The Indonesian Timber Legality Assurance System (Indo-TLAS) in the Community Forest: An Evaluation of Mandatory Timber Verification and Local Practice

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An Evaluation of Mandatory Timber Verification and Local Practice

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ABSTRACT

The failure of state and non-state initiatives to combat illegal logging and timber trade triggered the government of Indonesia to introduce a form of hybrid forest governance, which is called the Indonesian Timber Legality Assurance System (the Indo-TLAS). This policy has been developed in conjunction with the European Union policy measures under the Forest Law Enforcement, Governance, and Trade-Voluntary Partnership Agreement. As well as implementing the Indo-TLAS in state-owned forests, the timber industry, and among timber utilization license holders, it must also be implemented in community forests. Consequently, there are several challenges facing the local communities if they are to be involved in the implementation of the Indo-TLAS. Therefore, this research was aimed at evaluating the implementation of the Indo-TLAS in community forests by assessing the institutional and target-group effectiveness of the Indo-TLAS, assessing the community's perspectives on the advantage and disadvantages of the Indo-TLAS, and identifying potential improvements of the Indo-TLAS. This research focused on the implementation of the Indo-TLAS in Blora, Gunungkidul and Wonosobo since they became the first-three verified community forests on Java Island, Indonesia. The theoretical framework used is the Modified Environmental European Agency Policy Evaluation. The results showed that the policy measures of the Indo-TLAS matched with its policy design, and that the role of community associations in implementing the Indo-TLAS was significant. This means a high institutional effectiveness. However, the Indo-TLAS only affected forest management and administration and external relations. Meanwhile, the current traditional timber harvesting and marketing practices remain unchanged. Consequently, the target-group effectiveness is low. Still, the knowledge, skills, and experience of local farmers have improved, and their network and reputation have grown. However, to understand the Indo-TLAS concept much more efforts and plenty of time are necessary. In addition, a premium price for legal community timber does not exist yet. Hence, the most valuable suggestions for improving the policy design and measures of the Indo-TLAS were making the costs for verification and surveillance more affordable, improving the local implementation through better coordination between the Ministry of Forestry and local authorities, and investing more efforts in socializing the Indo-TLAS to the local communities. Lastly, forest community associations should improve the quality of their human resources and local people should be willing to shift from traditional logging and trading practices into modern ones.

Keywords: *hybrid governance, timber legality verification, community forest, policy evaluation, the Indo-TLAS*

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LIST OF ACRONYMS AND ABBREVIATIONS

APHRW	*Asosiasi Pemilik Hutan Rakyat Wonosobo* (Association of Community Forest Owners of Wonosobo)
ARuPA	*Aliansi Relawan untuk Penyelamatan Alam* (Volunteers Alliance for Saving the Nature), NGO based in Yogyakarta, Indonesia
BLU	*Badan Layanan Umum* (Public Service Agency), Ministry of Forestry, Indonesia
BPN	*Badan Pertanahan Nasional* (National Land Agency), Indonesia
BRIK	*Badan Revitalisasi Industri Kehutanan* (Timber Industry Revitalization Board), Indonesia
CBFM	Community-Based Forest Management
CF	Community Forestry
CFM	Community Forest Management
CITES	Convention on International Trade of Endangered Species
C&I	Criteria and Indicators
DFID	Department for International Development, United Kingdom
Dishut	*Dinas Kehutanan* (District Forestry Service), Indonesia
Dishutbun	*Dinas Kehutanan dan Perkebunan* (District Forestry and Plantation Service), Indonesia
Ditjen BPDAS&PS	*Direktorat Jenderal Bina Pengendalian Daerah Aliran Sungai dan Perhutanan Sosial* (Directorate General of Watershed Management and Development and Social Forestry), Ministry of Forestry, Indonesia
Ditjen BUK	*Direktorat Jenderal Bina Usaha Kehutanan* (Directorate General of Forest Business Development), Ministry of Forestry, Indonesia
DR	*Dana Reboisasi* (Reforestation Levies)
EEA	European Environmental Agency
EU	European Union
FFG	Forest Farmer Group
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement, Governance, and Trade
FMU	Forest Management Unit
FSC	Forest Stewardship Council
GJM	*Gabungan Kelompok Tani Hutan Jati Mustika* (Association of Forest Farmer Group of Jati Mustika), FFG based in Blora, Central Java, Indonesia
HKm	*Hutan Kemasyarakatan* (Community Forest Programme)
Indo-TLAS	Indonesian Timber Legality Assurance System
JPIK	*Jaringan Pemantau Independen Kehutanan* (Forestry Independent Monitoring Network), Indonesia
KAN	*Komite Akreditasi Nasional* (National Accreditation Committee), Indonesia
KBR	*Kebun Bibit Rakyat* (Community Nursery)
KWML	*Koperasi Wana Manunggal Lestari* (Cooperative of Wana Manunggal Lestari), FFG based in Gunungkidul, Yogyakarta, Indonesia

LEI	*Lembaga Ekolabel Indonesia* (Indonesian Eco-label Institute)
LH-LVK	*Laporan Hasil Verifikasi Legalitas Kayu* (Final Report of Timber Legality Verification)
LPI	*Lembaga Penilai Independen* (Independent Assessment Body)
LP&VI	*Lembaga Penilai dan Verifikasi Independen* (Independent Assessment and Verification Body)
LP-PHPL	*Lembaga Penilai Pengelolaan Hutan Produksi Lestari* (Assessment Body for Sustainable Production Forest Management)
LV-LK	*Lembaga Verifikasi Legalitas Kayu* (Verification Body for Legality Timber)
MFP	Multi-stakeholder Forestry Programme
MoF	Ministry of Forestry, Indonesia
MoU	Memorandum of Understanding
NGO	Non-Governmental Organization
NSMD	Non State-Market Driven
Perdirjen BUK	*Peraturan Direktorat Jenderal Bina Usaha Kehutanan* (Directorate General Regulation of Forest Business Development)
Permenhut	*Peraturan Menteri Kehutanan* (Minister of Forestry Regulation)
PHBML	*Pengelolaan Hutan Bersama Masyarakat Lestari* (Sustainable Community Based Forest Management)
PHPL	*Pengelolaan Hutan Produksi Lestari* (Sustainable Production Forest Management)
PKHR	*Pusat Kajian Hutan Rakyat* (Centre of Community Forest Research), Gadjah Mada University, Indonesia
PSDH	*Provisi Sumber Daya Hutan* (Forest Stumpage Fee)
PT	*Perseroan Terbatas* (Incorporated Company)
PUHH	*Penatausahaan Hasil Hutan* (Indonesian Timber Administration System)
Pustandling	*Pusat Standarisasi dan Lingkungan* (Centre of Standardization and Environment), Ministry of Forestry, Indonesia
RIPI	Recently Introduced Policy Instrument
SBU-SICS	Strategic Business Unit-Sucofindo International Certification Services
SHOREA	Small Home of Rural Empowerment Activities, NGO based in Yogyakarta, Indonesia
SKAU	*Surat Keterangan Asal Usul* (Indonesia reference letter about the origin source of community timber)
SK Menhut	*Surat Keputusan Menteri Kehutanan* (Minister of Forestry Decree)
SKSHH	*Surat Keterangan Sah Hasil Hutan* (Indonesia reference letter about the origin source of state timber)
SLK	*Sertifikat Legalitas Kayu* (Timber Legality Certification)
SLIK	*Sistem Informasi Legalitas Kayu* (Timber Legality Information System)
SPPT	*Surat Pemberitahuan Pajak Terutang* (Tax Return Document)
TLAS	Timber Legality Assurance System
VPA	Voluntary Partnership Agreement
VLK	*Verifikasi Legalitas Kayu* (Timber Legality Verification)

CHAPTER 1: INTRODUCTION

1.1 Background of the study

The decentralization era has been taking place in the Indonesian political and administrative system since 1999, and it has had many positive and negative effects in terms of forest management (Palmer & Engel, 2007). The shift of authority within forest management from the Ministry of Forestry (MoF) to the Regent, a district government, also included an income shift with the payment of permits, logging and reforestation fees having changed hands (Resosudarmo, 2004). Even though, the permits issued by the Regent were mainly for small forest concessions (Casson & Obidzinski, 2002), they also issues permits for medium and large ones (Resosudarmo, 2004). Furthermore, the amount of permits issued was rapidly increasing in number, for instance from virtually none into more than 30 permits that cover 11.000 ha of Berau forest[1] were issued in only half a year in 2002 (Casson & Obidzinski, 2002). Unfortunately, these permits have been implemented disorderly and became "a formality" for illegal logging activities (Brown et al., 2009; Casson & Obidzinski, 2002). Therefore, the deforestation rate was increasing rapidly. Additionally, the deforestation rate recorded in 1980 averaged of 1 million ha per year, but had increased to 1.7 million ha per year at the beginning of the 1990s, and had reached 2 million ha per year by 1996 (FWI & GWF, 2002). In 2009, the estimation of forest areas lost in Indonesia was around 33.4 million hectares (Prasetyo, Hewitt, & Keong, 2012).

Following the increase in deforestation in Indonesia, many state movements have appeared to against the practice of illegal logging and trading (Brown, et al., 2009). On the one hand, at the national level, the Presidential Instruction of the Republic of Indonesia no. 4/2005[2] has been issued to combat illegal logging in the state forests and its distribution throughout the country (Brown, et al., 2009; Setianingsih, 2009). Moreover, it triggered the MoF to issue the Regulation of the Minister of Forestry No. P.65/Menhut-II/2006 in terms of the implementation of Sustainable Production Forest Management (PHPL) in natural and plantation forest concessions. On the other hand, at the international level, several Memorandums of Understanding (MoU) have been signed to deal with illegal logging such as a MoU with the United Kingdom in April 2002, with China in December 2002, with Japan in June 2003, and with the United States of America in November 2006. In addition, Indonesia has accepted the same efforts of the European Union (EU-Commission) under the Action Plan of Forest Law Enforcement, Governance, and Trade-Voluntary Partnership Agreement (FLEGT-VPA) since May 2003. However, the impact of these state movements were not successful and did not deter the illegal loggers and traders (Setianingsih, 2009).

