Fostering the Community Plantation Forest (HTR) Program in Lampung and Gorontalo, Indonesia

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EXECUTIVE SUMMARY

The Community Plantation Forest (Hutan Tanaman Rakyat or HTR) program is one of the five schemes that comprise the ‘social forestry’ (SF) agenda developed by the Indonesian Ministry of Environment and Forestry (MoEF, Ministerial Decree No. 83/2016). The MoEF defines ‘social forestry’ as a land management system that involves forest management on state or community-owned land, whereby forests are managed to improve the welfare of local communities while also protecting environmental and cultural values. The MoEF’s implementation of the HTR program aims to:

- transfer authority for the forest’s management to the local community;
- build the local community’s knowledge and skills about forest management; and
- encourage the commercial use of designated forests to improve the local community’s livelihoods.

Given the importance of the HTR program in terms of meeting the government’s goal for the ‘social forestry’ agenda, recent research was conducted to assess the program’s progress. The research used a range of data collection methods, such as a synthesis of relevant literature, focus group discussions and in-depth interviews, with the data grouped into primary and secondary sources. The data were analysed to identify key themes and connections between issues about the implementation of the HTR program. The research was grounded in the experiences of the HTR program in the villages of Budi Lestari (province of Lampung) and Rumbia (province of Gorontalo). The selection of the research locations was considering two contradictory examples of the HTR program. The situation in Lampung depicted successful HTR implementation, whereas in Gorontalo there was the reported slow progress of the HTR’s development. However, upon visiting both field sites, a list of impediments was recorded with many aspects need to improve. Nevertheless, not all examples of the HTR in Indonesia are problematic, for example, an example of the HTR in Bajuin sub-district (Tanah Laut district, South Kalimantan province) showed better management with full involvement of a banking institution that facilitates ‘soft’ loans, a loan with a low interest rate, that is generally below the normal average interest rate, for the HTR development. In addition, a large state-owned agriculture company acts as a caretaker for the HTR permit holder, that later will buy timber products harvested from HTR area.

The research found several constraints have limited the success of the HTR program. This research found a tension between the state seeking to control and minimize deforestation and on the other hand transferring authority to local communities so they are empowered to manage forest resources to enhance their livelihoods. Also, local institutions are not always in a position to access and interpret credible information about forest management, commercial markets and appropriate business arrangements. Even when management rights are transferred to local institutions, they are not always able to protect the rights of the group’s poor and disadvantaged members. Also, the research found that the HTR’s complicated application procedures and requirements, which are often beyond the capacity of local communities. Also, the government had failed to apprehend and remove forest encroachers undertaking illegal activities in state-owned forests. The regulations for the implementation of the HTR program are not well understood and are generally considered a large burden by many in the local community. One positive impact from the HTR program is that it had provided a mechanism for resolving land-use conflicts by formally granting communities with legal access to forests.
In addition, there are typically many stakeholders involved in the HTR program, particularly at the local and provincial levels, that could be better coordinated. The provincial government agencies could play a major role in coordinating community involvement in the HTR program, such as via the Social Forestry Acceleration Working Group (SFA-WG), a group required by the MoEF to be formed in each province. Another valuable entity in the implementation of the HTR program is the General Service Agency (Badan Layanan Umum or BLU), which is managed by MoEF at central level and it operates at the Forest Management Unit level or HTR permit holders.
1 INTRODUCTION

Governments and other entities in many countries have implemented a social forestry (SF) initiative to increase local communities’ access to timber and other NTFP resources. SF emerged in the late 1970s when concerns about increasing rates of deforestation led to a questioning of centralized state control of forest resources and the capacity of this approach to effectively protect forests and manage them sustainably (Moeliono, Thuy, Bong, Wong, & Brockhaus, 2017), but centralised governance could also become problematic. One of the immediate impacts of centralized forest governance is the loss of local control over forest resources and the reduced role of local institutions in managing forests (Gill, Ross, & Panya, 2009). But transferring forest usage rights to a smallholder group does not always protect the rights of the group’s poor and disadvantaged members (Adhikari, Kingi, & Ganesh, 2014).

Although it can be an effective alternative to solving forest management problems and conflicts (Gilmour, 2016; Purnomo & Anand, 2014), such as those that emerged during the expansion of timber plantations in Indonesia in the 1980s (Obidzinski & Chaudhury, 2009).

‘Community Forestry’ is the term commonly used in Nepal, Mexico, Thailand, Cameroon, South Africa, Uganda, Canada and Togo, while the term ‘Village Forest’ is used in Malawi and Mali. ‘Community-based Forest Management’ and ‘Social Forestry’ are used in the Philippines, whilst both ‘Social Forestry’ and ‘Joint Forest Management’ are used in India (Devkota, 2012). In Nepal, community forestry has evolved into a form known as community-based forest management (CBFM). In the past, the focus of CBFM was the provision of goods such as timber, firewood, food and water for local subsistence, but it has changed to include a focus on providing a wider range of ecosystem services such as climate regulation, flood/erosion control and habitat improvement, all of which have global importance (Paudyal, Baral, Lowell, & Keenan, 2017).

CBFM offers a way in which local enterprises can support sustainable rural growth that both adds to local incomes and builds net wealth at the national level (Devkota, 2012). In some European countries, more than 50 percent of forest land is held by smallholders who have developed a variety of institutional arrangements to interact with markets. By contrast, in some Latin American countries, smallholders at the farm-forest interface tend to operate outside of mainstream markets and are largely ignored by policy-makers and development planners (Gilmour, 2016).

Generally, in many countries, including Indonesia, communities are required to accept a range of responsibilities in exchange for the rights to manage their forests and share in the benefits (Gilmour, 2016). In Indonesia, since the beginning of the reform era and the forest decentralization policy issued in 1998, forest management has changed substantially from a state-based to a community-based management system (Barr et al., 2001; Obidzinski & Barr, 2003). Ample evidence has shown that CBFM has the potential to generate substantial economic benefits for communities and smallholders and at the same time contribute to sustainable forest management goals (Gilmour, 2016). For example, Nepal proves that CBFM can substantially enhance the livelihoods and food security of local farmers (Gilmour, 2016). It is also recognized that community-based forest management could help to improve the welfare of rural communities in Indonesia (Andrasmoro & Nurekawati, 2017). Similar to other tropical countries, CBFM in Indonesia has played a major role in reducing the number of people living in poverty around forest area. This was confirmed by the Center for People and Forests (RECOFTC) through its review of CBFM in 14 countries in Asia and the Pacific, which
concluded that CBFM can make significant contributions to local livelihoods (Obidzinski & Chaudhury, 2009; RECOFTC, 2013).

In Indonesia, its total population was 263 million, around 26.62 million people, or approximately 10 percent of the population, were living in poverty (Statistic Centre Agency, 2017). Approximately 6.8 millions of these poor people live in forests and surrounding areas, and their livelihoods are heavily dependent on forest resources (Suramenggala, 2016). In accordance with the Ministerial Decision No. P.83/2016, SF is defined as a system of sustainable forest management in the area of state forest or customary forest that is carried out by local communities or customary law communities as the main actors to improve their welfare, environmental balance and socio-cultural dynamics. The SF management is divided into several concepts, namely Village Forests (Hutan Desa/HD), Community Based Forest Management (Hutan Kemasyarakatan/HKm), Community Plantation Forest (Hutan Tanaman Rakyat/HTR), Customary Forest (Hutan Adat/HA) and Forestry Partnership (Kemitraan Kehutanan). The HTR program was viewed as a new type of concession for the use of state-owned forest, whereby the forest is allocated to, and managed by, local communities (Noordwijk et al., 2007). The HTR program is also a governmental effort to improve forest management participation and responsibility of local communities living around forest areas, with the management to be based on the principles of production forest management (Hakim, 2009).

In response to growing concerns about the community’s access to forests, in 1999, the Indonesian government has also amended the existing Forestry Law No. 5/1967 to become No. 41/1999 to reallocate forest resource benefits. These policy changes have seen several new forest management schemes to support local community access and rights, namely permits for HKm inside protection forest and production forest; permits for smallholder plantation forests inside production forests (HTR), and opportunities for forest management in the form of village forests and traditional forests (Hindra 2007).

1.1 Hutan Tanaman Rakyat (HTR) initiative

Minister of Environment and Forestry Regulation No. 23/2007 clearly stated to allow permit holders (individual or cooperative) to collect timber from production forests for a period of 60 years in the production forest area. The allowable collection period was later changed to 35 years under the Ministerial Decree No. 83/2016. Further, the allocation of HTR areas, which was decided by the Minister of Environment and Forestry, was targeted at unproductive production forests. The allocated forest areas were also not under the management of other entities and they were primarily located close to processing facilities of the timber industry. Technical constraints in HTR development were weak provision of forest territory and poor institutional strengthening of the participant communities to support their seeking of permits or funding for HTR development (Kartodihardjo, Nugroho, Suharjito, & Dermawan, 2013). In terms of field implementation, the HTR was not as straightforward as expected. Smallholders found it was quite difficult to legally access and develop legal timber resources under an HTR program (Ritabulan, Basuni, Santoso, & Bismark, 2016).

In accordance with the HTR policy implemented by the Ministry of Environment and Forestry, there are three functions of the Ministry in conducting an HTR program, i.e. transfer of knowledge and authority about the forest area's function as a functioning system, transfer of science and technology relating to forest plantation management, and improve community welfare living in the surrounding the plantation forests. The three functions are expected to improve the implementation of HTR.
1.2 Limitations of the HTR

Three types of hindrances were found upon HTR implementation – political, economical and technical constraints. Politically, it seems limited support from the government in HTR development as the location of HTR was generally far away from villages, difficult access to sites, and situated on critical land. While, in other countries, such as Vietnam, state forest areas managed by local communities are located near villages and easy access, whereas remote forest areas are normally managed by large-scale private forest companies with large capital and financial availability (Sharma & Shivakoti, 2017). From an economic aspect, investing in the HTR needs a long period of time until harvesting before villagers could generate income from timber. Local villagers in rural forest areas generally prefer short-term income from agricultural enterprises. From a technical aspect, there was poor institutional strengthening of the participant communities to support their application for permits or funding for HTR development (Kartodihardjo, et al., 2013). In terms of field implementation, the HTR was not as straightforward as expected. Smallholders found it was quite difficult to legally access and develop timber resources under a HTR program (Ritabulan, et al., 2016).

