usaha Pemanfaatan Hasil Hutan Kayu Restorasi Ekosistem (IUPHHK-RE)”/ forest utilization permits on ERC”. IUPHHK-RE has four activity pillars which are stabilization of the concession area, rehabilitation of the economic values of production forest, restoration of flora and fauna and developing economic and social aspects [13]. It is hoped that using these 4 pillars, the preservation and maximization of forest products can be achieved and can mitigate the degradation, deforestation and can improve economic and social development.

Regarding to reducing forest/land conflict in production forest, Indonesia government issued Ministry of Forestry Decree No.P.39/ Menhut-II/2013 about empowerment of local community through forestry partnership. The forestry partnership means that cooperation between local community and concession holder in developing capacity and access with equality and mutual benefits (Article 1 point 3 P.39/ Menhut-II/2013). On this decree clearly stated that the forest partnership aim is to reduce forest conflict and empower community within and around production forest including on IUPHHK-RE. The forestry partnership can be achieved by using negotiation and mediation.

Ecosystem Restoration Concession or IUPHHK-RE is an endeavor to restore biotic (flora and fauna) and abiotic (soil, nutrient and hydrological cycle and other natural processes) elements to production forests in order to restore biological equilibrium [14]. Then ERC umbrella regulation was established by the Government of Indonesia through Governmental regulation No. 6/2007 on Forest Arrangement and Formulation of Forest management and Utilization Plans; to Governmental Regulation No.3 /2008 on Amendment to Government Management and Utilization Plans. The aim of ERC is to restore the logged over areas of production forests or open access spaces [14]. Based on Dirjen BUK data these logged over area is 49,136,665 ha in 2011 [12,15]. The ERC permit’s aim is to maintain the forest functions, optimize environmental services, non-timber forest products and forest area services.

According to new legislation on ERC, Burung Indonesia and its consortium (The Royal Society for Protection of the Birds/RSPB and Birdlife International) encouraged the ERC initiative in Harapan Rainforest (HRF). IUPHHK-RE Harapan Rainforest is the first ER concession and the second largest ERC in Indonesia [16,17]. Harapan Rainforest has 98,555 ha with two licenses awarded to PT. REKI in 2007 and 2010 [17].

As a new piece of legislation that utilizes a new approach, ERC has received attention from other applicants who are also interested in obtaining a permit. There are 47 applicants for ER concessions from 2007 covering 4,125,115 ha whereas there are 12 ERC holders that have concessions with a total area of approximately 500,000 ha [12]. Because the ERC policy is new and different stakeholders are not yet aware of the many technical regulations needed, so there are many challenges in implementing this ERC policy. Using the case study of the HRF, there are omissions in the policy concerning the regulation of ERC and is still reliant on the wood production paradigm, a lack of technical guidance, problems with encroachment and illegal logging, and many more. One of the biggest problems in the ERC is encroachment. The unit management cannot restore the forest and undertake research and development if encroachment occurs.

Based on mentioned above, many of these conflicts are poorly managed, resulting in negative impacts to both the community and the company, including anxiety, fear, disruption to the company's operations and instability [11,18]. Additionally, conflicts over land and forests are viewed as contributing to unsuccessful logging concessions, timber and oil and one of the key constraints of investment in forestry in Indonesia [18,19]. This underlines the need to develop effective and collaborative conflict management approaches, thereby minimizing this potential damage.

This article describes the affects of encroachment on ERC, conflict and stakeholder analysis, an appropriate resolution strategy, and how to resolve these using the collaborative management. The structure of this article includes the research methods and collaborative management framework, the background of the conflict, results and discussion and the conclusion.

## Research Methods and Collaborative Management Framework

One site of ERC- Harapan Rainforest was selected as a case study based on the levels of conflict at this site and efforts to apply collaborative conflict management to resolve these issues. The other criteria is that the Harapan Rainforest was the first ERC and the biggest concession in Indonesia in 2013, and now to be second largest [17], which is now 7 years old and has experienced many different types of conflicts, with many solutions applied to resolve these conflicts, with differing results. In order to understand how stakeholders engage in conflict and conflict resolution, various data acquisition methods were used, namely a literature review, FGD with PT REKI and Community, facilitation of conflict resolution with the conflicting parties and interviews with relevant stakeholders. Field data collection was conducted in May-October 2012. Several FGDs were performed with PT REKI, migrant communities, Malay/ Batin Sembilan Community, Non Governmental Organizations (NGOs) and academicians. Semi-structured interviews were conducted with PT REKI, migrants, Malays/Batin Sembilan community, academicians, NGOs, and government. Following this, conflict resolution meetings were held with the relevant parties several times.

To facilitate the data collection and analysis, researcher uses the logical thinking from empirical facts which is comparing the 3 conflict resolution strategies implemented by PT REKI such as: litigation/law enforcement, non litigation (negotiation and mediation) and do nothing. The evaluation effectiveness of these three strategies are based on ecological benefits, mutual benefit and access for community, relationships both of conflicting parties, meeting with national and international law/regulation.