In responding to these state failures, many international private trade initiatives have appeared such as Verification of Legal Origin, Verification of Legal Compliance, the Tropical Forest Foundation, and the WWF Global Forest Trade Network (Brown, et al., 2009). Additionally, voluntary forest certification schemes have been emerging at the international level such as the Forest Stewardship Council (FSC), the Sustainable Forestry Initiative of the American Forest and Paper Association, and the Pan European Forest Certification Council (Meidinger, 2003; Molnar et al., 2004). Meanwhile, the first forest certification in Indonesia came in 1990, when Perum Perhutani (forest state company) was certified by Smart Wood (independent certification body) for sustainable teak forest management on Java Island. Furthermore, the government of Indonesia established the Indonesian Eco-label Institute (LEI) in 1993 as their own voluntary forest certification scheme and officially developed it as a foundation in 1998. In response to the existing international forest certification scheme, FSC, there was a Joint Certification Protocol that introduced criteria and indicators of both

[1] Berau is one of the districts in East Kalimantan Province
[2] This instruction was about combating illegal logging in the state forests and its distribution throughout Indonesia

LEI and FSC that should be used by FSC when assessing forest management (Muhtaman & Prasetyo, 2006).

Due to these forest certification schemes being voluntary and not legally enforced, the problem of illegal logging and trading in Indonesia still existed. Therefore, Indonesia tried a new forest policy approach by developing a credible and transparent system to ensure the legality of harvested and traded timbers. This effort has been in conjunction with the EU policy measures under FLEGT-VPA, which are established between the EU and timber producing countries to ensure that only legally obtained timber is imported into the EU (Simula, Ghazali, Atyi, & Contreras, 2009). Indonesia has thus became one of the FLEGT-VPA partner countries and fulfils two necessary elements, namely the common understanding of the legal definition of timber and the existing Timber Legality Assurance System (TLAS) (Simula, et al., 2009). Furthermore, this system was adopted into a mandatory legality verification scheme which is called the Indo-TLAS or Timber Legality Verification System (SVLK) (Wiersum & Elands, 2012).

After multi-stakeholder process has begun in 2003, the Indo-TLAS was authorised under the Minister of Forestry Regulation (Permenhut) No. P.38/Menhut-II/2009 that covers the performance of sustainable production forest management (PHPL) and timber legality verification (VLK) (Prasetyo, et al., 2012). The main components of the Indo-TLAS are the definition of legal timber, the chain of timber transportation and the independent verification and monitoring system (Prasetyo, et al., 2012; Simula, et al., 2009). The Indo-TLAS policy should be adhered to by all of the Forest Management Units (FMU) in Indonesia namely state-owned forests, state-owned forests managed by the community, large and small scale timber industries, timber utilization license holders, and the community forest, which are privately owned by the local communities (MoF, 2009). This study focuses on evaluating the implementation of the Indo-TLAS in the community forest on Java Island, Indonesia. The motives in studying the Indo-TLAS implementation in the community forest are further elaborated upon in the relevance of study section, presented in the sub-chapter 1.5.

1.2 Problem description

As well as implementing the Indo-TLAS in the state-owned forest managed by the community or large and small scale timber industries or timber utilization license holder, it must be also implemented in the community forest which are privately owned and managed by the local communities (MoF, 2009). The first-three community forests to have been certified on Java Island are located in Blora, Gunungkidul, and Wonosobo districts (ARuPA & SHOREA, 2011). The local communities manage their forest by combining forest and agriculture plantations the so-called agroforestry systems. The most common tree in Blora and Gunungkidul is *Tectona grandis* (teak) followed by *Acacia mangium* (acacia) and *Swietenia mahagoni* (mahogany), meanwhile in Wonosobo the dominant tree is *Paraserianthes falcataria* (sengon). Nowadays, the need for garden furniture and plywood production, especially on Java Island, has largely been met by the community's timber (Darusman & Hardjanto, 2006; Hinrichs, Muhtaman, & Irianto, 2008). However, the local people have limited access to the market because they manage their forest only for subsistence purposes and they harvest agricultural products from the forest (Hinrichs, et al., 2008; Irvine, 2000).

There are at least three common features in community forestry *inter alia:* 1) the local community is the main actor who manages the forest, 2) the local community has a legal right to participate, and 3) the different level of the local community participation (Glimour and Fisher, 1998 cited in Hinrichs et al., 2008). Furthermore, the trend in developing the community forest has been supported by non-governmental organizations (NGOs), the government, bilateral aid organizations, as well as the variety of relationships with relevant stakeholders (Bass, 2001; Irvine, 2000). Consequently, there are some challenges to be faced by the local communities if they are to be involved in forest certification, which is similar to legal verification. Firstly, they have to deal with the highly expensive

cost of certification and even though timber production is not their main source of income they still have to apply for traditional logging, which is lower than their allowable cut. Therefore, they are unable to make timber industries that can generate profit to pay the certification costs. Secondly, they have limited skills and knowledge to provide detailed documentation and inventories in order to fulfill the certification requirements. This is caused by the complexity of certification standards that are geared towards forest professionals in developed countries but do not consider local cultural values (Molnar, et al., 2004).

Reform is desperately needed to implement forest certification in the community forest. They also have a challenge in combining social and economic interests to manage their forests. Additionally, in order for local people to access the international market they should have previous marketing experience at local, regional or national levels, which is not common (Irvine, 2000). The application of the forest certification standard is more appropriate for larger-scale industries, or state-owned forests, where the main income is gathered from timber harvesting and processing and these are also more capable of accessing the market. Therefore, there are only few of the community forest that can survive forest certification, mainly those who can access the market and have better organization management (Irvine, 2000; Molnar, et al., 2004). Hence, since the community forest in Blora, Gunungkidul, and Wonosobo, which are located in Java Island, have been the first-three FMUs to hold the Indo-TLAS certificate, very little is known about the institutional and target-group effectiveness of the Indo-TLAS implementation in the verified community forest areas in Indonesia. The community perspective on the advantages and disadvantages of the Indo-TLAS and improvement suggestions were not known. Therefore, this study aimed to evaluate the implementation of the Indo-TLAS in the verified community forest as well as to assess the advantages and disadvantages of the Indo-TLAS for the local communities.

1.3 Research objectives

General objective

The general objective of this study is to evaluate the implementation of the Indo-TLAS in the community forest by assessing the institutional and target-group effectiveness of the Indo-TLAS, assessing the community's perspectives on the advantages and disadvantages of the Indo-TLAS and exploring the suggested improvements of the Indo-TLAS in the community forest.

Specific objectives

The specific objectives of this study are as follows:

1) To describe the policy design and measures of the Indo-TLAS in the community forest with respect to its scheme and objectives.
2) To describe the effects of the Indo-TLAS in the community forest on the communities' behaviour in terms of forest management.
3) To assess the institutional and target-group effectiveness of the Indo-TLAS in community forest.
4) To assess the community's perspectives on the advantages and disadvantages of the Indo-TLAS for the local farmers with respect to institutional and target-group effectiveness.
5) To explore the suggested improvements of the Indo-TLAS in the community forest.

1.4 Research questions

Main research question

What is the institutional and target-group effectiveness of the Indo-TLAS in community forest and what are the community's perspectives on the advantages and disadvantages of the Indo-TLAS and what are the suggested improvements of the Indo-TLAS in the community forest?

Specific research questions

The main research question is broad in nature. Therefore five underlying aspects will be highlighted in order to answer the main research question. The specific research questions in this study are as follows:

1) What are the policy design and measures of the Indo-TLAS in the community forest with respect to its scheme and objectives?
2) What are the effects of the Indo-TLAS on the community's behaviour in terms of forest management?
3) How effective are the institutions and target-groups of the Indo-TLAS in the community forest?
4) What are the community's perspectives on the advantages and disadvantages of the Indo-TLAS for the local farmers with respect to institutional and target-group effectiveness?
5) What are the suggestions to improve the Indo-TLAS in the community forest?

1.5 Relevance of the study

According to the progress report of the community forest development in Indonesia, around 7,995,630.3 hectares of the community forest are distributed in over 33 provinces (MoF, 2012a). All of these community forests should be verified by using the Indo-TLAS scheme. Recently, around 19 certificates have been granted to the community forest management units which are located on Java, Sumatera, Sulawesi, and Bali Islands (MoF, 2013a). On Java Island, the first-three community forests in Blora, Gunungkidul, and Wonosobo have gained timber legality certificate (SLK) under the Indo-TLAS scheme. These are the Gabungan Kelompok Tani Hutan Jati Mustika (Association of Forest Farmer Group of Jati Mustika) AKA GJM, Koperasi Wana Manunggal Lestari (Cooperative of Wana Manunggal Lestari) AKA KWML, and Asosiasi Pemilik Hutan Rakyat Wonosobo (Association of Community Forest Owners of Wonosobo) AKA APHRW. To gain SLK, they have been directly facilitated by two NGOs namely Aliansi Relawan untuk Penyelamatan Alam (Volunteers Alliance for Saving the Nature) AKA ARuPA and Small Home of Rural Empowerment Activities AKA SHOREA (ARuPA & SHOREA, 2011). Since GJM, KWML, and APHRW are the only community forests in Java that have been certified under the Indo-TLAS standards, the implementation processes and its advantages/disadvantages for local people need to be explored. If the Indo-TLAS in these community forests has been well implemented and provides more advantages than disadvantages, then it could trigger the government and other stakeholders to support the local people in gaining SLK. Therefore, the number of legal timber loggers and traders within the community forest will significantly increase.

This thesis contributes to the evaluation of the Indo-TLAS implementation in the community forest by assessing the institutional and target-group effectiveness of the Indo-TLAS and its effect on the local people. The findings in this study may be of interest to the government, especially the MoF, who act as the main regulator of the Indo-TLAS and need grounded suggestions for policy design improvement. Furthermore, these community forests could be a pilot model for implementation. The findings will also be interesting to those who have been involved in managing the certified community forest in Blora, Gunungkidul and Wonosobo, which includes the ARuPA and SHOREA NGOs, Forest Farmer Groups (FFGs), local communities, and the Indo-TLAS auditors. The outcomes of this study might be of interest to other researchers who are working on the issues of forest verification, particular in TLAS. This research is expected to support the aims of relevant stakeholders who are against illegal logging and trying to pursue sustainable forest management.