1.3 Objective of the research

The research objective is to investigate constraints to the development of the HTR and the factors influencing its success, to provide recommendations for policies to enhance the HTR’s implementation.

1.4 Research questions

The research was framed by the following questions:

1. What is the extent of the HTR’s implementation in the field?
2. What are the constraints to the development of the HTR and the factors influencing its success?

1 According to the Law No. 37/2014 regarding Soil and Water Conservation, critical land is defined as land that its function is not suitable for land productivity, i.e. tree cultivation and natural regeneration.
2 METHOD

2.1 Case studies

This study used qualitative research methods, utilizing literature review, focus group discussions (FGDs) and face-to-face interviews, and in-depth review of selected case studies, that were grouped into primary and secondary data. The data were analysed using qualitative methods. The strengths of this method is the research can progress step-by-step in several stages (Denzin & Lincoln, 2005), which can be systematically organised to suit the limitations of this project, in terms of time and budget. Using a qualitative method can also provide insights from the data while the analysis is in progress (Richards & Morse, 2007). With several corporations and villages included in this research, we employed a multiple-case study approach because of the varying characteristics of the different locations (Cresswell, 2007).

A case study approach was used in the research because case studies can enhance research credibility by thoroughly triangulating emergent descriptions and interpretations (Stake, 2005). With several corporations and villages included in this research, a multiple case study approach was employed because of the varying characteristics of the different locations (Cresswell, 2007).

Figure 1. The location of Lampung and Gorontalo provinces in Indonesia.

Lampung and Gorontalo provinces were selected as research sites of the study. The first province is located at the western part of Indonesia and the second is at the central northern part of the country. Case studies of this research were conducted in two villages that are HTR permit holders – Budi Lestari village in Lampung and Rumbia village in Gorontalo (Figure 1).

Prior to this research, it was reported that Lampung is one of the few provinces in Indonesia where the HTR is well established and successful. As informed by Herawati et al. (2017),
Lampung province, and particularly Krui sub-district, is a pioneer in the implementation of Social Forestry schemes, including the HTR. In this sub-district, the focus of the HTR has been on the development of *Shorea sp* (dammar). A senior official of the Directorate General of Social Forestry and Environment Partnership also reiterated that Lampung has a long history of Social Forestry, and has experiences of success and failure (personal communication, 2017). Although, there are major constraints in its implementation, many lessons can be learned from the field. Lampung appeared as a relevant location for this research, with much literature available from relevant research conducted in Lampung also available to enrich this research.

In contrast, Rumbia village was selected as a research location because the HTR being developed in the location revealed a slow progress. The only trees available at the areas were planted in 2011 and 2012 during an event of Land and Forest Rehabilitation National Movement, in which central government through its technical office in Gorontalo (Watershed Management Office or DAS Bone Bolango) granted tree seedlings to local communities. However, according to a staff of the DAS Bone Bolango, there was no available budget for planting and maintaining trees, therefore, it was expected that local communities understood the condition and they could voluntarily conduct the planting and maintenance. Evidence was found that seedlings that had been distributed to local farmers through villages and hamlets were abandoned and piled at the village office. Also, the government did not allocate a budget for planting and maintaining, the species were also not in favour of local villagers (Biki et al., 2012). The most challenging issue to manage HTR which is common in Indonesia, was providing understanding to local communities that not only large-scale forestry companies could manage forest, but smallholders could also manage HTR in production forest. For example, a head of Forest Farmer Group at Sungai Jernih village, Muara Tabir sub-district, Tebo district, Jambi province, stated that it was difficult to provide understandings to community members to involve in HTR (Diana, 2017). Despite several hindrances of the HTR implementation, better HTR management was shown in South Kalimantan province (i.e. HTR in Bajuin sub-district, Tanah Laut district). The HTR in Bajuin indicated a better progress with full involvement of a state banking institution that facilitates a soft loan for HTR development, and a large state-owned agricultural company that acts as a care taker for the HTR permit holder that upon harvesting the company will buy timber products from the HTR area (Trio, 2017).

Details of the two case-study villages are provided in the following sections.

**2.1.1 HTR in Budi Lestari Village**

Budi Lestari village is located about two hours drive from Bandar Lampung, the capital of Lampung Province (Figure 2). Budi Lestari Village is included in the area of Gedong Wani Forest Management Unit (FMU), and administratively located in Tanjung Bintang sub-district, South Lampung District, Lampung Province. The previous status of the area was as a ‘production forest’ managed by PT. Darmala Hutan Lestari as the concession holder. In some places where the HTR is situated, particularly along both sides of a main road between Budi Lestari village and the sub-district capital, houses have been constructed and the area has been developed into a residential community. This is why the local community claimed the land was their own property and requested a legal document as proof of this claim.
A senior member of Gedong Wani FMU (2017) raised the issue of people living in the forest area. It was noted this was a result of a government transmigration program and other spontaneous transmigration that began in the 1950s, and that it has affected the project's planting activities. The transmigration has also negatively impacted the forest condition, with severe degradation in some areas. Planting regimes are managed by the local communities and are influenced by the Javanese culture of implementing agroforestry systems. However, monoculture agricultural plantations such as maize, paddy rice and rubber are still found in some places. The research site is flat and located near the gulf of the Sunda Strait. Its infrastructure (i.e. road, bridge) is in a good condition, being made of asphalt. The senior member also reported that officials from the Public Service Agency of the Ministry of Environment and Forestry (BLU) have been in Lampung to promote the beneficial aspects of the BLU to FMU heads, and explained about the opportunity for the HTR permit holders to apply for funding. To support economic development, HTR in Lampung needs to develop NTFPs such as bamboo, lemon grass and banana.
2.1.2 HTR in Rumbia Village

Rumbia village is under the administration of Batumoito sub-district, in Boalemo District (Figure 3). The village is located around 63 km, or a two-hour drive, from Gorontalo, the capital of the province. The Rumbia village HTR has an area of 279 ha. The HTR permit was issued in 2010 and the HTR area is under the management of the Boalemo FMU. In 2010, the Minister provided the Boalemo District with a prepared area of 4.775 ha for HTR, but after a spatial planning review in 2011, the area was reduced by more than half to just 1.926 ha (Head of Forest Management Unit V of Boalemo, 2017).

In 2010, five Forest Farmer Groups (FFGs) proposed to the district head of Boalemo to manage a total area of 521 ha for HTR. Parts of the area (i.e. 279 ha) are under the management of the Harapan Jaya I and Harapan Jaya II FFGs in Rumbia Village. In 2014, few part of HTR area of 279 ha was planted with jabon (*Anthocephalus cadamba*) with the support of the D.G. of Watershed Management and Protected Forest under the National Movement of Forest and Land Rehabilitation Program (*Gerakan Nasional Rehabilitasi Hutan dan Lahan* or *Gerhan*). But they prefer to plant those seedlings in their private land for several reasons. The long distance from the village to the HTR area and hilly topography became constraints to plant seedlings there. Farmers also pessimistic of selling timber from HTR area (state forest areas), because they only know that they can not cut the trees in the state areas. They do not know the difference between protection forest and production forest. While HTR is in production forest area, actually they can manage their trees in HTR area to produce timber then sell it to timber processing industry. This condition shows that farmers have less information about how to manage their land after they get HTR permit.
Data collection procedures

The work is a form of qualitative research, utilizing literature review, FGDs, in-depth interviews and case studies. The approaches were primarily employed to collect data that was gathered during 2017, and analysed by 2018. Anthropological fieldwork was carried out in Budi Lestari Village, South Lampung District (Lampung Province) and in Rumbia Village, Boalemo District (Gorontalo Province), respectively. In 2017, the fieldwork was conducted twice for each research site, with one week duration in each village. Relevant literature was reviewed from scientific journal articles, policy briefs, policies and regulations, books, newspaper and magazine articles, websites, and other sources such as documents of presentations and statistics.

Figure 3. The location of Rumbia village in Boalemo District
To seek perspectives from stakeholders about the HTR policy and its implementation, FGDs were conducted in Jakarta, Lampung and Gorontalo, as well as field-based observation at two research locations in Budi Lestari village, Lampung province and Rumbia village, Gorontalo province. FGDs and face-to-face interviews involved policy-makers (from the central and provincial governments), director and staff from private companies of timber processing businesses, director and staff of several non-government organizations (NGOs), university-based researchers, and members of local communities, derived from both face to face in-depth interviews (n=52) and four FGDs (n=80). The FGDs were conducted once at Jakarta and twice at the provinces of Lampung and Gorontalo, and once at Forest Management Unit of Gedong Wani, South Lampung.

To obtain information about the research locations, including local conditions, major challenges and influencing factors to develop HTR, a day FGD was conducted in Jakarta at the end of January 2016. 30 persons were invited and attended the FGD, including policy-makers and senior staff of the Ministry of Environment and Forestry in Jakarta, the head of the provincial forestry office of Lampung, the head of the district office of Bulukumba, Working Group of Social Forestry Acceleration of Lampung, universities, NGOs, forestry company association, private forestry companies, and cooperatives managing successful HTR of Krui, Lampung. The attendees were mostly men aged in their 40s and 50s, with only about 10 percent being women. Under the title of "12.7 ha community forestry area: realistic or ambitious?", the FGD provided much information that was picturing the research locations, including policies, problems and efforts that have been done to improve community forestry in general. However, major information delivered in the FGD was about social forestry implementation in Lampung. There was still limitation on data and information on social forestry available in Gorontalo.