In the context of different tenure situations, and to manage complex social and institution as well as silvicultural, and issues like in forest management in Indonesia, collaborative management is the good approach to reach sustainable forest management [20]. To reach the high quality of collaborative management result needs high ladder participation. According to Carter and Gronow [20] Collaborative management is "loosely defined as a working partnership between the key stakeholders in the management of a given forest—the key stakeholders being local forest users and state forest departments, as well as parties such as local governments, civil groups and non-governmental organizations, and the private sector".

According to Scott [21] collaborative forest management should inclusive all of parties, must flexible and open of inputs. He offered several principles of collaborative forest management which are implemented by forest authorities, sustainable forest management is the major objective, high ladder participation, process orientation and implementation output, fair deal all of parties, fair distribution and benefits, address real issues, responsible for agreement, permanently result, all interest group must be involved, and agreement should be arrive at through consensus.

Considering the forest conflicts and how to resolve it with permanently and bring benefit to conflicting parties, as well as manage the complex social and economic issue, I adopted the Collaborative Conflict Management (CCM process) of Castro and Engel [22,23] to analyze the conflict resolution process in Harapan Rainforest. CCM is an iterative process, able to speed-up or slow-down the process quickly and efficiently. The process is divided in to 4 milestones with ten steps and specific activities. The steps in this approach create a "process pathway". Process Pathways help mediators/facilitators progress towards CCM and achieving beneficial results. The four milestones and ten steps can be seen in the Figure 1.

## Background on Conflicts and Sites

Harapan Rainforest is located in the border of Jambi and South Sumatra provinces with 98,555 ha (Figure 2). This site was proposed to become the ER concession as this area is the last remaining dry low land rainforest in Sumatra, with rich biodiversity and is the habitat of large mammals such as the Sumatran tiger and Sumatran elephant and this area is also categorized as an Endangered Bird Area [24]. Based on Holmes [25] Sumatran low land forest will be disappeared in 2015, and its ecosystem becomes the most critical endangered ecosystem in South East Asia. With protecting this forest landscape, means that protects 20% of remaining Sumatran lowland forest.

Originally, the location of HRF that was proposed by Burung Indonesia and its Consortium to the Ministry Forestry was smaller than the total area of these two logging concessions which is only 101,355 ha of from 214,387 ha. The smaller proposed area was aimed at avoiding conflict with community. Following this, the Ministry of Forestry released the first PT REKI 'permit totaling 52,170 ha in the South Sumatra in Musi Banyuasin District through SK.293/Menhut-II/2007 and PT REKI' and a second permit totaling 46,385 ha in Jambi Province, Sarolangun and Batanghari District with SK. 327/Menhut-II/2010.

In Harapan Rainforest there are approximately 228 families of Batin Sembilan Indigenous people [26] who live in this area and depend on the forest and its natural resources for survival. Historically the Batin Sembilan Indigenous people have practiced swidden cultivation (slash and burn), collected non-timber forest products and hunted and gathered animals to fulfill their need for protein and also to sell as a source of income. Some of this group has settled in villages and others still live a semi-nomadic life. They have a specific economic and social



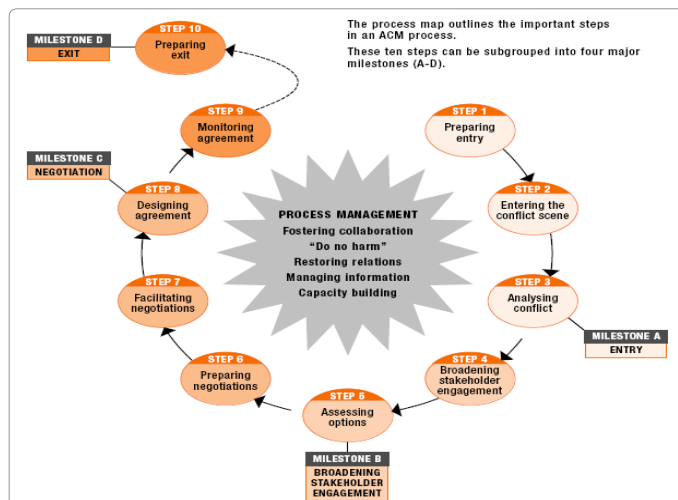


Figure 1: The important steps of collaborative conflict management [22,23].

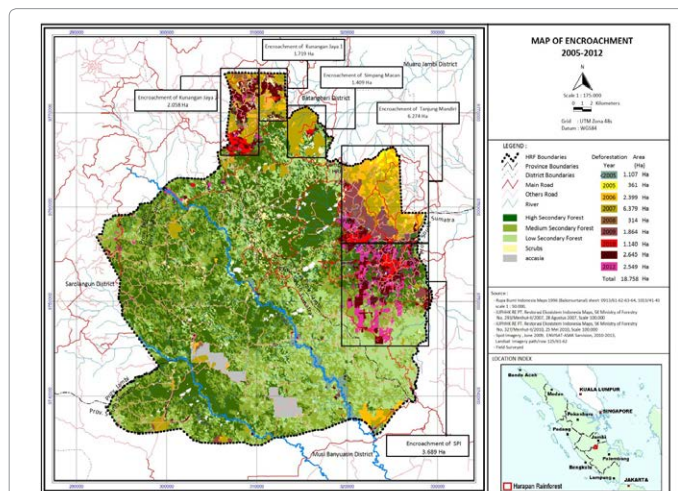


Figure 2: Location map and the encroachment problem in Harapan Rainforest.