1.6 Research methodology

Research design

At this moment, there is lack of understanding and knowledge of the local practices involved in the Indo-TLAS implementation and of its advantages or disadvantages on the local farmers in the community forest. Therefore, this study adopted a grounded theory in order to gain insight and enhance understanding in the field through data comparison and theory development. This approach allows the emergence of theory from the ground and more build the theory rather than to test it (Charmaz, 2006; Strauss & Corbin, 1990, 1998). Strauss emphasized an interest in directly observing in the field to find out what are the local practices, and then build the relevant theory based on grounded data. Furthermore, the dynamic of people interactions and the role of people to overcome the problems need to be understood. The determination of the category of the phenomenon was constructed and reconstructed iteratively by reflecting the nature of people's interactions or events. Consequently, relationships between phenomenon, events and their impacts should be recognized. Meanwhile, Corbin emphasized the analysis of several sets of grounded data that can be compared with each other in order to develop theory and related categories. Therefore, the relation between the findings and theory development is very closely associated (Strauss & Corbin, 1990, 1998). The combination of Strauss and Corbin frameworks has been applied with grounded theory in this study.

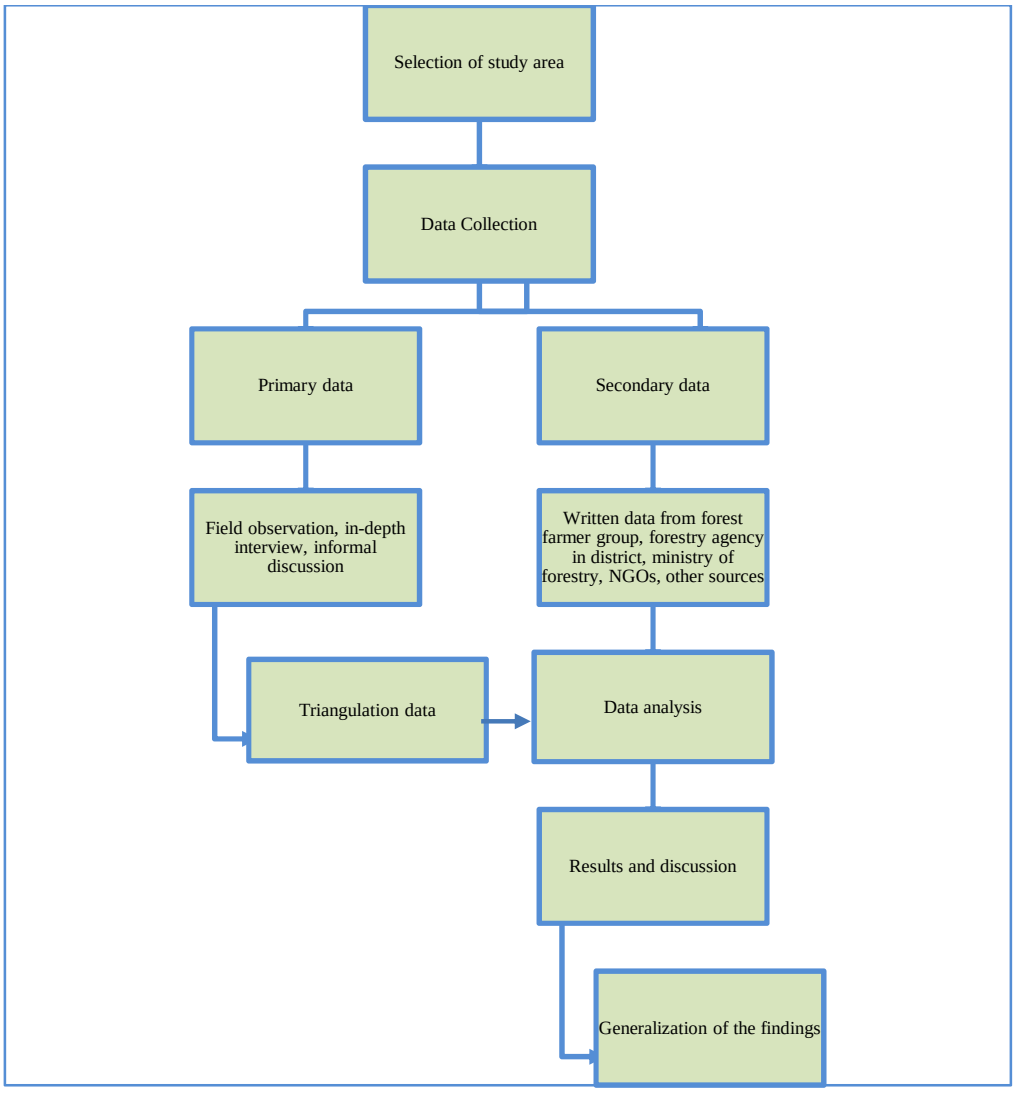

Figure 1: Research Design

Grounded theory has qualitative research design that finds and analyses data. This research is not derived from quantitative or numerical data. It is focused on how to interpret the experience or phenomenon that has been gathered in the field. Furthermore, the results would be in more organized data and it will end up in "a theoretical-explanatory scheme" (Strauss & Corbin, 1998, p. 11). The data is mostly gathered based on the experience and knowledge of local people and related stakeholders in implementing the Indo-TLAS which includes institutional arrangements, effects on community behaviour in terms of forest management, and the interaction between relevant actors in the first-three certified community forests on Java Island. Hence, three main components of qualitative research were performed in this study. Firstly, primary data was obtained by using in-depth interviews, field observations, and informal discussions. Secondly, written literature, reports, articles, and books were collected as secondary data. Triangulation data was conducted to clarify the gathered data from multiple sources. Thirdly, to analyse the data, coding procedures were carried out to conceive and arrange the data through data separation, conceptualization, and integration into theory. Furthermore, based on the analysed data, the result and discussion parts can be written and the generalization of the empirical findings was finally made (Charmaz, 2006; Miles & Huberman, 1994; Strauss & Corbin, 1998). The research design of this study can be seen in figure 1 above.

Study area

The research was conducted in the first-three community forests on Java Island that obtained the Indo-TLAS certificate, namely GJM, KWML, and APHRW. They have been assisted by ARuPA and SHOREA NGOs. Furthermore, PT(*Perseroan Terbatas*)-Sucofindo SBU-SICS (Strategic Business Unit-Sucofindo International Certification Services), as an Independent Assessment and Verification Body (LP&VI), granted the certification in October 2011 (ARuPA & SHOREA, 2011). General information of the research areas can be seen in table 1.

Table 1: General information of the research areas

FFG	District, Province	Geographical and Population Description
GJM	Blora, Central Java	▪ Located between 6° 528' – 7° 248' South Latitude and 111° 16'- 111° 338'East Latitude. ▪ Bounded by Rembang and Pati, Central Java (north side); by Bojonegoro, East Java (east side); by Ngawi, East Java (south site); by Grobogan, Central Java (west side). ▪ Total area is 1,820.59 km^2 which consists of 16 sub-districts and 295 villages. ▪ Population in 2011 was estimated at around 833,768 people. ▪ Percentage of forest is 49% of total area. ▪ The whole of the community forest areas is about 13,065.68 ha. *)
KWML	Gunungkidul, DI Yogyakarta	▪ Located between 7° 46' – 8° 09' South Latitude and 110° 21'- 110° 50'East Latitude. ▪ Bounded by Klaten and Sukoharjo, Central Java (north side); by Wonogiri, Central Java (east side); by Indonesian Ocean (south site); by Bantul and Sleman, DI Yogyakarta (west side). ▪ Total area is 1,485.36 km^2 which consists of 18 sub-districts and 144 villages. ▪ Population in 2011 was estimated at around 677,998 people. ▪ Percentage of forest is 26% of total area. ▪ The whole of the community forest areas is about 31,118.10 ha. *)

FFG	District, Province	Geographical and Population Description
APHRW	Wonosobo, Central Java	▪ Located between 7° 43' – 7° 04' South Latitude and 109° 43'- 110° 04'East Latitude. ▪ Bounded by Banjarnegara, Kendal and Batang (north side); by Temanggung and Magelang (east side); by Purworejo and Kebumen (south site); by Banjarnegara and Kebumen (west side). ▪ Total area is 986.68 km^2 which consists of 15 sub-districts and 236 villages. ▪ Population in 2011 was estimated at around 900,653 people. ▪ Percentage of forest is 19% of total area. ▪ The whole of community forest areas is about 34,496.89 ha. *)

Source: Blora in Figure (BPS-Blora, 2012), Gunungkidul in Figure (BPS-Gunugkidul, 2012), Wonosobo in Figure (BPS-Wonosobo, 2012) and *) Final Report of Community Forest Inventory in Java Island (MoF, 2010).

The map in Figure 2 below shows the location of the community forests in the Central Java Provinces of Blora, Gunungkidul and Wonosobo.