The data collecting was organised by interviewing members of local communities holding HTR permits (n=15), policy-makers at central and local governments (n=18), staff of private companies (n=8), staff of NGOs (n=6), and researchers at universities (n=5). The interviewees were selected by means of snowball sampling. The key persons were being interviewed, flowing from the information of the previous interview about who are very related to HTR implementation in Lampung and Gorontalo provinces. Then we put them as prior interviewee to collect data and information about the implementation of HTR on both sites specifically. Prior to interviewing members of the local communities, field observations were conducted to explore the location of the HTR area, the plantation conditions, accessibility, potential markets, modes of transportation for timber haulage, and the local HTR administrative procedures. Stakeholders from NGO and Universities were interviewed to explore how far the implementation of HTR and the progress of community assistance. Exploring data and information from private companies were conducted to find out the raw materials needed for the timber industry, and also the constraints and possibilities to link-up smallholder to industry.

Case studies approach was also used in this research that employed a theoretical framework at the beginning of an investigation. Framing a theoretical background for a case study is necessary to develop research questions, analysis, and interpretation of findings (Yin, 2008). Case study research is similar to ethnography, in that it explores the meaning of certain elements, such as behaviour, language, and the interaction of the members of a selected group (Cresswell, 2007).
The case study method usually seeks what is common and what is particular about the case, but the end product of the research regularly focuses on those facts that are more uncommon. The following elements are embedded in the case study (Stake, 2005):

- The nature of the case, particularly its activity and functioning;
- Its historical background;
- Its physical setting;
- Other contexts, such as political, economic, technical and cultural;
- Other cases through which this case is recognised; and
- The informants through whom the case can be known.

2.3 Data analysis

Anthropological fieldwork was carried out in Budi Lestari and Rumbia villages at South Lampung (Lampung Province) and Boalemo (Gorontalo Province), respectively. The fieldwork was conducted in 2017, with a week of data collection in each location. During these periods, in-depth semi-structured and open-ended interviews were conducted with local farmers involved in HTR and senior officials working at the provincial and district governments, including in the offices of forestry, planning, industry, trade, the district investment board, and the Technical Service Unit (Unit Pelayanan Teknis or UPT) under the Directorate General of Watershed Management of the Ministry of Environment and Forestry.

Descriptive and thematic content analyses were used to analyse the data. The application of thematic content analysis identified interrelated themes and patterns for further analysis. This form of analysis was thus helpful in identifying and analysing common issues that emerged from the interviews. The themes were grouped into positive or negative opinions. These opinions were further investigated and discussed to address each research question in detail. Thematic analysis is seen as a foundational method for qualitative analysis (Braun & Clarke, 2006). One of the benefits of thematic analysis is its flexibility, being a method that is essentially independent of theory and epistemology (Aronson, 1994; Braun & Clarke, 2006; Roulston, 2001). Through its theoretical freedom, it provides a flexible and useful research tool that can potentially provide rich and detailed, yet complex, insights.

Another strength of qualitative data analysis is that it can enable the research to progress in a step-by-step manner (Denzin & Lincoln, 2005). Using a qualitative method can also provide insights from the data while the analysis is in progress (Richards & Morse, 2007). An advantage of this can be the creation and development of theories (Ridder, Hoon, & Balluch, 2014). The research would also provide input for policy makers to enhance HTR implementation, although the policy community rarely sought policies from researchers, instead research would be commissioned to confirm a preferred policy option (Silverman, 2016).
3 RESEARCH RESULTS

3.1 A Conceptual Framework of the HTR

During the fieldwork, a variety of perspectives on the HTR program were expressed by the key informants. These perspectives are discussed in the following sections, under the following HTR stakeholder categories: individuals in central government, provincial government, Social Forestry Acceleration Working Group, district government, Forest Management Unit, extension officers, leaders and members of FFGs or cooperatives, BLU, and private companies (timber processing industries).

Figure 4. A conceptual framework for the HTR, showing the many stakeholders involved
With the numerous stakeholders involved in the HTR program (Figure 4), there is a need for better stakeholder coordination. Provincial government offices could take the major role in coordinating community involvement in HTR program development. The colored blocks in Figure 4 indicate the stakeholders that are expected to be the most dominant in HTR management in the future. The BLU was regarded as an important stakeholder because the institution could provide financing to build HTR programs, and it needs specific requirements that should be strongly supported by the SFWGA. With its membership base including representatives from NGOs and universities, senior government officials of related institutions, and respected persons with strong interests in HTR, the SFAWG could monitor, assist and guide HTR development at the field level. Also, most government officials were preoccupied with other tasks to effectively do these tasks themselves.

Figure 4 also shows that central government policy-makers require support from the provincial governments for field-level HTR implementation with Governors acting as coordinators with full support from the Technical Implementing Units (offices of central government at the provinces) and the SFAWG. This can help ensure there will be sufficient financial resources for HTR implementation. Financing HTR development is also a challenge, and the BLU is one potential option. In addition, an HTR permit holder could possibly develop a partnership with a large-scale private company. The company is often willing to contribute funding for plantation establishment and maintenance. With sufficient funding, the HTR permit holder could potentially produce qualified timber that could be supplied to the large scale company.

Inadequate budgets and limited management capacity of human resources were identified as key challenges for SF development including HTR in research conducted in Krui, another sub-district of Lampung (Herawati, Liswanti, Banjade, & Mwangi, 2017). Revealing some drawbacks, however, the government has revised its policy, particularly to offer revised contract periods with local communities which was considered an effective local incentive for sustainable management (Noordwijk, et al., 2007).

Even though previously, the Indonesian forest sector has entrenched the government control of land and forest resources and developed policies and regulations that have favored the interests of large companies (Brown, 1998; Siscawati et al., 2017). It was assumed large-scale processing businesses with ample capital and large turnover of products with a high export value were the types of business that could contribute the most to state revenue. However, until now this view has been framed by many small-scale forestry companies, including one processing business in Lampung, as expressed by its owner:

"... the government does not fully support the operation of a small-sized wood processing industry like us. We need simpler and easier regulations, we are also begging the government to provide an incentive in the procurement of production machinery because we are not able to compete with imported products that are cheaper, especially from China".

This company seems to have limited information about the incentives proposed by the government. For example, according to a statement delivered by a senior government official during a FGD (3rd May 2018), the government has provided incentives for small-scale timber processing businesses in the form of equipment and other facilities and that these incentives can be accessed through a FMU. Such small-scale businesses will therefore need to build partnerships with FMUs.

It was also reported the 12.7 million ha of state forest allocated by the Government of Indonesia is the only opportunity for communities to legally access the forest areas since 1971 (Director
The granted access needs to be reviewed every 6 months. The DG further stated that bureaucratic reform needs to be initiated by the Ministry of Environment and Forestry since SF is closely related to ‘permits’. Learning from the statement, SF including HTR involves several institutions within the Ministry, and as such a HTR permit is not only processed by a single authority. The institutions involved include DG of SFEP, DG of Forestry Planning, the Technical Implementing Unit of the DGs in the provinces, and the Provincial Forestry Offices.

Further, the high official of the MoEF expressed the concern that developing community institutions was still difficult due to limited human resource capacity. To solve this problem, the Provincial Government of Gorontalo developed a close cooperation with international NGOs, such as Birdlife, the World Resources Institute and others to seek their assistance in guiding local communities in HTR management. Another problem was the low level of interest by communities to participate in HTR, including the local government, such as district head and local government planning agency, as well as members of peoples’ representative in Gorontalo (based on an interview conducted on 16 February 2017).

### 3.2 Key problems of HTR implementation

Information gathered through a literature review, FGDs and a series of interviews at the central, provincial and local levels suggests there are several key constraints for the implementation of the HTR. These impediments include:

1. HTR has not yet contributed to improvements in community capacity, but it has provided a solution for land-use conflicts. The SF program is just a means of granting communities with legal access to forest areas.
2. HTR has complicated application procedures and requirements, which are often beyond the capacity of local communities. In contrast, the Government allows forest encroachers to freely undertake their illegal activities in state-owned forests. Regulation on implementation procedure about HTR is still considered burdensome.
3. HTR policy has not yet attempted to address issues related to characteristics of local resources, and efficiency of entrepreneurship.
4. Local communities have a limited understanding of HTR. For example, communities still believe that permits for HTR areas could be inherited by their children and grandchildren.

#### 3.2.1 Evolvement of HTR regulations

The legal basis for HTR started in 2007 with the issuance of Government Regulation No. 6/2007 about Forestry Management Planning, in which HTR permit was given by the Government for the period of maximum 100 years. Under the Regulation, the permit needs to be evaluated by the Minister every 5 years. At the same year, the Minister issued a regulation requiring the duration of HTR permit was reduced to 60 years. One year after the enactment of the

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2 Previously, local communities have long accessed the state forest area illegally by occupying the area with agricultural plantation, horticultural products, and residential areas.
Government Regulation No. 6/2007, it was revised with the Government Regulation No. 3/2008, which confirmed the duration of HTR permit for the period of 60 years, and subject to one time extension for another 35 years. The permit is required to be evaluated for 5 years. Requirement for obtaining a loan from the government was available and also regulated under the Minister of Forestry Regulation No. P.9/Menhut-II/2008. The updated regulation concerning HTR is detailed in the Ministerial Regulation No. 83/2016. The table 1 below presents the evolving regulations about HTR, showing a concern of the government to improve HTR development.
### Table 1. Evolving regulations related to HTR