system based on their traditions and can be differentiated from other people living in these villages [26]. PT REKI accommodated the Batin Sembilan right through giving 5% of concession to be livelihood zone on PT. REKI' land use zone. There are 3,201 families or 14,400 people including migrants living in and around the HRF in the six villages, including: Sako Suban and Pagar Desa in South Sumatra, Bungku, Tanjung Lebar, Sepintun, and Lamban Sigatal in Jambi Province [27]. Only one of these villages is on the boundary of the Harapan Rainforest which is Sako Suban, the others are out of the Harapan Rainforest concession. The Malay and migrant people tend to plant of oil palm, rubber, rice paddies, and other agricultural plants. In Sako Suban and Pagar Desa villages the community is involved in illegal logging activities.

Many migrants have come to the Harapan Rainforest from Jambi and other provinces since 2007. The largest number of migrants has come from 2007-2010 [17]. PT REKI has not had the right to undertake monitoring and forest protection work during that time as the license for the Jambi area had not yet been received. The presence of new migrants has impacted on the levels of encroachment in this area and on illegal logging activities. When the Government was given the license for the Jambi area in 2010, at least 13,563 ha of PT REKI's ER

concession area was opened up by encroachers. This meant that the local government could not undertake monitoring activities in this concession. This period can be described as having open access without any concession holders. Approximately 28% of the ER concession area in Jambi has suffered from encroachment; PT REKI should pay tax to the government for the total concession.

Two of the biggest challenges for ERC in Harapan Rainforest are encroachment and illegal logging. Based on an analysis of a landsat satellite image 7 ETM and Envisat.asat image, from 2005-2012 (Figure 2) the total cleared area due to encroachment and illegal logging was ±18,758 ha with an average cleared area being as large as 3,126 ha/year. If the encroachment cannot be stopped stop, this concession area in Jambi will be lost within the next 10 years. In Jambi area, the main cause of land clearing is encroachment. Meanwhile, in South Sumatra up to the Jambi border, illegal logging predominates. Conflict resolution, however, is directed towards dealing with conflicts arising from encroachment in the Jambi area.

From the total cleared land area, encroachment has sporadically taken place in the northern area, where the bottle caps are located in Kunangan Jaya, which is as large as 3,777 ha, in Simpang Macan, which is 1,409 ha and in eastern area which includes Tanjung Mandiri and Alam Sakti amounting to 6,274 ha and in the Serikat Petani Indonesia' (SPI's) claim area with the total 3,689 ha (Figure 2). In this article resolving conflict mainly discusses the conflict between migrants and PT REKI in two sites which is in Kunangan Jaya and Tanjung Mandiri. The majority of people in these two sites is migrant, only small portion (less than 10%) is Batin Sembilan Indigenous People and Malay-local people. Nevertheless, the intermarriage of migrant and indigenous people and Malay local people has happened in this area, and majority of migrants admitted to acquire land from Indigenous and Malay people [28,29].

## Result and Discussion

### Rate of deforestation in Harapan Rainforest

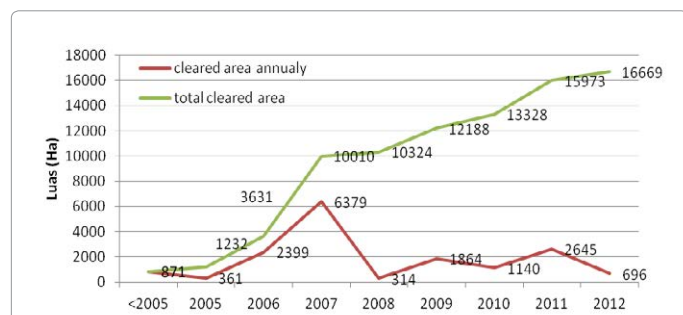
There has been a steady increase in the annual amount of land cleared. As Figure 3 below indicates prior to 2005 there was only 871 ha cleared. The amount of cleared land peaked at 6,379 ha in 2007 and dropped down to 696 ha in 2012. But the overall trend has been upward.

Many efforts have been undertaken to decrease the levels of deforestation in Harapan Rainforest, which include non litigation (negotiation, mediation, social development to reach Forestry partnership), and litigation (law enforcement, forest fire monitoring, and forest patrols).

### The roots of conflict

To comprehensively understand the land/forest conflict in Harapan Rainforest it is necessary to understand the policy on forests (national and Jambi) and its implications, the role of the government as a regulator, intervention, formal and informal regulations, the situation of land use and inequality of land tenure and the motivations of encroachers.