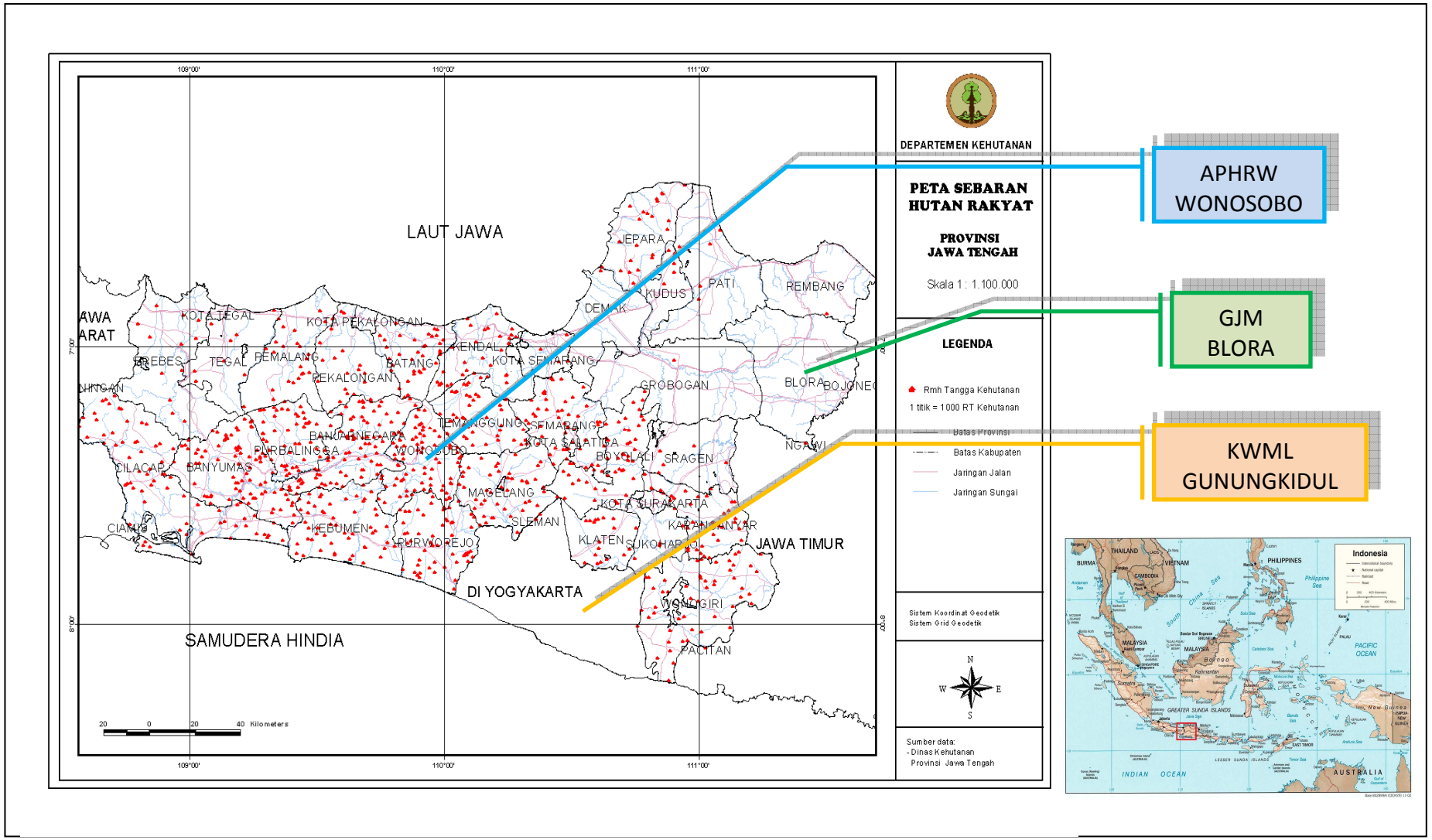

Figure 2: Location of Blora, Gunungkidul and Wonosobo districts (Dishut-Provinsi-Jateng, 2013).

Selection of respondents

The combination of purposive and snowball sampling was used in this study. Purposive sampling was conducted to select the first-three certified community forest areas and involved verification actors. The aim of this sampling was to enrich the gathered data and in-depth understanding from selected respondents (Patton, 1990, cited in Starks & Trinidad, 2007). The need of a study also became the background in choosing purposive sampling (Morse, 1991, cited in Starks & Trinidad, 2007). The first selected respondents were FFG board members in each area and facilitators from ARuPA and SHOREA NGOs. They provided information on the Indo-TLAS implementation phases, namely preparation, verification, and surveillance. They also shared their experiences and knowledge on institutional arrangement and the Indo-TLAS effect on local behaviour. The next selected respondent was PT-Sucofindo SBU-SICS (LP&VI) in order to get their knowledge and experiences in verifying the existing standards of the Indo-TLAs in the community forest. Furthermore, a Multi-stakeholder Forestry Programme (MFP) that assists the funding for local communities to gain the Indo-TLAS certificate and gave their knowledge as to why the Indo-TLAS must also be implemented in the community forest. Some certified industries were also selected to share their insight of the Indo-TLAS effect on local people in terms of timber marketing. Moreover, national and local governments namely the Mof, *Dinas Kehutanan* (Dishut/District Forestry Service), and *Dinas Kehutanan dan Perkebunan* (Dishutbun/District Forestry and Plantation Service), were selected in this study to provide information on the policy design of the Indo-TLAS, the ideal strategies to implement it, and policy measures in the field. Nonetheless, academics from Gadjah Mada University were selected, mainly to provide expert overviews on the concept of a community forest and the Indo-TLAS policy.

Due to the nature of the grounded theory approach, snowball sampling was performed as a method to gather enough information from the local communities until saturation was reached. By using snowball sampling, the researcher could access potential interviewees through previous interviewees who provided contact information for the next interviewee (Noy, 2008). Therefore the selection of the local communities was determined by considering suggestions from previous respondents that were involved in the Indo-TLAS implementation. The local people provided information on the process of the Indo-TLAS implementation in the field. They also shared their experiences, feelings, knowledge, and behaviour relating to the presence of the Indo-TLAS. To get enough information, around 55 respondents were involved in this study (Annex 2). As many as 23 of key informants were selected using purposive sampling and 32 of local farmers by using snowball sampling. This number was adjusted to the respondent number suggested in grounded theory, which ranges from 10 to 60 persons (Starks & Trinidad, 2007).

Data collection methods

Within the study there were two stages of data collection: the primary and secondary data collection stages. To collect primary data, the field observations, informal discussions and in-depth interviews were used. Meanwhile, literature reviews and secondary data collection were employed to enrich the data and were used in triangulation data analysis. A more detailed explanation of data collection methods are as follows:

1) Field observation and informal discussion

   Between December 2012 and January 2013, the certified community forests in Blora, Gunungkidul, and Wonosobo were visited and observed. Field observation was useful to get an understanding of the actual condition of the certified community forests regarding physical, social, cultural and economic conditions. Furthermore, the connection between local people and their behaviour could be identified through this method (Kumar, 2010). Being in the field allowed the researcher to gain insight into the new concepts of events, phenomenon, behaviour, and human interaction, related to the Indo-TLAS implementation that could not have been gathered by interview and literature reviews only. As soon as possible after field observation was done, the scratch notes in the field were written which consisted of observation notes (description),

theoretical notes (interpretation), methodological notes (reflection on research choices), and reflective notes (feelings and experiences) (Kumar, 2010). Moreover, an informal discussion, generally with the host or key person where the researcher stayed, was undertaken to enrich and clarify the gathered data during field observation.

2) In-depth interview

In-depth interviews were conducted as the second data collection method. These interviews consisted of some initial concepts in order to find out more detailed information concerning people's insight, experiences, and behaviour in relation to the the Indo-TLAS implementation in the community forest. Moreover, this interview also enabled new concepts to emerge from the interview processes (Boyce & Neale, 2006). Three instruments were developed in performing in-depth interviews: "an interview protocol, interview guide, and translation of the interview guide into the local language" (Boyce & Neale, 2006, p.5). Interview protocol was used at the beginning of interview by introducing the reseacher's personal background, a rationale of the respondent's selection, the interview objectives and the length of the interview. Furthermore, the researcher asked for respondents' permission to making notes and uses a tape recorder during the interview process. Additionally, probing techniques were used, such as clarification and repeatation of the question or answer. This technique was used to ensure that the responses were complete, clear, relevant and consistent (Boyce & Neale, 2006; Kumar, 2010).

The interview guide (Annex 1) was made and included "an informed consent form" and the list of questions or concepts to be asked during the interview (Boyce & Neale, 2006, p.5). An informed consent form was signed by respondents as proof that they were willing to be interviewed. The interview concepts that were listed were namely institutional and target-group effectiveness of the Indo-TLAS's implementation in the community forest. The advantages and disadvantages of the Indo-TLAS on local people and suggested improvements were also listed. Under these themes, respondents were asked to give their knowledge and experience of the policy design of the Indo-TLAS in the community forest, the implementation processes, the community institutional arrangement, and the effect of the Indo-TLAS on local behaviour in terms of forest management. Additionally, they were asked to describe the challenges they faced during the Indo-TLAS implementation and the advantages and disadvantages of the Indo-TLAS had on local people. Finally, the improvement suggestions of the Indo-TLAS's implementation were explored.

The interviews with key informants were conducted in the language of Bahasa Indonesia while the interviews with local communities were conducted in both Bahasa Indonesia and Javanese languages. The time taken in conducting these interviews ranged from 40 minutes to 3 hours depending on the respondent's role. The interviews have been conducted during December 2012 to April 2013. Key informants who were involved in implementing the Indo-TLAS in the community forest were FFG board members, NGOs, MFP, MoF, Dishut/Dishutbun, certified industries, LP&VI, and academics. Meanwhile, local farmers were living in the first-three certified community forests in which this study was employed. Also, one respondent was interviewed by email and two respondents by phone due to the barriers of distance and time.

3) Literature review and secondary data collection

Literature reviews were carried out to find, learn and compare the existing the Indo-TLAS implementation in the community forest with previous scientific articles to complement the field observation and interviews (Strauss & Corbin, 1990, 1998). These articles were also useful in formulating the conceptual framework within this study, namely the concept of hybrid governance, community forest management and the policy evaluation framework. Meanwhile, secondary data such as basis regulations, books/reports of forest certification/verification, and many related documents have been gathered from the FFGs, NGOs, MFP, MoF, and Dishut/Dishutbun.

Data analysis methods

Coding procedures which consisted of "open, axial, and selective coding" were employed in the data analysis in emerging new concepts and building theory (Charmaz, 2006; Creswell, 2012; Dey, 1999; Strauss & Corbin, 1990, 1998). The first step was to transcribe every interview recording onto a verbatim transcript and these were marked with a number relating to the respondents. Consequently numbers R1 to R55 were applied to the respondents. Furthermore, open coding was employed to identify a list of codes from each interview transcript by reading and identifying them line by line. Moreover, axial coding was performed to create categories and sub-categories based on the relation between existing codes. Finally, selective coding was conducted to select the main categories that were used in formulating the conceptual model and reconnecting data to answer the research questions. Coding procedures stopped when data saturation was reached. This means that the researcher stopped included new concepts in this analysis once new and relevant concepts could no longer be learned (Strauss & Corbin, 1990, 1998). Nonetheless, secondary data that was gathered from field observation, informal discussion, literature review, and relevant stakeholders were analysed to supplement the interview results.

1.7 Thesis outline

This thesis is organized in five chapters and can be described as follows:

Chapter 1: The first chapter of this study started with the presentation of the background of the Indo-TLAS in Indonesia. Subsequently, it narrowed down the scope to its implementation as a mandatory forest verification scheme. Then, the problem concerning the implementation of the Indo-TLAS in the community forest was framed into the approach of environmental policy evaluation. Therefore, the objectives and research questions for this thesis were presented. Furthermore, the reasons for investigating the Indo-TLAS implementation in the community forest and the relevance of this study were also presented. This chapter finalized by describing the research methodologies that have been used in this study.