<table>
<thead>
<tr>
<th>YEAR</th>
<th>REGULATION</th>
<th>CONCERNING</th>
<th>INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Government Regulation No. 6/2007</td>
<td>Forestry Management Planning</td>
<td>HTR permit was granted for the maximum of 100 years, and needs to be evaluated by the Minister every 5 years</td>
</tr>
<tr>
<td>2007</td>
<td>Minister of Forestry Regulation No. P.23/Menhut-II/2007</td>
<td>Procedure of HTR permit application</td>
<td>HTR permit was granted for the maximum of 60 years, but there was no information about evaluation process</td>
</tr>
<tr>
<td>2008</td>
<td>Government Regulation No. 3/2008</td>
<td>The revision of Government Regulation No. 6/2007</td>
<td>HTR permit was given for the period of 60 years and could be extended once for the period of 35 years.</td>
</tr>
<tr>
<td>2008</td>
<td>Minister of Forestry Regulation No. P.62/Menhut-II/2008</td>
<td>Working plan for Industrial Timber Plantation (HTI) and HTR</td>
<td>The HTR permit was still granted for the maximum of 60 years, but the Working Plan for HTR management needs to be prepared every 10 years. Evaluation was still managed every 5 years.</td>
</tr>
<tr>
<td>2008</td>
<td>Minister of Forestry Regulation No. P.9/Menhut-II/2008</td>
<td>Requirements for an FFG to obtain a loan for HTR development</td>
<td>Potential financial resources for HTR development (from Reboisisation Fund managed by the Ministry of Forestry).</td>
</tr>
<tr>
<td>2009</td>
<td>Minister of Forestry Regulation No. P.7/Menhut-II/2009</td>
<td>Guidelines to meet raw material supplies for local timber processing industries</td>
<td>One of timber supplies produced at local forest areas was from HTR</td>
</tr>
<tr>
<td>2009</td>
<td>Minister of Forestry Regulation No. P.64/Menhut-II/2009</td>
<td>Standard cost for Industrial Timber Plantation (HTI) and HTR development</td>
<td>The approximate lowest cost for HTR development is Rp. 9 million, the highest cost is Rp. 12 million</td>
</tr>
<tr>
<td>2011</td>
<td>Minister of Forestry Regulation No. P.55/Menhut-II/2011</td>
<td>Application procedure for HTR permit</td>
<td>As explained in figure 5, it also mentions about 3 patterns of HTR, i.e. independent, partnership and developer.</td>
</tr>
</tbody>
</table>
| 2012 | Minister of Forestry Regulation No. P.3/Menhut-II/2012 | Working plan for HTR | - Guidelines for 10 year and one year working plan  
<p>| 2012 | Minister of Forestry Regulation No. P.36/2012 | Procedure of distributing and returning of revolving fund for forest and land rehabilitation. | Detailed requirements to obtain revolving fund. |
| 2013 | Minister of Forestry Regulation | Revision of P.55/Menhut-II/2011 | Inserting a sub-article about a proposed map for |</p>
<table>
<thead>
<tr>
<th>YEAR</th>
<th>REGULATION</th>
<th>CONCERNING</th>
<th>INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Minister of Forestry Regulation No. P.19/Menhut-II/2014</td>
<td>Procedure about designation on indicative map for HTR at the areas that have not been given forest management permit.</td>
<td>HTR should not include buffer zone area.</td>
</tr>
<tr>
<td>2014</td>
<td>Ministerial Regulation No. P.23/2014</td>
<td>The revision of the Government Regulation No. P.36/2012 about procedure of distributing and returning of revolving fund for forest and land rehabilitation.</td>
<td>The revision is mainly about the contents of several articles, including an additional statement about <em>force majeur</em> (unavoidable circumstances). Such a case, the government could opt an alternative action to keep HTR being implemented</td>
</tr>
<tr>
<td>2016</td>
<td>Minister of Environment and Forestry Regulation No. P.83/MENLHK/SETJEN/KUM.1/10/2016</td>
<td>Social Forestry</td>
<td>HTR permit is granted for 35 years, and needs to be evaluated every 5 years.</td>
</tr>
</tbody>
</table>
3.3 HTR implementation in the two villages

3.3.1 Budi Lestari Village

Budi Lestari village is administered under the sub-district of Tanjung Bintang, Lampung Selatan District. Initially, Budi Lestari village was a part of Jatibaru village, before becoming an independent village in 1986. Consisting of three hamlets – Lestari, Karang Jaya and Sraten – the village had a total of 664 households and 2,900 residents in 2016. In the local language, *Budi* means a good or respected manner, while *lestari* means everlasting or sustainable. The village name therefore refers to a respected manner that should be maintained and sustained. The village covers an area of approximately 1,396 ha and is located 46 km (approximately 90 minutes travel) from the District capital of Lampung Selatan.

Budi Lestari village contains about 800 ha of agricultural land, which includes wet rice fields (57 ha) and dry agricultural crops (749 ha), and the remaining area of 244 ha is covered by forest trees (such as sengon, teak and mahogany), non-timber forest products (such as bamboo), rubber trees. The residential area covers about 346 ha. By 2016, the village had grown to 1,124 households and 3,898 residents. The number of male residents (1,990) is slightly higher than the female residents (1,908). The residents’ livelihoods are predominantly supported by farming (619 individuals), followed by other agricultural labouring (115 individuals). Traders and livestock breeders are reported to number only 25 and 23 individuals, respectively. The number of productive individuals aged from 18 – 50 years was 2,150. Therefore, individuals who have jobs as farmers have the potential to manage HTR programs, regardless of whether they are male or female.

The agricultural land was dominated by rubber tree plantations (143 ha), which are common in rural areas of Indonesia. The second most commonly planted crops were cassava (117 ha) and maize (75 ha). Many local people practiced aquaculture (15,000 fish) and raised chickens (14,200 chickens), while far less were raising cattle (521 cattle). There was reported to be 16 farmer groups, and there was also one united forest farmer group available in the village. The village has a stated vision of “promoting Budi Lestari as a safe peaceful place to stay, improve local farmers’ welfare to support sustainable development”.

The village contains natural resources such as bare land, river, rice field using rain water, estate crops. Many of these resources have not been optimally managed, and with improved management have the potential to contribute to community economic development. Other community resources and infrastructure include tractors, paddy and coffee mills, livestock, and fish ponds. However, there were still problems being faced by the villagers including limited capital for investments and a lack of skills training opportunities. The village has potential natural resources but they have not been developed yet.

The Tani Maju united forest farmer group is the HTR permit holder in Budi Lestari village, consisting of members of local farmers who were originally from Central Java. Most came to Lampung as self-financed migrants in the late 1970s, although some arrived in the 1990s. To manage the areas that were formerly forestland, the migrants formed a group led by an experienced and influential farmer. Upon clearing the forest area, the group leader informed each household that they were obliged to manage an area of approximately 2.25 ha. If a household would like to sell the land, the transaction object was not the land itself but the total
management costs the farmer had incurred, which was verified and formalised in a legal document by a village head. The transaction did not recognise a land ownership certificate as a common legal document as occurs today. The farmers were therefore eager to manage the land under their own possessory rights, which were legalised by the government.

3.3.2 Rumbia Village

There are several cooperatives and individuals that have received SF management permits, including for HTR. In Rumbia Village, there are 20 individual HTR permit holders consist of total 90 farmers, each HTR permit holder represents several farmers with accumulated area not more than 15 ha. In 2012 the HTR permits in Rumbia Village are issued through the District head’s decision No. 218-237/2012. This is different from the HTR permit issuance in Budi Lestari Village, which is issued through a Ministerial Decision in 2017 with total area 1,637 ha. Based on Forestry Minister Regulation No. P.55/Menhut-II/2011, the maximum area for individual HTR permit holders is 15 ha, while for cooperative the maximum area is 700 ha. While based on the Director General of Social Forestry and Environmental Partnership Regulation No. P.13/PSKL/SET/PSL.0/11/2016 the area of HTR permit for forest farmers is a maximum of 15 ha and for united forest farmer groups or Gapoktan the maximum area is 15 has per member and for forest farmer cooperative maximum 5,000 ha. However, there has not yet been any plantation development in the village.

The HTR area in Rumbia village is in a hilly location with difficult access, meaning there has been little control and monitoring of the site by both the government officer responsible for the village program and by the central government. Even the head of the local FFG seldom visits the HTR area. As mentioned in a previous Ministerial Regulation (i.e. No. 55/2011\textsuperscript{3}), the access to HTR areas should not be difficult. But this is not the case with the Rumbia village HTR site, which is located in a remote area.

To accelerate the HTR permit process, the Boalemo District head formed an HTR permit acceleration team through issuing Decision No. 134 of 2012. The permit acceleration team consists of the Forestry District Office Head, heads of related working units of the district government (\textit{Satuan Kerja Perangkat Daerah} or SKPD) and the Extension and Food Security Implementing Agency, and heads of the sub-districts and of villages in which plans for HTR implementation were being prepared.

Further, senior staff of the Boalemo FMU also organized an awareness-raising campaign for farmers who were interested in applying for HTR permits. Facilitated by the Jakarta-based DG of Forest Management, the Gorontalo Technical Forestry Office for Monitoring Production Forest Management, and the Provincial Forestry Office, the awareness-raising efforts were conducted at the district, sub-district and village levels.

The Harapan Jaya I and Harapan Jaya II FFGs are the HTR permit holders in Rumbia village, with each of these FFGs consisting of 10 members. Extension officers with the Boalemo FMU have intensively promoted HTR and guided farmers on how to develop partnerships with other HTR stakeholders and to develop loan applications. The FFG heads have participated in several training sessions conducted by the Ministry of Forestry in Jakarta and Gorontalo to

\textsuperscript{3} The Ministerial Regulation No. 55/2011 is no longer active and is replaced by the Ministerial Regulation No. 83/2016 about Social Forestry.
improve their group’s capacity to manage HTR programs. However, the field-work revealed the HTR site was not being properly maintained and the farmers were instead concentrating on managing their own land. During the two visits to Rumbia, the farmers were always more interested in showcasing the stands of jabon trees and other agricultural crops growing on their private land than showing the researchers the HTR site.

The significant changes of SF was the issuance of Local Government Law 2014, that forest authority has been returned to the central government, including the issuing of permits for local communities to manage state-owned forest under CBCF. As a subsequent legislation, in 2016, the government enacted Social Forestry Ministerial Regulation No. 83/2016 which specifies that HTR permits can be granted for production forest areas where there are no concessionaires already managing the area. Under the Ministerial Regulation, the HTR management period is 35 years, with a review every 5 years. The permit could be extended based on the evaluation result. In addition, HTR permits may also be granted for a specific area managed by an FMU. The Minister has the sole authority to grant HTR permits. However, the Governor, on behalf of the Minister may grant the permit but only if specific requirements have been fulfilled, including the province has incorporated social forestry into its medium-term development plan, or the province’s Governor has issued a SF regulation and there is an allocated budget to implement the program (Anggaran Pendapatan dan Belanja Daerah or APBD).