The roots of this conflict in Harapan Rainforest have a strong relationship with central and local government policy. These policies still prioritize the companies as managers of the production forest creating land tenure inequalities between corporations and the community. This can be demonstrated by the fact that 99% of production forests are under company management and less than 1% are under community management until 2011[6]. Central government



**Figure 3:** Land clearing rates in Harapan Rainforest from 2005-2012 (Harapan Rainforest Management Unit 2013).

policy on transmigration has failed to anticipate the environmental impacts and the land needs of the second generation. Transmigration programs are linked to conflict and encroachment, for example: transmigration program face conflict within the Bukit Tigapuluh National Park, Tesonilo National Park, and conflict in Alam Sakti-Tanjung Mandiri in the ER concession of Harapan Rainforest.

In Jambi and the area surrounding the Harapan Rainforest, most of the forest and the land have been leased to oil palm and industrial plantation companies. Besides, the forest partnership that is a mandatory of company license under P.39/Menhut-II/2013 do not succeed implemented. So far the forest management system has lacked participation, is driven by a top-down decision making process and involvement of the police and the military to push community [10]. The top-down licensing process does not always take individual conditions and circumstances into consideration. It implies many of the licensing overlaps between local and customary rights are the root of forest and land conflicts.

When there are many overlapping issues between the rights of a company and a community, the government has no responsibility to resolve these issues. Instead, they allow the company to resolve them independently, even though they have already spent money on the licensing process and taxes. In short, it can be said that the government policy typically victimizes both the company and the community. In the case of the Harapan Rainforest, when the government issued a license for PT REKI in Jambi 2010, the total encroacher's area covering around 13,000 ha ( Figure 2). The government has let PT REKI to resolve the encroached area independently without support from central and local governments even company has already paid license fee and other responsibilities.

Another root of the conflict is differences between the Agrarian Law No. 5/1960 and other sectoral laws (eg: Forestry law No 41/1999, plantation law No.18/2004). In agrarian and forestry law, customary ownership is recognized, however in forestry law the operational/technical regulation for implementation customary law are not available. Thus no customary law has been issued by Forestry Minister. In the Village law No. 5/1975 has also recognized the indigenous people right, but the Village Law weakens community land control and the rules concerning customs attached to them. This situation is compounded by the loss of traditional cultural treasures (such as erasing traditional leadership roles and changing this to a uniformed approach) and loss of their economic resources because the control of the forest and land has moved to a private party.

In the democracy transition era, the power of the state for agrarian resources (forest, land and mining) is weakened. All natural resources that have been categorized as common-pool resources (e.g forest)

become open access [30]. He explained further that categorized ownership of forest in Harapan was before as a "common-pool customary property right" by Batin Sembilan indigenous people. When this forest was given to logging concession company the ownership shifted to "common-pool private property". Then when PT REKI got the forest concession in 2010, it has been changed into "common-pool quasi conservation private property". Wibowo [30] noted that the effective way to manage common resources/property are collaboratively approach.

The encroachers began to come to HRF when the ex PT Asialog forest has no concession holder which was between 2005-and 2010 [31]. Community viewed that forest ex PT Asialog is open access and local government could not able to protect the forest, local government did not implement their function as monitoring. The government has a chance to open up the forest thereby improving their livelihoods. Local elites, speculators and businessmen have illegally logged, opening up the forest and claiming it as their own and then selling forest products to others. When the law enforcement done, encroachers invite their family and connections to strengthen their power and legitimacy. Newcomers get identity cards and buy the land from the local elite to prove that they are legal.

In 2010, even though PT REKI had obtained ERC licenses, new migrants logging the forest could not be stopped completely. Almost all new migrants after 2010 came to Harapan Rainforest with economic motivations. New migrants can buy forest and land very cheaply from local elit, and then plant oil palms that can add up to 1000% to their land value. They said they are "gambling", and they believe that the more people that relocate here the more power they will have.

Different perceptions, interests and needs of stakeholders in the Harapan Rainforest are some of the root causes of the conflicts. The Batin Sembilan Indigenous people perceive that the Harapan Rainforest is their own. The Local Malay people perceive that they have access/right to its natural resources and as micro climate controllers, PT REKI and board of patrons (Board of patrons are the representatives of Harapan Rainforest initiators (Burung Indonesia, Royal Society for Protection of the Birds, and Birdlife International) or shareholders to be the highest position in strategic and direction in decision making. There number of Board of Patrons are 5 from these tree organization) perceive that Harapan Rainforest is also under their own private ownership. Migrants perceive that this is state forest and should function for the welfare of the community; thus they have right to open forest for their livelihoods. The government perceives the Harapan Rainforest is owned by the state managed by PT REKI. Different interests of these groups include forest restoration, protection, and exploitation for economic development, for business and traditional livelihoods are other roots of the conflicts.

### Actors, power relations and chain migration

Total encroachers in HRF are predicted to be approximately 8,000 families (Budi Aulia pers.com). The massive amount of encroachers happen in Sungai Jerat called Claim SPI. Initially, the encroachment problems are very complex and involve the local elites, migrants and speculators. Staff form local government, individual law enforcement apparatus involve and have provided support to the encroachers. The encroachers are now becoming stronger by gaining support from various mass organizations and NGOs /CSOs (STN, CAPP, PH, AGRA, SETARA, SPI, PRD) that use poverty, land reform and reject the REDD+ campaign (they support encroachers to grab HRF). Meanwhile others bring up issues concerning poverty (PP), Indigenous people (AMAN), the environment (WARSI, Gita Buana, SSS) to try and empower the community to reach natural resource

agreements. Various government programs, village heads and elite government visitors and local elections have legitimized the existence of encroachers. An analysis of actors and power relations in land/forest conflict in Harapan Rainforest can be seen in Figure 4.