Chapter 2: Chapter two presents the conceptual framework which provides the main concepts used of the research. This study is based on the concept of hybrid governance and TLAS as an example of new global forest regime. Furthermore, the concept of community forest management (CFM) is also used in this study. In order to evaluate the Indo-TLAS in the community forest, the modified Environmental European Agency (EEA) policy evaluation framework is described in this chapter. Finally, particular concepts of institutional and target-group effectiveness are used to develop the research conceptual framework.

Chapter 3: The third chapter is describing the main findings of this study which provides the policy design and measures of the Indo-TLAS in the community forest. Development of the Indo-TLAS and community forest in Indonesia is firstly introduced in this chapter. It gives brief overview on how the Indo-TLAS was established, specific features of community forest in Indonesia, and progress of the certified community forests under the Indo-TLAS scheme. Furthermore, definition, objectives, legal bases, standard, scheme, and components of the Indo-TLAS are presented as an overview of its policy design. Moreover, policy measures of the Indo-TLAS in the community forest -particular in Blora, Gunungkidul and Wonosobo- are presented in this chapter that consists of preparation, facilitation, verification, and surveillance. Lastly, the supporting and inhibiting factors of the Indo-TLAS implementation are also given.

Chapter 4: The fourth chapter is describing the effects of the Indo-TLAS on the community behaviour in terms of forest management. The assessment of institutional and target-group effectiveness of the Indo-TLAS in the community forest was presented which based on its policy design, measures and effects on local communities. Furthermore, this chapter is also reflecting community perspectives on

the advantages and disadvantages of the Indo-TLAS for local people as well as improvement suggestions that can be recommended.

Chapter 5: The reflections of the results, theoretical and methodological of this study are discussed in this chapter.

Chapter 6: The last chapter presents the general conclusions and recommendations of the Indo-TLAS implementation in the community forest in Blora, Gunungkidul, and Wonosobo which are located in Java Island, Indonesia.

CHAPTER 2: CONCEPTUAL FRAMEWORK

This study focuses on the Indo-TLAS policy and its implementation in the community forest. A concept that can explain the development of the Indo-TLAS scheme is hybrid governance. This concept is used to demonstrate the principles and characteristics of the Indo-TLAS as a format of hybrid governance where the forest policy arrangement was determined by a "mixed coalition of government and governance" (Arts & Buizer, 2009, p.345). Meanwhile, to describe the nature of the community forest, the concept of CFM will be used. This concept provides insight into how the local communities implement the forest policy at the local level. Furthermore, an environmental policy evaluation will be applied, in particular of the modified EEA policy evaluation framework to evaluate the implementation of the Indo-TLAS in the certified community forest. This framework is a useful concept that evaluates the effectiveness of policy implementation in terms of the institutional, target-group, environmental, and societal aspects (Gysen, Bachus, & Bruyninckx, 2002). However, only two concepts of institutional and target-group effectiveness were implemented in this study because the policy of the Indo-TLAS was only employed in the community forest in the last 3 years. Finally this chapter presents the conceptual framework for the evaluation of the Indo-TLAS's implementation in the community forest.

2.1 The concept of hybrid governance

The political dynamic of the global forest regime has changed several times in the last thirty years, which threatens biological diversity, sustainable development, forest certification, community forestry, and other forestry issues (Arts & Buizer, 2009; Meidinger, 2003). Many environmental movements have emerged including international negotiations between states, private initiatives, and the power of civil society (Arts & Buizer, 2009; Chan & Pattberg, 2008). However, the rate of deforestation and land degradation is still increasing due to the repeated failure of forest policies and the absence of international binding law on forest management (Dimitrov, 2005). Hence, today a new concept has again emerged in the global forest regime, known as "hybrid governance". State and non-state actors both have active roles in this regime (Arts & Buizer, 2009, p.345). The emergence of hybrid governance in the global forest regime can be clearly seen in the development of timber legality verification where all of the global forest actors, both state and non-state, are involved (Arts & Buizer, 2009; Brown, et al., 2009; Cashore & Stone, 2010; Cashore & Stone, 2012). Before the concepts of hybrid governance and timber legality verification are elaborated upon, the political dynamics in the global forest regime will be introduced in order to gain a comprehensive overview of forest governance.

2.1.1 Political dynamics in global forest regime

Many environmental problems, particular in forestry sector, are trans-boundary and require global agreements, rules and cooperation between countries. The development of a global forest policy has thus become a vital process to be understood. In 1980s, the first-two emergences of global forest policy were related to:

1) Biodiversity and conservation programs, which began with "the National Forum on Biodiversity"" conference in 1986 (Jeffries, 2005 and Wilson, 2006 cited in Arts & Buizer, 2009, p.344) and finally adopted "the Framework Convention on Biological Diversity" in 1992 (Arts & Buizer, 2009, p.344);
2) The potential economic value of the forestry trade system, which began with "the Convention on International Trade of Endangered Species" (CITES) and was followed by "the

International Tropical Timber Agreement" in 1994 (Arts & Buizer, 2009; Simula, 1999, p.17-18).

Furthermore, by the beginning of 1990s, the concept of "sustainable development" had emerged as a bridge to reconcile the interests of environment and development. As a result, a new approach has now been applied in the global forest regime, which is called "sustainable forest management" (SFM) (Arts & Buizer, 2009, p.344). This can be described as the comprehensive management of all forest types in terms of forest products, the environment, and social provisions for the current and the next generations (Arts & Buizer, 2009; Wijewardana, 2007).

Even though many ideal concepts of the global forest regime have been developed at the international level, the national and local practices have not been running smoothly. For example many tropical countries have been reluctant to employ the CITES in the timber trade system, because it was considered as a constraint on accessing international markets (Simula, 1999). Similarly a difference in understanding of the SFM concept hindered forest management. Consequently, these state initiatives, "government and intergovernmental", remained unsuccessful in coping with global forest problems (Arts & Buizer, 2009, p.345).

In response to these state failures, in the early 1990s the non-state authority took place in the global forest regime the so-called "private governance". The main characteristics of private governance shifted from state authority to private authority, influenced by the market and by having their own regulation system (Arts & Buizer, 2009; Chan & Pattberg, 2008; Gulbrandsen, 2004, 2005; Meidinger, 2003). In reference to the term used by Cashore, private governance can also be called a "non-state market-driven (NSMD) governance system" (Cashore, 2002; Cashore, Egan, Auld, & Newsom, 2007). A well-known aspect of private governance in the global forest regime is forest certification. Through the pressure of environmental movements, forest certification was introduced as "a potential instrument to promote SFM" by improving forest management and ensuring the sustainability of forest products to fulfil market demand (Rametsteiner & Simula, 2003, p.87). Furthermore, Meidinger (2003, p.265) defined forest certification as follows:

> *"Forest certification is a process through which transnational networks of diverse actors set and enforce standards for the management of forests around the world" (Meidinger, 2003, p.265).*

The most common components of forest certification meet standards that support SFM. These standards are met in many ways, such as Criteria and Indicators (C&I), independent accreditation and certification bodies, auditing and monitoring systems, and the eco-labelling logo on certified forest products. All of these components were adopted by the first forest certification scheme, the FSC, which was established in 1993 (Bass, 2001; Chan & Pattberg, 2008; Gulbrandsen, 2004, 2005; Rametsteiner & Simula, 2003). FSC was recognized as "a voluntary, market-driven certification and labelling scheme" (Humpreys, 1996 cited in Gulbrandsen, 2005, p.127). Furthermore, cooperation between environmental NGOs (led by the World Wide Fund for Nature), timber industries, timber market actors, and other stakeholders existed and helped to develop this scheme (Gulbrandsen, 2004, 2005).

Following the emerging of the FSC scheme, two national certification schemes were also established, the Pan European Forest Certification, and Sustainable Forestry Initiative of the American Forest and Paper Association(Bass, 2001; Gulbrandsen, 2004, 2005; Meidinger, 2003; Molnar, et al., 2004; Rametsteiner & Simula, 2003). Forest areas that certified by FSC in Europe and America became least due to the implementation of these national forestry schemes (Gulbrandsen, 2005). The impact of forest certification towards SFM based on 10 years' experience, explored by Rametsteiner and Simula, (2003) are as follows:

1) Most of the certified forest areas were located in North countries whereas only 10% was located in South countries,
2) The Standards were contested and interpreted differently by many stakeholders all over the world,
3) The assessment methods that were employed by independent audit bodies were diverse,
4) The absence of timber's "premium price" for tropical countries,
5) The "green marketing" image was only left.

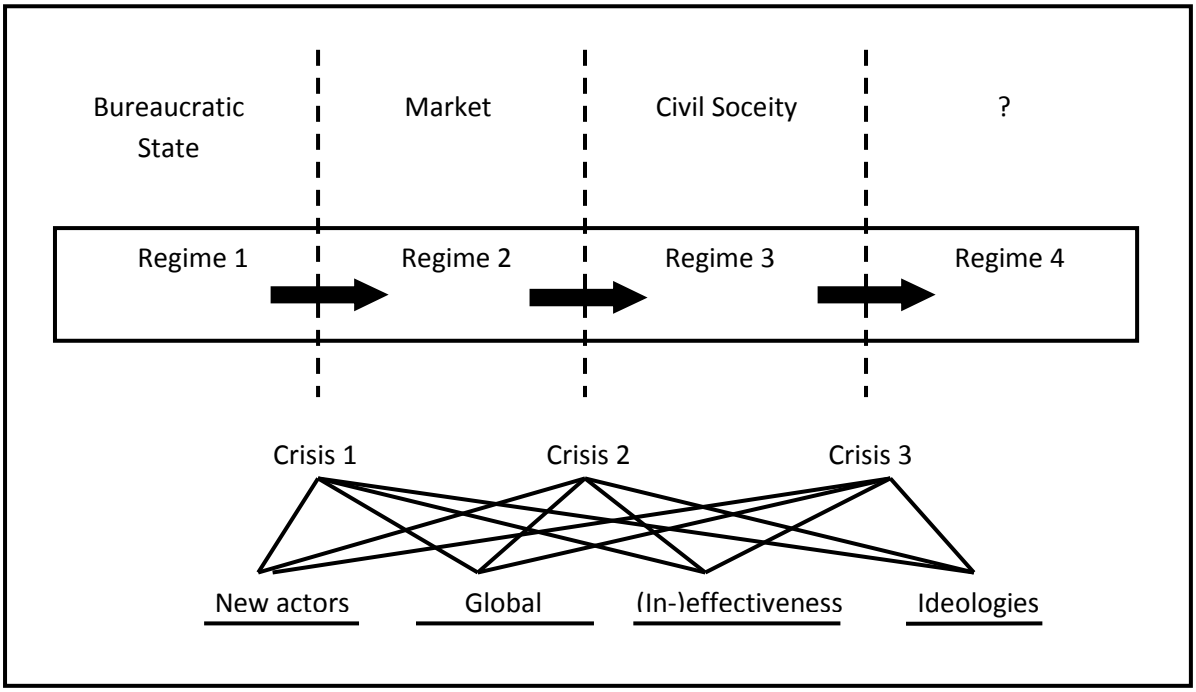

Figure 3: Changing Accountability Regimes (adapted from Chan & Pattberg, 2008, p.108)

In line with the development of the global forest regime, Chan & Pattberg (2008, p.117) also stated "a novel system of accountability has emerged in the area of global forest governance". This means that the politics of accountability in the global forest regime has changed over time, and this has been caused by "an accountability crisis" (Figure 3). There are at least four important factors that influence the crisis: "the emergence of new actors and changing power relations, changes in the global framing of problems, the perceived or real ineffectiveness of the regime, and ideological shifts" (Chan & Pattberg, 2008, p.109). Consequently, the political change that occured in the global forest regime shifted from government and intergovernmental initiatives, a "bureaucratic state", into the market and civil society initiatives (Chan & Pattberg, 2008). The remaining question is what will the next regime of global forest governance be?