Below is the illustration of delegating permit issuance process from the Minister to a Governor:

![Figure 5. Delegating the granting of HTR permits from the Minister to a Governor.](image-url)

Under the Ministerial Regulation on Social Forestry No. 83/2016, five specific entities are identified as potential HTR permit holders. These are individual forest farmers, individual FFGs,
united FFGs, forest farmer cooperatives, and individuals with forestry or other relevant knowledge and/or experience as a farmer guide or field-based forestry extension where they have worked to develop a local community-based farmer group or cooperative. Under HTR programs, Timber Forest Product permits are granted for areas that have been designated for social forestry or Social Forestry Area Indicative Map (Peta Indikatif Areal Perhutanan Sosial, PIAPS). The PIAPS is a map of Indonesia that identifies all the country’s state-owned forest areas that are reserved for the development of social forestry initiatives (the last version of PIAPS can be accessed from www.webgis.dephut.go.id).

Two categories of land suited to potential HTR programs, i.e. (1) Production Forest not yet subject to a HTR permit, and (2) certain areas within a FMU. However, HTR permits could be granted for areas outside the PIAPS mapping as long as the permit is specifically applied by local communities and assisted by Social Forestry Acceleration Working Group (SFA-WG) (Ministry of Environment and Forestry, 2016). The role of SFAWG responsibility is to guide the pre and post granting HTR permits. Started in early 2018, the WG received a budget from the government to conduct various activities, such as coordinating related institutions in the province to accelerate the implementation of the HTR and provide forest management guidance to farmers holding HTR permits.

If proposing an HTR project in areas outside the PIAPS mapping, priority is given to activities seeking to resolve conflict and restore peatlands and/or other ecosystems. Figure 6 provides an illustration of the specific areas that could be granted a HTR permit.

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Figure 6. Areas identified for HTR (PIAPS)

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4 The difference between united FFGs and forest farmer cooperative is the establishment of united FFGs based on informal consensus, while a forest farmer cooperative is built as a formal organization with a legal establishment document issued by the Ministry of Cooperative and Small and Medium Enterprises at the District level with required documents such as financial arrangements and organization arrangements.
Table 2 outlines characteristics of the implementation of HTR initiatives at both Budi Lestari and Rumbia villages. In Rumbia, HTR program was established in 2012 and the Budi Lestari program in 2017. Slow progress was being made at the two locations and only one extension officer was available at each location. The Rumbia extension officer’s area of coverage was the entire Boalemo District, while the Budi Lestari extension officer’s area of coverage was the sub-district (i.e. six villages in Tanjung Bintang). In Rumbia village, agricultural production was dominated by three commodities – maize, coconut and aren (*Arenga piñana*). These products are the main income source for the local people.

Several constraints to the development of HTR in each village, as noted by the interviewees, are also presented in Table 2. This is in line with Banuwa et al (2018) which states that the weaknesses of the implementation of HTR in five villages holding HTR permits at Gedong Wani FMU (including Budi Lestari Village) are lack of assistants, less optimal farmer group institutions, and a lack of public understanding of rights and obligations as HTR permit holders.

Local communities holding HTR permits in Budi Lestari villages stated that they were grateful for the permit. HTR licenses give them legal access to manage their forests, their homes so far, because Budi Lestari Village is located within a state forest area. With the issuance of these permits through Minister of Environment and Forestry Decision No. SK.224/MENLHK-PSKL/PSL.0/1/2017 makes them not afraid to carry out land management activities in the HTR area. Novayanti et al (2017), stated that the level of public perception in Budi Lestari Village on the benefits of access to legal forest management through HTR permits from 95 respondents, 15.8 percent were high and 84.2 percent were moderate.

### Table 2. Characteristics of the HTR programs at both research sites

<table>
<thead>
<tr>
<th><strong>HTR characteristics</strong></th>
<th>Budi Lestari village</th>
<th>Rumbia village</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established</td>
<td>2017</td>
<td>2012</td>
</tr>
<tr>
<td>HTR legal issuance</td>
<td>Ministerial decision No. 224/MENLHK-PSKL/PSL.0/1/2017</td>
<td>District head’s decision No. 218-237/2012</td>
</tr>
<tr>
<td>FFGs</td>
<td>FFG Sumber Karya, Budi Luhur, Budi Karya, Karya Makmur, Budi Utomo, Budi Jaya 1, Budi Jaya 2, Karya Jaya 1, Karya Jaya 2, Purwosari, Asri Mandiri, Budi Makmur, Podo Moro</td>
<td>- FFG Harapan Jaya I  - FFG Harapan Jaya II</td>
</tr>
<tr>
<td>HTR permit holders</td>
<td>United FFGs Tani Maju</td>
<td>Two FFGs involve 90 farmers</td>
</tr>
<tr>
<td>HTR area</td>
<td>1,637 ha</td>
<td>279.21 ha</td>
</tr>
<tr>
<td>Members</td>
<td>Transmigrants from Central Java in 1950s, the late 1970s and in the 1990s</td>
<td>Originated from the local area</td>
</tr>
<tr>
<td>Extension officer</td>
<td>1 for 6 villages in Tanjung Bintang Sub District</td>
<td>1 for all villages within Boalemo District</td>
</tr>
<tr>
<td>Topography</td>
<td>Flat, lowland area</td>
<td>Hilly</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Easy, good road condition</td>
<td>Difficult, far from village (it is only accessible by foot)</td>
</tr>
<tr>
<td>Dominant commodity</td>
<td>Rubber, cassava</td>
<td>Maize, coconut, aren (<em>Arenga piñana</em>)</td>
</tr>
</tbody>
</table>
| Farmers’ interest to plant timber species in HTR area | - Medium  - HTR area already planted prior to the issuance of HTR permit, and no | - Low  - Prefer to plant trees on their own land  - HTR area mostly maize, bushes,
<table>
<thead>
<tr>
<th>HTR characteristics</th>
<th>Budi Lestari village</th>
<th>Rumbia village</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constraints</td>
<td>Lack of local institutional capacity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limited guidance for managing HTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimal access to capital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limited access to markets (dependent on middlemen)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limited knowledge of HTR policy/regulations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of local institutional capacity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Problems with seedling supply and transportation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limited guidance for managing HTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of access to capital and markets (industries are located too far away)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limited knowledge of HTR policy/regulations</td>
<td></td>
</tr>
</tbody>
</table>

3.4 Perspectives of stakeholders about the HTR

3.4.1 Provincial government

Many associated problems about the HTR were revealed during FGDs and interviews at the provincial level. An important issue discussed was farmers require technical guidance to help them become more innovative in terms of furniture products and other timber products development. Product diversification, including the development of products derived from timber waste (e.g. small baskets, souvenirs), should also be promoted (an interview with senior official of Provincial Industry Office, 7 November 2017). Whereas, associated problems identified including the limited number of extension officers, a lack of community understanding of HTR, a lack of market information, complicated procedures for the transportation of harvested timber, a lack of human resource capacity, a lack of guidance from the government, universities, NGOs, and/or agency extension officers, limited access to finance, unsustainable seedling grant from the government, and HTR locations being remote, steep and difficult to access Farmers were finally planted the seedlings in their own land which is near their houses and easy to maintain.

3.4.2 Forest Management Unit (FMU)

An FMU is a field-based government office that manages forest areas within a district, but FMUs are administered by provincial governments. A senior member of the Boalemo FMU in Gorontalo expressed their interest in improving the competitiveness of forest products. To achieve this, they advised that farmers should have good knowledge of the local timber markets before they plant trees. Farmers also need intensive and continuous guidance to strengthen timber business management knowledge and skills. Receiving guidance from respected persons is important in influencing FFGs and their members, because local people commonly trust and follow the actions and recommendations of respected persons.

The senior staff of the FMU also commented that the needs to raise interest is an important part of developing HTR, as referred to the following expression “… it needs a long time for trees to grow until they can be harvested, which made people not interested in planting timber species….”. It is therefore believed that agroforestry systems using a variety of timber species mixed between agricultural crops would be the most appealing option for farmers. Crops that could be integrated with tree plantings include kajuput oil (*Melaleuca leucadendra*) plantations,
nilam (*Pogostemon cablin*) and maize. Changing organisations within the Ministry of Environment and Forestry has also been a hindrance to HTR implementation. For example, in Boalemo a HTR permit was granted in 2012 but there has been no forestry activity because the HTR program was previously under the responsibility of the DG of Production Forest Management before being transferred to the DG of Social Forestry. Both DGs have their offices in the provinces, and it appears the TIU under the DG of Production Forest Management has had its powers revoked and there is no longer a budget to support SF. Local communities also need business certainty as without this they will lack the confidence to manage their forests. Community members also commonly fear that the government will resume their land in the future.

Further, the senior staff of the FMU was stating that many community members are also unwilling to obtain loans from banking institutions, as they prefer to self-finance their investments because this is considered more secure. Large companies need to provide a mentoring role for farming communities to help them develop business based on forest products. There is a particular need to guide the farmers on financial management and forestry technical skills including tree planting and maintenance.

### 3.4.3 Extension Officers

Interviews with extension officers in both Gorontalo and Lampung revealed that the main problem for developing HTR programs in the villages was the limited understanding of HTR among the local farmers. To solve this problem, the extension officers believed there was a need for intensive and continuous awareness raising and guidance to better inform the farmers about various technical and non-technical aspects of HTR. However, the officers also stated the limited number of the extension staff created another problem. One officer was responsible for many farmers living in several villages which substantially reduced the level of support they could provide to each village.