Based on participatory data of land claims coordinated by Forestry District of Batanghari in 2012 most of migrants/encroachers in Kunangan Jaya I are coming from Jambi provinces which are second generation of transmigration locations (Singkut, Pemenang, and Kuamang Kuning) and the rest are coming from other provinces. Meanwhile in Kunangan Jaya II, most migrants are coming from North Sumatra (25.74%), Jambi (22.77%), Jawa (12.21%), and the rest are coming from Aceh, Bengkulu, Lampung, Palembang, Kepulauan Riau, Pekanbaru and Kalimantan. It is indicated that there is a good relationship between the actors in Harapan Rainforest and the leaders in each province who invite more people to come to these areas. The second generation of trans-migrants are coming to the ERC in Harapan Rainforest because their father's land listed under the trans-migrant scheme (2 ha) and this is not enough for their children. The successful trans-migrants also want to expand their oil palm land by buying very cheap land in Harapan Rainforest. One hectare of forest in HRF can be bought from Rp.500.000 - 2.000.000. SPI local leaders in Sei Jerat have offered 2 ha for Rp1million to new migrants. Several encroachers have sold their land in North Sumatra and Jawa and a half a hectare sold there could buy more than 10 ha of forest and land in Harapan Rainforest. Many of the new migrants are speculators who buy and open the forest and sell it again to others at a higher price.

From these actors in Harapan Rainforest, the primary stakeholders are PT. REKI, community and Ministry of forestry/local government. NGOs, local elites, and law enforcers (army, police, judges) are secondary stakeholder. Meanwhile the rest (donors, journalist, investors) are the terrier stakeholders. In the process of conflict resolution through negotiation and mediation in Harapan Rainforest, there are only primary stakeholders to sit in the negotiation table. However, secondary stakeholders involve in engagement process.

### Lands claims and commodities

Based on participatory mapping data coordinated by the Batanghari Forest Agency Team in 2012, those carrying out encroachment are usually not locals to the area in which the encroachment takes place, and may also be owners of capital. Only about 20% of encroachers possess 2 ha of land and fall into the poverty category, 37% are in the middle category which possess 2.25-5.5 ha, whilst 53% of encroachers possess more than 5.5 ha with some even possessing hundreds of ha such as JT (200 ha), NBH (31 ha), GLG (8 ha). It means that majority of encroachers are not really poor but are using their land acquisitions to become more wealthy.

To strengthen their land claims, encroachers get the "SKTT" (Surat Keterangan Tanam Tumbuh/Plant Ownership Certificate) from the village head. This letter explains the ownership of plants above the ground. This letter is not a legal certificate which makes it difficult to use as evidence in court.

Commodities planted in encroachment areas based on the Participatory registration in Kunangan Jaya are oil palm (23%), rubber (7%), rice paddies and agricultural plants (3%), and the remaining encroachment area (67%) is scrub. Encroachers tend to plant oil palm because of the good/stable price, is suitable based on the agricultural conditions, and it generates a high income.

### Innovative approaches and negative precedents on the HTR decision

There are many systems that have been put in place by Harapan

Rainforest Management Unit (HRFMU) in order to resolve the conflict in a persuasive way. This has included: socialization, registration land participatory, establishment of a government integrated team, negotiation, and mediation. Socialization has been conducted by government integrated team called "KP3RE" (Kegiatan Penanganan dan Penyelesaian Perambahan di Kawasan Restorasi Ekosistem) established by the Jambi Governor in 2012. KP3RE has three divisions such as socialization, partnership and law enforcement. Socialization has been conducted in Kunangan Jaya I and II, Alam Sakti and Tanjung Mandiri. The socialization team was rejected by a member of SPI in Sei Jerat. Registration claim participatory is as an innovative way to know and control the encroachers and obtain land ownership with a higher level of legitimacy. The land registration land participatory has succeeded in Kunangan Jaya I and II and Tanjung Mandiri.

Negotiation process for one group (Narwanto) in Kunangan Jaya I has been succeeded to reach an agreement and mediation process is in ongoing process (Tri Magnuh group). Negotiation process is facilitated by Batanghari Forestry Head. The mediation process with Tri Magnuh group was stuck more than a year from 2012 and has been started again in the November 2013. When the conflicting parties want to publish of its next mediation process in September 2012, on the same time the executive head of PT REKI was changed. The new management does not support mediation process. The Board of Patron PT REKI doesn't have a good understanding of the mediation process, which resulted in the mediation failing to achieve the desired outcomes. At the same time, community in Kunangan Jaya II held a demonstration against the Ministry of Forestry at the local government office. The conflict in Kunangan Jaya involves the acacia and rubber plantations (PT ALN and WN) and has become a national issue. Thus, the Ministry of Forestry office facilitated a meeting with the conflicting parties to resolve the conflicts. Unfortunately, when the community held the demonstration after three months, on 1st February 2013 the Directorate General of *Bina Usaha Kayu* released the letter No S.92/VI-BUHT/2013 deciding Community Forestry Plantation/Hutan Tanaman Rakyat. This decision set a bad precedent in resolving the conflict because it was against the law and did not accommodate the company's interests and Kunangan Jaya I community as well as influenced the mediation process. This decision opposes the Government Regulation No 26/2008, whereas limited production forest and production forest that have concession holders can not be given a Community Forestry Plantation permit. It means that there is an overlap between the two permits. The decision also disturbed the mediation process in Kunangan Jaya I.