2.1.2 Hybrid governance as a new global forest regime

In reference to the theory of environmental governance, three mechanisms and strategies have been employed in the global environment management (Figure 4) *inter alia:*

1) "Co-management" that occur between governments and local communities in terms of natural resource management.
2) "Public-private partnership" is a coalition between governments and business actors in terms of resource utilization.
3) "Private-social partnership" is the relation between business actors and local communities in terms of the provision of environmental services.

Therefore, a form of hybrid governance was defined as a "collaboration across the dividing lines represented by markets, states, and communities" (Lemos & Agrawal, 2006, p.310-311). This means the interconnection and cooperation between these stakeholders exists to overcome the environmental problems. Hence, hybrid governance might occur if incorporation occurred between all of these mechanisms and strategies or at least between two of them (Lemos & Agrawal, 2006).

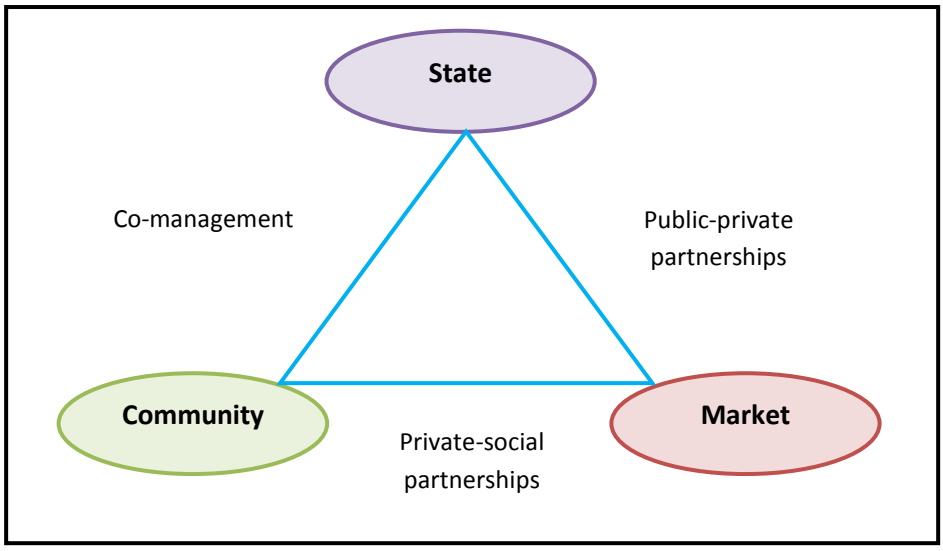

Figure 4: Mechanisms and strategies of environmental governance (adapted from Lemos & Agrawal, 2006, p.310)

Moreover, the concept of hybrid governance has also been described as cooperation among stakeholders, both state and non-state actors (Karkkainen, 2004; Makadok & Coff, 2009). The form of hybrid governance was described by Makadok and Coff (2009, p.297) as follows:

> *"Across-task synergies in a multitask principal-agent model, where hybrid forms result as principals try to motivate cooperation among agents indirectly through incentives, ownership, and formal authority" (Makadok and Coff, 2009, p.297).*

The following is other explanation of hybrid governance by Karkkainen (2004, p. 74):

> *"The emergent structure a mode of hybrid problem-solving governance in which sovereign states and non-state parties actively collaborate, roughly as equal partners, to address certain kinds of highly complex problems that appear to be beyond the capacity of sovereign states alone to solve" (Karkkainen, 2004, p. 74).*

In the global forest regime, the presence of hybrid governance was not only triggered by state failures, but by market and civil society initiatives that were also unable to address the trans-boundary forestry problems (Arts & Buizer, 2009; Gulbrandsen, 2004, 2005). As a result, "mixed coalitions between governments, NGOs, and business" took over the main roles in formulating a new global forest regime, which led to the presence of "hybridization of government and governance" (Arts and Leroy, 2006 cited in Arts and Buizer, 2009, p.345). At least three main factors have encouraged governments to shift into hybrid governance (Glasbergen *et al.*, 2007 cited in Arts & Buizer, 2009):

1) Government experiences in participating to develop national forest certification schemes.
2) The active involvement of governments in defining the discourse of sustainability and legality under the FLEGT Action Plan.

3) Government awareness of current global forest problems that cannot be solved only by private governance.

2.1.3 Timber legality verification as a form of hybrid governance

The emergence of hybrid governance in the global forest regime can be clearly seen in the development of timber legality verification where all of the global forest actors such as governments, NGOs, markets, and civil society were involved (Arts & Buizer, 2009). The timber legality verification system is triggered particularly, but not only, by donors and many civil society in timber importing countries (Brown, 2005). The main purpose of this system is to overcome illegal logging and forest degradation by setting up a credible and transparent system which consists of a legal definition, verification and surveillance, accreditation, independent monitoring, and timber supply chain (Arts & Buizer, 2009; Brown, et al., 2009; Cashore & Stone, 2010; Cashore & Stone, 2012). Additionally, this system is also aimed at "building market confidence, establishing environmental controls, and promoting good governance". However, these objectives could vary in every country and became a future challenge (Brown, 2005, p.3).

The basic definition of verification has been described by Sur (1991, p.13), cited in Brown (2005, p.3), is as follows:

> *"Verification is a process covering the entire set of measures aimed at enabling the parties to an agreement to establish that the conduct of the other parties is not incompatible with the obligations they have assumed under the agreement" (Sur, 1991, p.13, cited in Brown, 2005, p.3).*

Over the last twenty years, many state and non-state initiatives have emerged to address forest problems, but the idea of legality verification as a solution was never mooted. It has been disconcerting when many actors have agreed on legality verification where its scope has been very limited and more simple, rather than previous global forest conventions and certifications or "good forest governance" at the national level (Cashore & Stone, 2010; Cashore & Stone, 2012). The main characteristics of forest legality verification, forest certification (NSMD), and domestic "good forest governance" have been classified by Cashore & Stone (2012) in table 2.

Table 2: Main Characteristics of Forest Legality Verification, Forest Certification (NSMD) and Domestic "Good Forest Governance"

	Forest Legality Verification	Forest Certification (NSMD)	Domestic "Good Forest Governance"
Role of Government	Sovereign governments decide rules	Sovereign governments are not required to adhere to rules	Sovereign governments decide the rules
Policy Scope	Limited	Broad	Broad
Assurance	Verification required	Verification required (Third Party Auditing)	Often weak
Role of Markets	Tracking along supply chain	Tracking along supply chain	Demand for products
Economic Incentives	Weeding out supply increase prices	Demand from customers	Increased tax revenues

Source: Adapted from Cashore and Stone (2012, p.15)

2.2 Community forest management

The term community forest management (CFM) emerged when "the Forest for People" World Forestry Congress was held in 1978. Then the paradigm shift of governments in developing countries changed and recognized that local people who live within and around forests have better knowledge in managing their forests (Down to Earth, 2002, cited in Hinrichs et al., 2008). Since the community forest has become one of the TLAS (Timber Legality Assurance System) objects, some challenges have had to be faced by the local communities to enable them to be involved in legality verification. The highly expensive cost and limited skills in terms of fulfilment of the administrative requirements might become main challenges in dealing with TLAS (Molnar, et al., 2004). Additionally, the local people have limited access to the market because they manage their forests and harvest agricultural products from the forest only for subsistence purposes (Hinrichs, et al., 2008; Irvine, 2000). Therefore, the concept of community forestry (CF), CFM and some factors that make it successful will be further explained to provide more insight on how the Indo-TLAS will be implemented in the community forest.

2.2.1 Theory of CF and CFM

Before further explaining the CFM, the CF definition, policy development, principles, and features will be introduced. Hinrichs et al., (2008, p.8-9) defined CF based on a 1978 FAO publication entitled "Forestry for Local Community Development" as follows:

> *"Community forestry can be seen in any situation which intimately involves local people in a forestry activity. It embraces a spectrum of situations ranging from woodlots in areas which are short of wood and other forest products for local needs, through the growing of trees at the farm level to provide cash crops and the processing of forest products at the household, artisan or small industry level to generate income, to the activities of forest dwelling communities. It excludes large-scale industrial forestry and any other form of forestry which contributes to community development solely through employment and wages, but it does include activities of forest industry enterprises and public forest services which encourage and assist forestry activities at the community level. The activities so encompassed are potentially compatible with all types of land ownership. While it thus provides only a partial view of the impact of forestry on rural development, it does embrace most of the ways in which forestry and the goods and services of forestry directly affect the lives of rural people." (FAO, 1978 cited in Hinrichs et al., 2008, p.8-9).*

In Southeast Asia, two important policy strategies have emerged relating to CF policy development. The first policy strategy was that the design and measures of forest regulations clearly consider community rights and management and the second policy strategy was encouraging local governments' roles over forest management (Poffenberger, 2006). The progress of CF policy development was described by Poffenberger (2006, p. 63-64):

> *"Over the last two decades, CF has gained attention in many parts of Southeast Asia as a viable approach to public forestland management. Its growing popularity is reflected in the ratification of CF related laws, the adoption of supportive policies, the expanding investments of bilateral and multilateral agencies in CF programmes, the broadening engagement of NGOs and academic institutions in CF activities and the emergence of community-based forestry networks and associations" (Poffenberger, 2006, p. 63-64).*

Furthermore three principles, as a base line for CF, are described by Wasi (1997) as cited by Hinrichs et al., (2008, p.13) *inter alia:*

1) Rights and responsibilities over forest resources must be clear, secure and permanent.