### 3.4.4 Leaders and members of Forest Farmer Groups (FFGs)

In Budi Lestari, it was revealed that the villagers had little knowledge of HTR programs. They assumed that by holding HTR permits, they could legally possess state-owned land, as they required a legal proof of possessory rights to manage state-owned forests. Farmers were often unsure about the price they could receive for their harvested timber. Upon harvesting their trees, farmers were often annoyed by brokers. After receiving the HTR permit, local community members were no longer afraid of government officers who previously harassed them for illegally staying in state-owned forest areas. Another problem identified in the interviews was that besides holding the HTR permit, around 50 percent of the Budi Lestari villagers worked as infrastructure labourers, meaning they did not have the time to properly maintain the HTR site.

There was an abundance of rubber trees available in the village for use as raw materials for local timber processing businesses. For example, one local farmer with an area of 1.25 ha has been planted with rubber trees. On this farmer's land, the sap of 700 rubber trees has been tapped since 2001. The land also contains 300 three year old acacia trees (DBH = 15 cm), 20 waru trees (*Hibiscus tiliaceus*) and 200 coffee trees which are very popular in the local area. The coffee seedlings were obtained from natural regeneration.
Farmers in Budi Lestari village had a limited understanding of HTR programs, and there was little involvement in the village HTR program among farmers in the local communities. An expectation of the local farmers was that they should be granted land certificates following issuance of the HTR permit, as expressed by one community member: “....if possible under the HTR, we could have a land certificate...”. This statement also indicated that the local farmers had limited information and understanding about the HTR. Once the HTR permit was granted, the local farmers incorrectly assumed that they would legally own the land and this would be acknowledged by the government.

In Lampung Province, the priorities of the provincial government are focused on the development of community infrastructure such as roads and bridges, and education and health facilities. This prioritisation is consistent with the program set by the central government. It was believed that infrastructure development could provide multiple positive impacts to improve economic development throughout the province. In its short-term planning, the provincial government has promoted local economic development to reduce poverty. The development of HTR could help the provincial government achieve this goal. The development of HTR is expected to meet the raw material requirements for timber supply for industries in the district and province. The role of the government in supporting the development of program sustainability can be through assistance and support to provide certainty of market access to farmers by market farmers timber from the HTR area, and as expressed by a retired senior staff from the provincial forestry office said: “... helping farmers to improve their life from timber should not be in the form of money, but it was more useful if local government helps them market their timber products...”.

In Rumbia, the farmers tended to not utilise the HTR area due to the site’s access difficulties (i.e. hilly location and slippery access track). However, the government has already provided jabon seedlings for the farmers to grow, but there has been a lack of maintenance of these plantings which are now surrounded by wild grass. The remoteness of the HTR area was also confirmed by a local farmer, who declared: “...... the HTR area was located on the hill, which was rocky and slippery, and could not be accessed by motorcycle5, ... we had no transporation budget to bring the seedlings up the hill to the HTR land, that’s why we planted the seedlings in our privately-owned land....”. Due to the transportation issue, very few seedlings were eventually transported up to the HTR area. Since the FFG has received the HTR permit, no government officer has visited the area, which means there has been no field monitoring and evaluation of the local program.

3.4.5 Private Companies

3.4.5.1. Forestry company association

A representative of the Association of Forest Concession Holders revealed that their raw material supply was mostly sourced from large concession holders managing industrial-scale forest plantations. The Association’s government-issued timber quota in 2015 was 11 million m³ per year, but only around 5 million m³ was accessed. The reasons for the undersupply were

5 Motorcycles are commonly used by farmers to access their privately-owned land due to the prevalence of narrow and muddy roads that are often steep and sometimes cross through rivers.
market- and policy-related. The Association accesses timber for furniture and pulp. Annual pulpwood production is around 35 million m$^3$, which is harvested from a total plantation area of about 3 million ha.

An interview with a former official of the Forest Concession Holder Association (APHI) revealed that leadership or encouraging “good drivers” or good leaders is a key factor that needs to be addressed to advance HTR development. Currently, everyone would like to be a passenger or passive members, who do not need to be active to seek or promote HTR-related information, who can be passive and avoid risks. No one wants to be the driver or leader or motivator of an HTR project. If one was acting as a driver, he or she would have to deal with the various characteristics and backgrounds of the passengers, which can be difficult. Drivers require strong leadership and communication skills to effectively manage the diversity inherent among different stakeholders.

Figure 7. Jabon planted on private land (Rumbia, Gorontalo) due to the easier access than the village’s HTR area
The government has been attempting to reduce competition between forestry small-scale and large-scale companies, but to do this it needs a policy that could accelerate implementation of the HTR program. For example, a key issue relates to markets for harvested timber, and particularly whether the timber could be sold into the free market. The harvested timber is currently undervalued because of the government’s 1983 banning of log exports, which made abundant supply in the country.

The timber market has also changed. Previously, the timber price, production, markets and raw material supply were all controlled by a collaborating agency or association. Currently, there are many individual businesses involved in the international timber market. In international negotiations, the businesses use a group or association. The associations developed communications and negotiations about the international timber trade. In 1997, a Letter of Intent was signed by the government and the International Monetary Fund (IMF), requiring associations to be annulled or to cease their operations. Different to Indonesia, Malaysia was using a value chain strategy. The strategy set by Indonesia was that furniture and sawn wood were to be produced in the country as a means of value-adding to harvested timbers.

3.4.5.2. A medium-scale timber processing business in Lampung

PT Karya Prima Sentosa Abadi (KPSA) started its business by operating a sawmill. Since 2014, it has produced plywood with a production capacity of 6,000 m³ per year or 500 m³ per month. Raw material is often sourced from local community lands and State-Owned Agriculture Enterprises or PTPN. The timber harvested from local community lands is brought to the factory through timber suppliers or middlemen. The middlemen liaise between the farmers and the
company. The company’s products that have been certified include sawn timber, finger joints, veneer, moulding, and laminated boards. These products are mostly made from rubber and sengon trees (Albizia falcata) and account for about 70 percent of supply, while jabon (Neolamarckia cadamba), mango (Mangifera indica) and durian (Durio zibethinus) comprise the remaining 30 percent.

Potential markets for KPSA’s products exist on Sumatra island, except for North Sumatra and Aceh. The company’s profit margin for its entire production is only about 7 percent. The price the company pays for the sengon timber was found to be more expensive compared to the prices paid in Java. Sengon timber products in Lampung are usually used for infrastructure (roads and home construction), while Javanese sengon is used for furniture, which makes it more valuable.

The price for rubber timber was Rp 340,000 (Au$ 34) per tonne, while the price for sengon was Rp. 700,000 (Au$ 70) per m$^3$. The difference between the two species relates to the way the company purchases the timber, with rubber timber being based on tonnage and sengon being based on cubic metres. This is because the rubber timber logs are shaped like a bottle, meaning it would be unprofitable to apply a cubic metre rate. The rubber timber was reported to be stronger than sengon. The company often seeks timber from Vietnam, which is where China has relocated some elements of its timber processing industry. Vietnam offers a cheaper supply of timber and clearer regulations, which contrasts with Indonesia where there are many overlapping regulations creating much confusion among timber businesses.

Regarding the HTR, the mindset of farmers needs to be improved so there is greater enthusiasm to participate in the program. The development of the HTR needs networking opportunities for farmers to help enhance participation. The company also noted the potential to develop partnerships with local farmers by providing them with capital. For example, it was proposed that farmers could be provided Rp. 100 million (Au$ 10,000) to establish and maintain plantation of one ha, with the expectation that upon harvesting, the timber would be sold at the standard price to the company.

3.4.5.3. A small-scale timber processing business

A manager of a small-scale timber processing industry operating in Lampung stated that they should be subject to different regulations than those relevant to large companies, especially foreign investment-based corporations. There was seen to be a need for the regulations to be simpler and easier to comply with. The business produced a wooden stick used for broomhandles.

The main export destinations for the sticks are Turkey, Kuwait, Dubai, Canada, and other countries in Northern Africa. The company prefers to use eucalyptus timbers for its main production. *Acacia mangium*, which is abundant in the local area, can not be used for the broomstick handles due to its tendency to bend, which is not a problem for the eucalyptus timber.
The manager further commented that despite many wide spaces available for tree planting, local communities had planted timber species at the sub-district area, but only a small percentage, which was around 30 percent of the total land area in the sub-district of Tanjung Bintang. The planted species were dominated by *Acacia mangium* and *Albizia falcataria*. The majority of local community members preferred to plant agricultural crops, mainly because the crops could be used to feed their families or be sold at the local or other nearby markets. The company did not buy timber from farmers because of the low quality of the timber they produced. This was particularly the case when the trees were interplanted with agricultural crops such as maize, which led to unhealthy trees. The manager also expressed frustration that there was a lack of the preferred raw material for the broomstick handles (i.e. eucalyptus timber) and that the company could not compete with similar products imported from China which were available at a lower price.

The manager further expressed that in China, industrial timber plantation (HTI) was intensively developed with *Eucalyptus* as pioneer species. The characteristics of the species are the timber has a straight log and grow fast. Farmers could harvest the trees within the period of 5 years, therefore, China could produce lower price broom handles packed in hundreds of containers to be exported overseas. The price even lower compared to broom handles

Figure 9. The owner (right) of the the small-scale timber processing business CV Jae In, a producer of broomstick handles.
produced in Indonesia. As a result, broom handles produced by CV. Jae In could not compete within international market.

He further expected that to support HTR development, it needs a botanist to develop a high quality seed so that HTR could effectively and productively developed. By doing this, the harvested timber could foster the needs of raw material for CV. Jae In. He learnt from China with its good strategy that the involvement of botanist is important and could provide a positive impact to the quality timber.

The Government of China also strongly support the small-scale timber processing business (e.g. broom handles business) by providing a special loan and subsidy, also easy permit application procedure. There is a linkage and communication between private timber companies and botanist that have not been applied yet in Indonesia.

The current capacity of the company was 32,000 broomstick handles /week, each with a length of between 90 – 100 cm and an average diameter of 19 mm. The product is transported in a truck to markets in Lampung. The local market price is Rp 1,000/stick and the company has a profit margin of between 10-15 percent/stick. For exports, the diameter must be 22, 23 or 25 mm, with a length of 120 cm (fetching a price of Au$ 0.26/stick) or 150 cm (Au$ 0.40/stick). In contrast, similar-sized product sourced from China costs Au$ 0.16/stick, making the broomstick handles produced by the small-scale company uncompetitive in the global market.