The law enforcement processes are done by law apparatus on criminal (burning the assets, burning and cutting the forest). Several time law enforcements are done for criminal cases and for Claim SPI areal due to their presence from in 2011-2013. It means that the

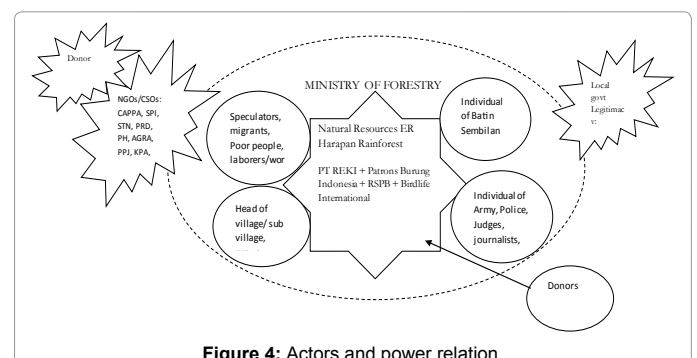


Figure 4: Actors and power relation.



encroachers come after license was hold. Law enforcement processes always increase the escalation of conflict. There were two incidents when the forest patrol camps, cars and motor bikes were burnt by encroachers and they kidnapped the patrol staffs. The law enforcers can temporarily pressure the encroachers, but this action invites more new migrants into Tanjung Mandiri and Claim SPI area. The community invites more people to increase their power. On another place-Sei Jerat with do nothing activities, encroached area become bigger and bigger.

### Comparing the conflict resolution strategy in Harapan Rainforest

To analyze the appropriate strategy in conflict resolution based on point 2 the second paragraph, three approaches that has been used in HRFMU are litigation law enforcement, doing nothing, and non litigation using a collaborative method (negotiation and mediation). Litigation (law enforcement) methods to resolve conflicts arising from encroachment, as mentioned above, cannot permanently resolve land clearing disputes as it just stops them temporarily. Law enforcement can create hostility, increase conflict escalation, impact upon victims and cause damage, and the result of court decisions may not be applicable in the field [19]. For example the incidents of burning 2 cars, dozens of motor bikes and post guard on 31<sup>st</sup> July 2013. There are often feelings of injustice on the part of the aggrieved party that are only exacerbated. The litigation process increases the level of hatred, widespread conflict and improves the skills of the next generation of militants. The litigation process always addresses the human rights issues and is based on international principles. This process is used appropriately in the criminal cases with the speculators are targeted and avoids issues human rights. In the case of Tanjung Mandiri and Claim SPI, law enforcement activities impacted upon the staff of REKI who could not access the forest and control new migrants. Law enforcement activities could not develop a partnership scheme that benefited PT REKI, the communities and the forest.

By doing nothing, there is no clear resolution and conflict escalation is stable but the number of encroachers will increase. PT REKI could not manage the forest and land independently. Besides, the company's reputation will worsen and no initiative, not even the ERC regulation will help the company to exercising their policy and strategy for conflict resolution because the status is a production forest, not adaptive and no innovation, and this will cause the loss of the ERC program in Harapan Rainforest and other new ERCs in Indonesia.

Non litigation using negotiation and mediation or another term "collaborative conflict management" will result in an acceptable mutual and workable agreement. The agreement is freely upheld without coercion and covers the rights and responsibilities of the encroachers and PT REKI. CCM creates harmony between encroachers and PT REKI like in Kunangan Jaya and Tanjung Mandiri. Such harmonious relations will also decrease patrolling because local communities will automatically act as "social security". CCM provides a sense of justice and results in-line with international principles and laws such as FPIC and the upholding of human rights adheres with "PHPL" (Indonesian sustainable forest management scheme) on social criteria indicators. Implementation of CCM in resolution conflict will reduce the conflict escalation, can control and give benefit both people, company and forest. A new social contract or agreement can be negotiated based on a collaboration zone in the company's yearly plan that is agreed on by the Ministry of Forestry. Any new forest logging can be stopped, new migrants can be controlled and commodities can be negotiated. The social contract and agreement can bring social and economic benefit for community, and creates a positive image for the company. It can

be seen from the case of Kunangan Jaya I whereas the harmonies relationship developed and agreement will bring benefit to both of conflicting parties. In short, collaborative conflict management is a more appropriate way to resolve the forest and land conflicts.