2) Forests must be properly managed to guarantee a flow of benefits and added values.
3) Forest resources must be transferred in good condition to ensure their future viability.

Moreover, Glimour and Fisher (1998), as cited by Hinrichs et al., (2008) mentioned three common features in CF:

1) local community is the main actor that manage the forest
2) local community has a legal right to participate
3) different levels of local community participation

In response to these CF concept, governments and NGOs have recognized and support the emergence of CFM that combines two main parts of the community forest and local communities as the main owner or manager (Agrawal & Angelsen, 2009). CFM is a broad term that has many forms including "participatory forest management, joint forest management, forest co-management and community-based forest management" (Agrawal & Angelsen, 2009, p.202). Nowadays, on the international scale local communities manage and use their rights over at least 10% or 400 million hectares of total forest areas (White & Martin, 2002, cited in Agrawal & Angelsen, 2009). They manage their forests by combining multiple purposes, including "subsistence, cultural, and market production" (Irvine, 2000, p.1). Even though they can produce timber and non-timber forest products, their access to markets is still limited due to the lack of their skill and knowledge on timber marketing. Additionally, they sell agricultural products more frequently rather than timber products (Irvine, 2000).

2.2.2 The successful factors of CFM

To achieve successful CFM, many factors and variables (Table 3) have been identified and summarized from articles reviewed in the meta-analysis (Pagdee, Kim, & Daugherty, 2006). However, not all of these factors and variables significantly impact success CFM. Pagdee et al., (2006, p.33) stated that:

> *"Variables with significant influence on the success of CFM are tenure security, clear ownership, congruence between biophysical and socioeconomic boundaries of the resources, the effective enforcement of rules and regulations, monitoring, sanctioning, strong leadership with capable, local organization, expectation of benefits, common interest among community members, and local authority" (Pagdee et al., 2006, p.33).*

Other research suggested that the successful factors can be classified into four clusters (Agrawal, 2001; Dietz et al., 2003; Ostrom 2007, 2009; cited in Agrawal & Angelsen, 2009, p.204):

1) Biophysical (resource system)
2) User group related (local socio-political and economic)
3) Institutional arrangements (rules and accountability mechanism)
4) External environment (demographic, market, and macro-political context)

Table 3: Factors identified as important to the success of CFM

Successful factors	Successful variables
Property rights regimes	▪ Security of tenure to a resource. ▪ Clear ownership to use and manage a resource. ▪ Clearly defined boundaries of the community resources. ▪ Designated areas for specific use of the forest. ▪ Congruence between biophysical of the community and resources and social boundaries. ▪ Rules to regulate the use of forest products both in formal and

Successful factors	Successful variables
	informal forms.
Institutions	▪ Effective enforcement of rules/regulations to control rule breakers, and bring those rule breakers to justice. ▪ Monitoring methods to assess if institutional frameworks remain applicable to the community. ▪ Sanctions/penalties. ▪ Skilful and experienced administrative members with self-governing resource management. ▪ Strong leadership and effective local organizations with available financial and human resources.
Incentive and interests	▪ Value of the community resources ▪ Cost of CFM investment and institutional change. ▪ Expectation that benefits will accrue to villagers when participating in management programs. ▪ Forest dependency; as a source of community basic needs. ▪ Sharing of common interests that will lead a group of people to create community management.
Financial and human resource support from both local and external agencies	▪ Willingness of authorities and staff to implement CFM ▪ Financial and human resource support from NGOs, government agencies, international institutions, and individuals. ▪ Technical assistance from forestry officials to the community
Physical features of the forests	▪ Large vs. small-sized forest areas. ▪ Accessibility of the location, easy access to outside communities. ▪ High vs. low diversity in terms of forest types and ecological complexity. ▪ The current level of resource degradation. ▪ The trends of forest destruction are increasing, stable or decreasing. ▪ Predictability of resource flows.
Community features	▪ Large vs. small-sized communities. ▪ Location is in close proximity to the forest. ▪ Increasing population growth. ▪ Increasing levels of migration. ▪ Presence of conflict between local people and outsiders. ▪ Social-cultural diversity/heterogeneity. ▪ Economic conditions of community members. ▪ Community experience in cooperative management. ▪ Traditional practices to use and harvest forest products.
Level of participation	▪ When the majority of community members participate in a management program, the program seems to become more successful.
Degree of decentralization	▪ Local recognition: 1) Legal recognition of local group 2) Informal recognition of local group 3) Acceptance of local group

Successful factors	Successful variables
	4) No local recognition. ▪ Clear procedures for exercising local controls. ▪ Relocation of administrative function to local groups (local responsibility). ▪ Relocation of administration budget resources (local authority).
Technology and market influence	▪ Technological changes. ▪ Higher market demands for forest products and increasing economic value of some forest products. ▪ Introduction of infrastructures. ▪ Instability and fluctuation of market conditions.

Source: Adapted from Pagdee et al., (2006, p41-42)

Based on the successful factors of CFM, not all of factors will be used in this study. First, the five factors that will be used are the property right regimes, institutions, incentive & interests, financial & human resource support, and level of participation. These factors will help the researcher to discuss the supporting and inhibiting factors in implementing the Indo-TLAS in the community forest. Second, the factors of community features, in particular the traditional practices to use and harvest forest products, will explain how the effects of the Indo-TLAS against the timber harvesting and trading in the community forest. Lastly, the factors of technology and market influence will be used to discuss the target-group effectiveness.

2.3 Environmental policy evaluation

As the purpose of this study is to evaluate the implementation of the Indo-TLAS in the certified community forest as well as to assess the advantages and disadvantages of the Indo-TLAS for the local communities, the concept of environmental policy evaluation will be used. Therefore the framework of modified EEA policy evaluation and its operationalization to evaluate the Indo-TLAS implementation in community forestry will be further elaborated.

2.3.1 The framework of modified EEA policy evaluation

Before going into detail on the modified EEA policy evaluation framework, the main characteristics of the environmental problems, the concepts of evaluation, and the types of environmental policy evaluation will be briefly introduced. Mickwitz (2003, p.416) summarized the main characteristics of the environmental problems, including the close relation between the "features of the environmental problems and the characteristics of our knowledge about these problems". These key characteristics can be seen in table 4. Furthermore, Gysen et al., (2002, p.10) add two other characteristics: "the irreversibility and/or the existence of thresholds, and the fact that the sources of environmental problems are often diverse". Moreover, the concept of 'evaluation' has been defined by Scriven (1991, p.139) cited in Mickwitz (2003, p.420):

> *"The key sense of the term 'evaluation' refers to the process of determining the merit, worth, or value (emphasis in the original) of something, or the product of that process." (Scriven, 1991, p.139 cited in Mickwitz, 2003, p.420).*

Another definition of 'evaluation' by Vedung (1997, p.3) cited in Mickwitz (2003, p.420) is described as follows:

"Evaluation minimally as careful retrospective assessment of the merit, worth and value of administration, output and outcome of government interventions, which is intended to play a role in future, practical action situations." (Vedung, 1997, p.3 cited in Mickwitz, 2003, p.420).

Table 4: Summary of the key characteristics of the environmental problems

Features of the problems	Features related to the knowledge
▪ They are complex ▪ They have long time frames ▪ They concern geographically remote areas ▪ Their consequences and causes are unequally distributed	▪ They have been formulated as problems, largely by scientists ▪ They involve huge uncertainties ▪ They involve stakeholders with different belief systems and conflicting goals

Source: Adapted from Mickwitz (2003, p.417)

Regarding the features of environmental problems and the nature of evaluation, there are three types of evaluation that can be applied to environmental policy *inter alia* (Mickwitz, 2003):

1) Ex-ante evaluation, conducted before policy instruments, is introduced to assess the possible impacts.
2) Ex-post evaluation, conducted after policy measures have been taken, assesses whether its measures have achieved the environmental goals.
3) Recently introduced policy instrument (RIPI) evaluations that are conducted soon after policies are introduced, when there are some (but not all) effects.

RIPI evaluation is used in this study because it is very useful if policy instruments are changed after a short time and if it has not performed well regard to its policy design and objectives. As Mickwitz (2003, p.421) stated, "The earlier it is noticed the better". This means that if the ineffectiveness of policy instruments is noticed at an earlier stage, it will be beneficial for governments or related stakeholders to improve or change the previous policy instruments. Furthermore, the environmental policy framework used in this study is the Modified EEA Policy Evaluation Framework (Figure 5). It can be used to evaluate whether objectives of a policy intervention are met. This framework includes four different types of effectiveness. These are the institution, target-group, impact, and societal (Gysen, et al., 2002). Institutional effectiveness (outputs) is the easiest to monitor and evaluate whereas target-group effectiveness (outcomes) is much harder but crucial for policy evaluation. However, impact effectiveness is the hardest to evaluate because of complex causalities and its long and uncertain time-frames for effects (Gysen, et al., 2002).