The company has developed a business partnership with Gedong Wani FMU to source sustainable supply of raw material. But after visiting local farmers, it was evident that agricultural crops were the farmers’ most preferred commodity, raising great concern for the company. The company requires around 150 m$^3$ of timber per month, but can currently only source 100 m$^3$/month from the local farmers.

The company was hopeful the local government would reduce the number of local-level permits it was required to obtain. These permits are in addition to the ones required to be obtained from the central government. The manager explained that given the high cost of these permits, if there was no attempt to reduce the permit burden on small-scale timber processing businesses, many would soon face bankruptcy. The information presented below about factors that impede the small-scale timber processing business and their impacts in participating timber product export.

It appears there has been a lack of communication between local farmers and local timber processing businesses. A key role of the local extension officers is to encourage the establishment of timber plantations in villages, and to convince the villagers that local markets are available, provided they apply the appropriate silvicultural practices that will result in their producing high-quality timber that is sought after by the local markets.
3.4.6 Non-Government Organisations (NGOs)

The Community Industrial Creative Unit (UKIR) is an NGO that has been operating in Gorontalo since 2016. It has suggested the key factors influencing the success of a social forestry program are land tenure certainty, capacity building for farmers, local institutional improvements and product enhancement. The importance of good quality products was also highlighted, to ensure they can compete with imported products that are usually of a good quality. The UKIR has further suggested that farmers should harvest their timber based on a well-planned and implemented management regime that includes a defined rotation period, not on the farmer's own private needs for timber, which may result in haphazard harvests.
In summary, the perspectives of different stakeholders are listed in the following table:

Table 3. Stakeholder perspectives and actions about issues related to HTR

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Issue</th>
<th>Land tenure</th>
<th>Capacity</th>
<th>timber quality</th>
<th>Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central government</td>
<td>- Provides access to local communities to manage state-owned forest areas. &lt;br&gt; - Prioritise the resolution of land tenure conflicts.</td>
<td>Limited capacity of local farmers to manage HTR, therefore, it is needed ongoing guidance from either NGOs or Universities.</td>
<td>Provided farmers with good quality seeds for planting in HTR areas.</td>
<td></td>
<td>Supply timber for local timber processing businesses.</td>
</tr>
<tr>
<td>Provincial government</td>
<td>- Formed the Social Forestry Acceleration Working Group to accelerate social forestry policy implementation.</td>
<td>- Limited institutional capacity. &lt;br&gt; - Limited information for farmers. &lt;br&gt; - Farmers need intensive &amp; ongoing guidance.</td>
<td>- Farmers need training on silvicultural practices so they can produce high quality timber. &lt;br&gt; - Farmers need ongoing guidance from extension officers, universities &amp;/or NGOs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest Management Unit (FMU)</td>
<td>- Organised awareness raising about HTR to FFGs to avoid land claims. &lt;br&gt; - Developed coordination among related government institutions led by district head to accelerate HTR implementation.</td>
<td>- Intensive and continuous guidance is needed for farmers to strengthen their timber business management knowledge. &lt;br&gt; - Approaching respected persons is</td>
<td>- Farmers need knowledge to improve the quality of timber they produce.</td>
<td></td>
<td>Improved competitiveness of forest products. Therefore, farmers will have greater knowledge of timber markets before planting tree species.</td>
</tr>
</tbody>
</table>
important in influencing FFGs and their members, because local people commonly trust and follow their actions and recommendations

<table>
<thead>
<tr>
<th>Extension officers</th>
<th>Conducted awareness raising about HTR to FFGs &amp; local farmers.</th>
<th>Limited understanding about HTR.</th>
<th>Farmers still apply traditional silvicultural practices.</th>
<th>Brokers were identified as a hindrance for farmers to sell directly to businesses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFGs/farmers</td>
<td>Required land certificates.</td>
<td></td>
<td></td>
<td>- Difficult market access.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Timber price is very low.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Farmers expected more benefits and profits from timber.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Timber prices determined by middlemen.</td>
</tr>
<tr>
<td>Small- and medium-scale private companies</td>
<td>Legally, forest areas are managed under HTR but in reality, some parts are occupied by local communities and planted with agricultural species.</td>
<td>Need capacity building measures for farmers to grow better quality timber.</td>
<td>Low quality timber.</td>
<td>- Worrying about future local timber supplies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Timber was supplied by middlemen, not directly from farmers.</td>
</tr>
<tr>
<td>NGOs</td>
<td>- Farmers need tenure certainty.</td>
<td>- Low capacity of farmers.</td>
<td>Farmers produced low quality timber.</td>
<td>- Local government's paradigm needs to be changed, to promote timber industry development close to the tree stands.</td>
</tr>
<tr>
<td></td>
<td>- Assurance of land ownership.</td>
<td>- A need for knowledge transfer to farmers.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From Table 3, it could be concluded that the stakeholders shared many opinions on the issues for HTR development. For example, the stakeholders commonly noted the need for continuous guidance for farmers to develop their plantation management/silviculture knowledge and skills. The table also reveals that the stakeholders could work together for mutual benefits.

Figure 11 illustrates the number of perspectives about particular issues that were expressed by stakeholders. Land tenure was the most debated issue, both at Lampung and Gorontalo.

Figure 11 shows that land tenure and markets are the major problems being faced by smallholders in implementing HTR, followed by the limited capacity of smallholders and the low-quality timber being produced. Finding solutions for the two main problems needs to be a priority.

Commonly, HTR land is planted and mixed with productive agricultural trees such as coffee and cassava as farmers prefer these products because compared to timber plantations they can provide short-term income. There was previously abundant gmelina in Gedong Wani village, which was a potential source of material for the company. Other raw material used for its production was primarily rubber tree logs. To make a piece of plywood, the production cost was Rp 60,000/piece (Au$ 6). The efficiency was about 55 percent, with a one m$^3$ log producing 0.55 m$^3$ of final product. Wood waste is used for firewood. The company’s profit margin was around 5 percent of the selling price for each piece, including tax.

In Lampung, there are four plywood companies and also four veneer companies. Veneer is mostly sold to Java. The company’s total permanent workforce was 100 people and 150 people were hired as non-permanent workers. The company employed women to ensure a gender
balance between its male and female workers. The highest cost component for the company was the raw materials. Provided there are no new competitors, the company should still be operating in five years time, as stated by a senior manager of the company: “……if there was no competitor in the area we are operating, we could still manage our operation until five years time……”. The reason behind this statement was that local communities have a habit of not replanting rubber trees after their harvest, but instead plant cassava. Farmers were not interested in planting rubber trees due to the rubber substitutes or synthetic rubber now available in the market. Machinery to support the company’s processing operations were imported from China as they could not be produced in Indonesia.

The company had an expectation that the government should guarantee a sustainable timber supply to support its business. With the involvement of local governments, the company is eager to develop future partnerships with local communities.

The average diameter of logs supplied to the company was 17 cm for acacia, jabon and gmelina, and 14 cm for rubber tree logs. The quality of timber supplied to the company is grade 5 (range between 1–10). Higher grades of timber are sold to sawmills. The company would like to develop a cooperative, contracted partnership with a state-owned enterprise (PTPN) that will replant rubber tree plantations following harvest. To transport harvested timber, only a notification letter is now needed as there are no longer any illegal contributions collected along the transport route. Sometimes, buyers ask for verification of the origin of the timber, and in these cases the company shows its SVLK (Sistem Verifikasi Legalitas Kayu, Timber Legality Verification System), which can also be helpful in timber transportation. This certification system applied in the trade of timber has not yet influenced the timber price. In the past. The company previously exported timber (for woodworking) to China when its operations were focused on sawmilling.

The banning of log exports by the Indonesian government was good for smaller businesses because only large-scale companies were benefitting from the log exports. The capacity of the company’s sawmill was 500 m³/month, with an investment value (machinery and building) of around Rp 10 billion (AUD 1,000,000), excluding land value. With its production capacity, it had an estimated value of Rp 2 billion. It was reported there was a poor market outlook for the sawmill. In contrast, the plywood market was much better than that of the sawmill because plywood was in high demand for use in house construction. The average number of labourers working at the sawmill was 4 people per machine, with each person received payment at the local minimum rate of about Rp 2 million/month (Au$ 200).

### 3.5 Issues that emerged from the field

#### 3.5.1 Comparing large-scale forestry companies and HTR holders

Under the Ministerial Regulation No. P.62/2008 regarding Business Working Plans of Timber Forest Product Industrial Timber Plantation and HTR, the Government is required not to treat large forest companies and smallholders equally due to several limitations that the smallholders have. Specifically, the regulation dictates that a HTR program’s business permit for Timber Forest Product Utilisation be granted to an individual or cooperative to improve forest management and resource sustainability by applying appropriate silviculture. However, permit application process needs to be simplified.
Some scholars have stated that an indicator of the successful implementation of HTR policy is the level of community participation (Febriani, Darusman, Nurrochmat, & Wijayanto, 2012). Others consider this “participation” to include forms of revenue and benefit. That is, the revenues derived from an activity must directly benefit those who effectively participate, and should not be exclusively oriented to community infrastructure improvements, which also benefit community members who do not work and/or participate in the activity (Dourojeanni & Seve, 2007).

In the research locations of both Budi Lestari and Rumbia villages, there was little participation by local people in HTR management and there has been little attention given to their HTR areas. Villagers at both villages proposed that their HTR program would be managed through an FFG, with these FFGs being formed to accommodate a common vision and goal of developing HTR on certain areas near the villages. In Honduras where the vision of community members for community-based approaches emphasise the local community as a unit of homogeneous households with common goals and shared norms (Nygren, 2005). In Indonesia, the common goals could be an analogue with groups of HTR proponents, i.e. a cooperative, FFG or collective FFGs, which consist of individuals or FFGs as members.