### Implementing and adjusting the collaborative conflict management

Conflict can be difficult to resolve but it can be managed to create more equitable solutions. Managing the conflict over common pool resources needs collaborative action [30]. Based on the conflict and several methods that have been initiated by PT REKI with some problems and issues, the encroachment strategy in Harapan Rainforest could not be implemented in a universally applied way. The main approach is to create benefits for both conflicting parties in order to create a new agreement for natural resource management in Harapan Rainforest by using collaborative approach and a legitimate process.

Based on conflict collaborative management [22,23] we analyze the implementing of the Collaborative Conflict Management model in Harapan Rainforest with using the example in Kunangan Jaya I and Tanjung Mandiri as below:

**Milestone A: Entry to the conflict:** PT REKI has the initiative to contract the third independent facilitators or conflict resolution experts in Kunangan Jaya I and Tanjung Mandiri to do conflict analysis and capture recommendation options. These two independent consultants are expert from Wahana Bumi Hijau and Impartial Mediation Network. The independent consultants came in to Kunangan Jaya I and II and Tanjung Mandiri to understand the root of the conflict, stakeholder analysis, and resolution options. This step is a part of the initial conflict research and is based on a detailed understanding on conflict and consultation with stakeholders in Kunangan Jaya I and Tanjung Mandiri. There are three steps to reach Milestone A that has been implemented in Harapan Rainforest:

**i. Preparing entry:** Independent consultants clarify their roles with the conflicting parties. Research the background of the conflicts, and develop a good strategy to approach the different parties in Kuangan Jaya I and Tanjung Mandiri.

**ii. Entering the conflict scene:** independent consultants meet firstly with the conflicting parties separately (communities, PT REKI, and local government), then with other stakeholders to understand how they see and view the conflict. Independent consultants clarified their role in participating in the process, and ensuring their commitment to work together to resolve the conflicts.

**iii. Analyzing conflict:** Independent consultants analyzed the root of conflicts, conflict escalation, modus operandi, and stakeholder's analysis in Kunangan Jaya I and Tanjung Mandiri. The consultants should get the picture whether both conflicting parties agreed or not for willingness to resolve the conflict. The most important of this step is to know that conflicting parties in both locations are willingness to resolve the conflict/sit together.

In the case of Kunangan Jaya I, and Tanjung Mandiri, independent consultants succeeded to implement these tree steps and get the information needed. Getting based interest negotiation is a part of the work and their intervention will not create harm to either party. The frank communication and a precautionary principle have been taken for move forward the process in to Milestone B.

**Milestone B. Broadening stakeholder engagement:** There are

three steps that have already done in Kunangan Jaya I and Tanjung Mandiri to reach Milestone B:

**i. Broadening stakeholder engagement:** Independent consultants help conflicting parties to share their positions, their different needs and interests, and choose conflict resolution mechanism. Especially for interests, facilitator should look for the slices of their interests.

**ii. Assessing the options:** Independent consultants help the conflicting parties to produce an alternative in resolving and managing the conflict. The benefits from each alternative are analyzed and prioritized. The task of these two consultants stopped in this step, then PT REKI and community agreed to choose forestry district Batanghari as facilitator to follow up the object and subject of conflict before entering negotiation and mediation.

**iii. Clarify object and subject the conflict:** participatory claim land registration has been done in Kunangan Jaya I and Tanjung Mandiri. Forestry district is a leading facilitator for it supported by communities, PT REKI, and NGOs to have legitimacy process. Claim land registration is very important to know clearly the object and subject the conflict for move forward to negotiation/mediation process.

In the case of Kunangan Jaya and Tanjung Mandiri, to reach of Milestone B has been done 3 steps as mentioned above. From the conflict analysis reported by consultants and claim land registration done participatorily, conflicting parties In Kunangan Jaya I and Tanjung Mandiri agreed to choose facilitator and mediator. Group Narwanto in Kunangan Jaya I and PT REKI choose negotiation process facilitated by head of Batanghari Forestry District, Tri Magnuh- group in Kunangan Jaya I and PT REKI agreed to use joined mediators (Independent and government mediator), and Tanjung Mandiri and PT REKI choosed integrated team of Batanghari District government to be a facilitators. After every conflicting parties agreed to sit in one table then the negotiation process can be done. In the process of mediation, Milestone A and B is also called pre mediation.

**Milestone C. negotiation:** From mentioned above, there are three kinds of conflict resolution process to be done which are negotiation for Narwanto Group, mediation for Tri Magnuh and Tanjung Mandiri. For Narwanto group negotiation process has been reached an agreement (step 9), while for Tri Magnuh Group is in the second roundtable meeting (step 8), and for Tanjung Mandiri is in the initial step (step 7). To reach Milestone B steps to be done are:

**i. Preparing for the negotiation:** Facilitators and mediators used the conflict analysis reports as a basis for preparation negotiation. Facilitators and mediators engaged conflicting parties in Kunangan Jaya I and Tanjung Mandiri to make a pre requirements e.g no black campaign, no new cutting forest, no law enforcement done, etc and have a willingness to sit together. The facilitators and mediators use precautionary principles and enough preparation. This covers the preparation of people involved, legitimate mandatory, explores strategies, and a plan of type of meeting to be held.