Large-scale forestry companies will possess adequate skills and resources to achieve this regulatory requirement, but it is much less likely that the collectives of smallholder farmers (i.e. FFGs) managing HTR programs will possess the necessary skills and resources.

The Ministry of Environment and Forestry (MoEF) has reported that the total area allocated for HTR up to 2013 was around 700,000 ha, which was spread across 113 districts. However, the HTR permits issued cover only around 190,000 ha, with about 6,000 ha being managed by cooperatives and individuals. It was also documented by the MoEF (2018) that planning was underway for HTR permits to be issued for an area of around 300,000 ha, but by July 2018 permits had been issued for only 13,192 ha. This indicates there are still many field-level constraints and challenges for the HTR program’s implementation.

In accordance with the Social Forestry Regulation P.83/2016, three types of financing were recognized in HTR development – self-finance, partnership and developer. Self-finance refers to HTR programs being developed and self-financed by the permit holder, either through their own resources or a loan from a financial institution. Partnership financing involves a cooperative arrangement based on an agreement that is facilitated by the central or local government. Developer financing for HTR projects involves developers that could be state or private investors.

It has been documented that for the years 2009–2014, the total area of granted HTR permits was far below the target. By 2014, only about 14 percent of the 5.4 million ha allocated for HTR, had been granted permits. The following data released by the Directorate General of Forestry Business at the Ministry of Forestry (2018) indicated the progress of the development of HTR as figured in April 2014, land allocation was about 719,000 hectares with the permit issuance for the area of 190,000 hectares (26 percent) but planting was only organized at the area of 8,000 hectares. After 4 years (2018), additional 60 permits were issued to become 250,000 ha (35 percent), revealing a very slow progress both permits and planting activities. Lampung province, in particular, total area of HTR permit issuance was 17,359 ha, whereas Gorontalo province was 1,359.21 ha. According to a senior official of the Ministry, data about targeted HTR area of each province was not available due to a very small size of HTR area compared to other four schemes, i.e. Village Forests (Hutan Desa/HD), Community Based
3.5.2 The procedure for applying for a HTR permit

In many cases, smallholder farmers may not have the capacity or access to financial resources to fulfill the permit application requirements. Figure 12 depicts the HTR permit issuing procedure, which shows it involves a lengthy and complicated process. This has the potential to discourage FFGs from applying for a HTR permit and may explain the extremely low number of HTR permits that have been granted to local communities (Siscawati, et al., 2017).

3.5.3 Difficulty of financial access

Farmers have been facing difficulties in accessing financing resources, however due to limited information about available financing scheme set up by the Ministry of Environment and Forestry, then it was generally accepted that financing access is difficult. In addition,
requirements to obtain funding for HTR development were complicated for farmers because of their minimum capacity. One of the options for farmers to obtain funding for HTR is sourced from revolving fund for forest and land rehabilitation activities. The scheme is managed by the Forest Development Financing Centre (P2H) General Service Agency (BLU), a specific institution under the Ministry of Environment and Forestry.

Below are the updated regulations available concerning financial scheme for HTR development:

- Ministerial Regulation No. P.59/2015,
- Regulation of the Director of P2H No. P.2/2016, and

These regulations were set up using principles of the financing facility, including improvement of people’s economic welfare, alleviation of the poor, increase of job opportunities, the escalation of forest productivity and improvement of environmental health.

4 DISCUSSION AND CONCLUSION

4.1 Discussion

From the perspectives of HTR stakeholders outlined above, it appears there are many factors impeding HTR implementation. Collaboration between governments and NGOs was identified as an important factor to progress HTR implementation. A key issue revealed during the FGDs and in-depth interviews was the need for capacity building for local farmers, local institutions (e.g. FFGs and cooperatives) and extension officers. Consideration of institutional and socioeconomic factors along with personal characteristics of key stakeholders such as their beliefs, attitudes, financial resources and skills are important determinants of CBFM outcomes (Tole, 2010).

Boalemo District is popularly known as a region with a million gardens, and there has been much effort to develop HTR in the district, including interventions by the central government and local-level stakeholders. For example, the central government representative of the Technical Implementing Unit (TIU) in Gorontalo Province granted seedlings to farmers through the local FFG, with the expectation that the farmers would grow the timber trees in the designated HTR area. But the head of the FFG had limited knowledge of the HTR program and limited capacity to implement it, and as a result the seedlings were planted on the head’s private land without any oversight from the TIU. This demonstrates a need to improve the capacity of FFGs because these local-level institutions are a key stakeholder in the development and management of profitable HTR programs (Rohadi, Dunggio, Herawati, Wau, & Laode, 2016). In addition, TIU staff are also in need to be encouraged for improvement in terms of their motivation in monitoring and evaluation at the field level, as well as development of real reporting based on fact findings.

The research has also highlighted the importance of strong leadership of the local FFGs and cooperatives. The Gedong Wani FMU in Lampung was found to be facing similar HTR implementation challenges as in Boalemo District. The limited understanding of HTR programs among the FFGs was also evident here, with one FFG member believing their participation in the HTR program meant they were entitled to a land certificate from the government.
Historically, the farmer and other members of the FFG were residing illegally in the HTR forest area, and with the issuance of HTR permit, they incorrectly believed that they had been granted the legal right to reside in the HTR area.

It was reported that HTR development in Boalemo will require interventions by relevant institutions within the central and local governments. Enhancing the capacity of FFGs is a key factor for improving HTR management, and this will require ongoing support from extension officers. The FFGs need guidance on both the technical and business management aspects of HTR to develop their knowledge of HTR policy, potential timber markets and silviculture, to help them access capital, and ultimately to manage HTR plantations for profit.

As informed by an extension officer, there is still a very limited understanding of HTR in the Budi Lestari community. For this reason, the extension officer has mostly focused on introducing and explaining the HTR concept. The low capacity of local farmers is also a hindrance to successful HTR implementation. The FFG leaders played a meaningful role in motivating members to plant timber in the HTR area. Therefore, FFG leadership is a key factor in the successful implementation and ongoing management of HTR programs. The FFGs (and the leadership in particular) therefore require greater support from the local and provincial governments. Specifically for the permit granting process, it needs to raise community awareness and understanding of HTR programs and their potential to benefit local communities (Febriani, et al., 2012).

Discussions with operational managers from a medium-scale timber processing business revealed an urgency to develop its business due to a prediction that in five-years time there will be lack of timber supply from local communities. The central government set the HTR policy in part to support local forestry companies by resolving the problem of limited timber supplies. The policy, however, needs full support, both political and practical, from the other levels, as well as the governments must also work together to monitor HTR implementation, to identify constraints and potential solutions. It also revealed a mis-communication between industries and local timber producers, which requires the local government to intervene to support mutually-beneficial dialogue between the forest processing industries and local farmers who produced timber. In addition, local farmers need to be encouraged to replant trees following harvesting and consider adopting multiple-use agroforestry systems within HTR areas. The FMU, extension officers, NGOs and universities need to work together to provide ongoing information about the multiple benefits of HTR, including for household income, local economic development, and the environment.

Potential solutions to the above-noted impediments to and challenges for HTR implementation are summarised in Figure 13.
4.2 Conclusion

The HTR program is one of five schemes used by the MoEF to achieve its ‘social forestry’ agenda that provides an opportunity for smallholders to manage their own forests on state-owned land. During the process of HTR implementation, several constraints revealed and the Ministry has been trying its efforts to overcome the impediments, such as establishment of SFAWG in each province, financial access through General Service Agency, and free seedlings under Forest and Land Rehabilitation National Movement program. However, political, economic and technical factors still need to be seriously tackled. Simplifying HTR permit application is also a significant aspect to foster HTR implementation.

Strong coordination among related stakeholders both central, provincial and FMU levels need to be established as well as finding a strategic way to motivate farmers to manage HTR. These endeavours could possibly work by empowering SFA-WG with sufficient financial availability and linking farmers, who produce timber, to timber processing industries. The coordination is not only needed for HTR development at the two province case studies, but also applied at other provinces in Indonesia. The central government has allocated budget for SFA-WG since 2017, therefore, it is expected to be efficiently used to help farmers improve their capacities to manage HTR. Nevertheless, HTR progress at the two research locations are not typical HTR
implementation in Indonesia, some sites showed better establishment, such as the HTR project in Bajuin with full involvement of a state banking institution that facilitates a soft loan for HTR development, and a large state-owned agricultural company that acts as a care taker that provided guarantee for the HTR permit holder that upon harvesting the company will buy timber products from the HTR area.

5 RECOMMENDATIONS

- Expanding timber plantations with clear market access would be beneficial for farmers. It will be important to improve farmers’ silvicultural knowledge and skills so they can produce high-quality timber that can generate significant income.
- Farmers need to develop strong relationships with the local timber processing businesses that could be potential markets for their timber. By visiting these businesses, farmers will develop better knowledge about the quality of timber required by the industry. District governments could facilitate these visits for the mutual benefit of the farmers and the local timber processing industry.
- Strong leadership of FFGs is an important factor in developing the HTR, because the FFG leaders are the right people to promote the importance of planting trees and to encourage farmers to plant the timber species that are in demand in the local markets.
- Intensive and ongoing guidance from NGOs and other actors (e.g. universities) is essential for advice and support for farmers wishing to adopt tree planting, along with advice from SFA-WG. These groups should be established in all provinces, as mandated by the SF Decree No. 83/2016. The central government should ensure the SFA-WGs have a sufficient budget to effectively achieve their roles of increasing the implementation of the HTR.
- The government, through the General Service Agency or BLU, needs to ensure the FFGs and cooperatives (as the local institutions that hold the permits to manage HTR) have access to adequate financial resources and expertise.
- HTR locations should not be difficult to access. Farmers have limited transportation options and difficult-to-access sites can discourage farmer participation in HTR establishment and maintenance.
- The number of extension officers needs to be increased, along with their knowledge of HTR policy and markets, and technical plantation management (i.e. silviculture) skills.
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REFERENCES


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