**ii. Facilitation negotiation:** This part is the most challenging for conflict resolution as it involves the conflicting parties attempting to convince each other to reach an agreement. In the Narwanto group vs PT REKI, there were 4 roundtable meetings that have done to negotiate the conflicting parties' interest. The difficultiest negotiation is when they resolved the existing commodity (oil palm) that is contradict with forestry law. Facilitator showed the skill to change the position in

to interest /basic needs and reduce the gap between the parties. The same happen in group Tri Magnuh vs PT REKI, the second meeting tried to deal with existing commodities (oil palm and rubber), but it could not reach an agreement yet and has to be negotiated on the third roundtable meeting. When the roundtable meeting done, several times facilitators/mediators initiated a separate meeting to have hidden interests, influence both of parties, and reducing gap.

**iii. Designing the agreement:** when Narwanto Group vs PT REKI has been discussed prioritized problems and agreed the resolutions, the facilitators/mediators drafted and got an approval from conflicting parties. The facilitators should encourage the implementation of the agreement. There many agreements that cannot be implemented after the mediation is finished and implementation can be more difficult than reaching an agreement.

This step is also called negotiation and mediation process. The next step is to implement and monitor the agreement.

**Milestone D: Exit strategy:** The three cases mentioned above have not reached the milestone D yet. Especially for Narwanto Group that has signed agreement with PT REKI, agreed to implement and monitor the agreement for getting mutual benefits and building harmonies relationship. Commonly the function of facilitator and mediator has only to reach an agreement. However, for the natural resources conflicts that is complex, facilitators/mediator should involve in the implementation and monitoring the agreement. This may be due to a setback when the conflicting parties could not implement the agreement or the relationship cannot make a full recovery. Even though the facilitators could not resolve all conflicts at the one time, they should ensure all of parties obey their agreement. Steps 10 and 11 should be done in the case of Narwanto vs PT REKI:

- Monitoring agreement: the facilitator (Head of Forestry District in Batanghari) should use their role to encourage the implementation and monitoring of the agreement.
- Preparing for the exit: The Batanghari Forestry District head should be able to develop a system/mechanism to transition the responsibility to the conflicting parties in the implementation and monitoring of the agreement. It can be transferred to a local facilitator to continue the monitoring process. Facilitators can develop the capacity of conflicting parties to resolve their conflict further.

The management process should cover minimal 9 steps as Castro and Engel [22,23] noted, foster collaboration, do no harm, build trust, restore relations, manage information, and build capacity. In the collaborative conflict management, should be patient and legitimated process. Nevertheless, the steps of CCM should be adjusted based on context and adapt with changing and complex issue.

## Conclusion

The root causes of conflicts in Harapan Rainforest are central and local government polices impacting on the inequality of land tenure and not pro poor, the increasing population while the land is stable, developmental approaches, unification of village regulations, conflicting intra-formal laws and conflicts between formal and informal regulations, open access to resources and no concession management. Harapan Rainforest conflict reflects the forest and land conflict in Indonesia with complex and involving many stakeholders. Harapan Rainforest conflict also inherited of Dutch Colonial when implemented the Agrarische Wet 1870 in Sumatra. Implication of Agrarische Wet



1870 implementation was forest and land of Indigenous people in Sumatra including Batin Sembilan were back to colonial government because they could not show the evidence ownership [3]. Then it was followed by Indonesian government after independence.

The biggest problem for forest management in Indonesia is encroachment as impact of conflict over forest and land including in ER concessions. In the case of ERC Harapan Rainforest conflicts, many different parties are involved, each with a different perception, position, needs, interests and motivations. There are various motivation of encroachers which are for fulfill their basic need (poor people), increase their oil palm/rubber plantation (middle class), getting rich/wealthy (speculators, elites). Conflict in Harapan Rainforest has become more complex when the local/traditional elites involved, gaining the support from various NGOs, and local government supports. It needs a high level of conflict and stakeholder analysis to understand the real conflict and innovative solutions.

Based on the PT REKI experience and mentioned above, a conflict resolution strategy should prioritize non-litigation (negotiation and mediation) process with collaborative approach, and be followed by the litigation process (law enforcement) for criminal cases and speculators. This strategy can reduce the deforestation rate in Harapan Rainforest, control new migrant and bring benefits for people and forest including wild life. With using the litigation approach in the beginning of the project, PT REKI could not control new migrants; did harm community, created un-harmonies relationship, and got bad image.

Common pool resource management like Harapan Rainforest involves the interests of many stakeholders at different levels of hierarchy (international, national, provincial, district) and the conflict is very complex, high social and economic pressure, and fast changing situation. To address the conflict in Harapan Rainforest should use the Collaborative Forest Management. The collaborative conflict Management will bring benefit for the forest and community as a requirement of 4 pillars of ERC and can lead to sustainable forest management. Regarding to Conflict Collaborative Management process to reach 4 milestones should be implemented to guarantee the result and mutual agreement that can be implemented. However, it needs to be adapted/adjusted based on contextual problem and a flexible, and the process should be improve continuously.

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