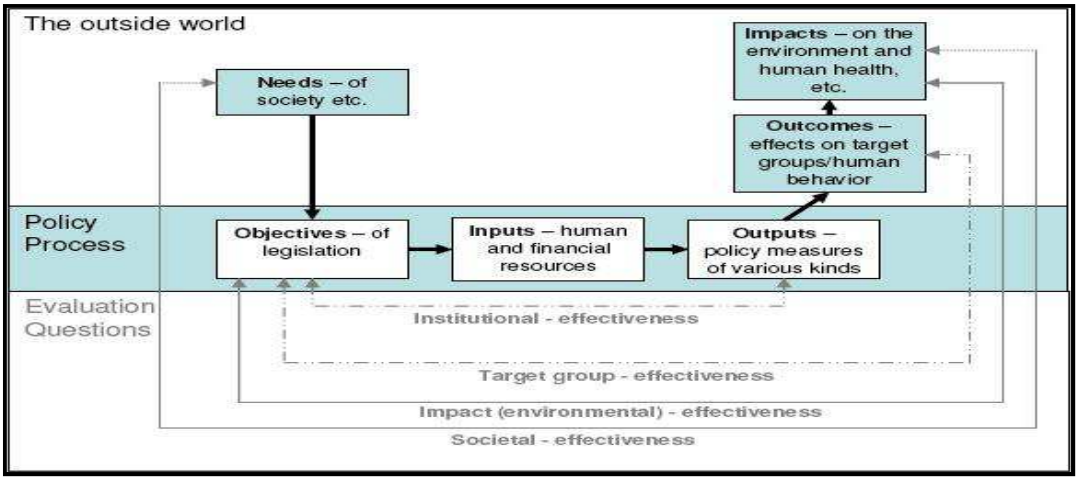

Figure 5: Modified EEA Policy Evaluation Framework (adapted from Gysen et al., 2002, p.5)

Gysen et al., (2002) have further elaborated the four different types of effectiveness as follows:

- Institutional effectiveness: "The extent to which the output of the policy matches the objectives of the policy. The output is defined as the tangible results of a measure. Output has a rather short term dimension. Outputs can be noticed shortly after the implementation process of the policy instrument or even during the process." (Gysen et al., 2002, p.5).
- Target-group effectiveness: "The degree to which the outcome, defined as the response of the target groups to the output of the policy corresponds with the policy objectives. Where the output effects can take place in the short term, outcome effects are most likely to occur in the middle/long term. We use a broad conceptualisation of target group response or behaviour. Behaviour can be anything from individual behaviour, to group behaviour and societal activities." (Gysen et al., 2002, p.6).
- Impact effectiveness: "The impact effects or impact of a policy is often only visible in the long term. In the example of environmental policy, impact effects can be categorised as part of the state of the environment. Often these effects are expressed in terms of quality. Better air quality could be a possible impact effect if the policy was aimed at reducing the unauthorised emissions of air pollutants" (Gysen et al., 2002, p.6).
- Social effectiveness: "Societal effectiveness corresponds with both the relevance and utility question. Societal effectiveness addresses the question of whether or not the impact (or impact effects) satisfies the societal needs. In other words, is the effect a contribution to broader societal objectives? In the case of environmental policy, the dominant policy discourse or framework is currently sustainable development. This means that the effects can be tested on their sustainability calibre" (Gysen et al., 2002, p.6).

2.3.2 Evaluation of the Indo-TLAS implementation in the community forest

Due to the young age of the Indo-TLAS policy implementation in the community forest, only two concepts of effectiveness will be used in this study: institutional and target-group effectiveness. The impact and societal effectiveness will not be assessed in this study due to the lack of data on the effectiveness since the policy of the Indo-TLAS was only implemented 3 years ago. Before assessing institutional and target-group effectiveness, the policy design of the Indo-TLAS in the community forest should first be studied. Some aspects of these include:

1) Definition, objectives and legal bases of the Indo-TLAS
2) Scheme, components and verification procedures of the Indo-TLAS
3) Standard of the Indo-TLAS in the community forest

Furthermore, the operationalization of institutional effectiveness depends whether the policy measures of the Indo-TLAS in the community forest have been consistent with the policy design. The policy measures of the Indo-TLAS in the community forest are as follows:

1) Verification feasibility study (preparation)
2) Forest management consultancies (facilitation)
3) Verification assessment inspection (verification)
4) Verification monitoring inspection (surveillance)

Moreover, the operationalization of target-group effectiveness depends on whether the Indo-TLAS in the community forest influenced the community behaviour in terms of timber legality verification. In assessing the effects of the Indo-TLAS on community behaviour the following elements will be assessed:

1) Forest management and administration
2) Production and marketing
3) Community institutions and external relation.

2.4 Research conceptual framework

This study will be based on the understanding that the policy evaluation of the Indo-TLAS's implementation in the community forest used two concepts of institutional and target-group effectiveness. Before assessing those two concepts, the policy design, measures and effect of the Indo-TLAS on local communities must first be studied. Furthermore, advantages, disadvantages and suggested improvements of the Indo-TLAS in the community forest will be explored. Therefore, the link between the Indo-TLAS as a form of hybrid governance in the global forest regime and its local practice will be found. The research conceptual framework in this study is presented in figure 6.

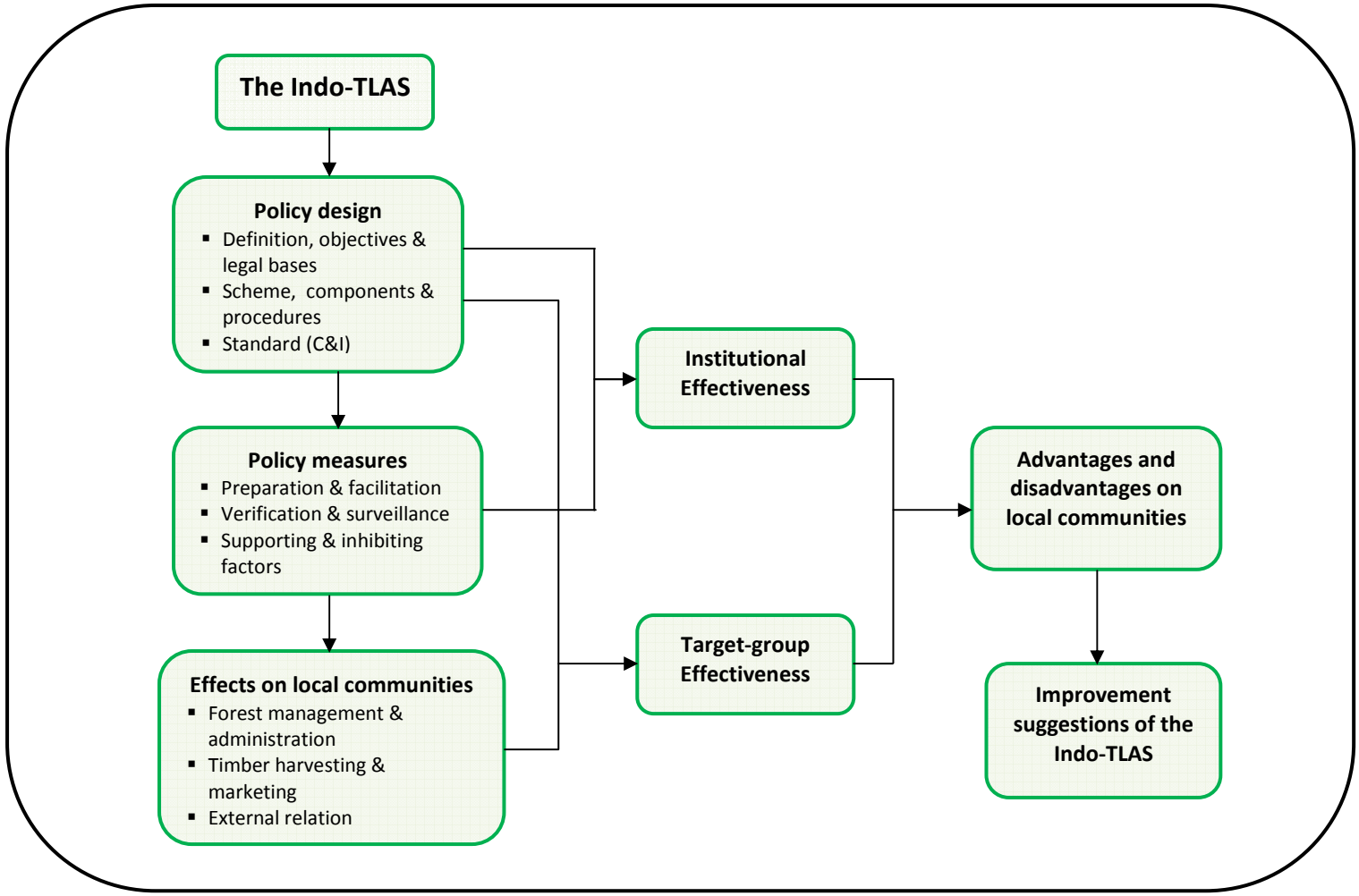

Figure 6: Evaluation of the implementation of the Indo-TLAS in the community forest

CHAPTER 3: POLICY DESIGN & MEASURES OF THE INDO-TLAS IN THE COMMUNITY FOREST

The purpose of this chapter is to present the main findings of the implementation of the Indo-TLAS in the first-three certified community forests. These are GJM, KWML, and APHRW, which are located in Blora, Gunungkidul, and Wonosobo districts, respectively. Firstly, the development of the Indo-TLAS and community forests in Indonesia will be briefly introduced. Furthermore, the policy design of the Indo-TLAS in the community forests will be described. The last section will present the policy measures of the Indo-TLAS in the community forests in Blora, Gunungkidul, and Wonosobo.

3.1 Development of the Indo-TLAS and community forest in Indonesia

The first section presents the development of the Indo-TLAS in Indonesia by explaining its driving forces and historical milestones. Previous forest verification systems in Indonesia will also be presented to show the shift from a bureaucratic state to hybrid governance. At international level, the relation between the Indo-TLAS and FLEGT-VPA Action Plan will be described. Furthermore, a brief overview of community forest development in Indonesia will be described in the last section, which includes the development of community forest in Indonesia and the existing community forests that have been verified under the Indo-TLAS scheme until 2013.

3.1.1 Development of the Indo-TLAS in Indonesia

The driving forces of the Indo-TLAS development in Indonesia

The development of the Indo-TLAS was triggered by the common needs to combat illegal logging and pursue good forest governance in Indonesia. One of the main causes of illegal logging was the adoption of a decentralization system, which led to a shift in the forest management authorities from central to local governments (Palmer & Engel, 2007). This included an income shift from permits, logging and reforestation fees (Resosudarmo, 2004). Although, the permits issued by the Regent were mainly for small forest concessions (Casson & Obidzinski, 2002), they also issued permits for medium and large concessions (Resosudarmo, 2004). Unfortunately, these permits weren't implemented well and became "a formalization" for illegal logging activities (Brown, et al., 2009; Casson & Obidzinski, 2002). The following statement shows the relation between the decentralization era and illegal logging activities:

> *"Since 2000, the decentralisation era has been taking place in the Indonesian political and administrative system and it has had negative impacts on forest management. The permit authority of forest concessions had been granted to the local government, which had a lack of experiences and knowledge on sustainable forest management. Thus, these permits were abused both by local governments and the forest concessions that allowed many forest concessions to stock their wood supplies from illegal sources" (R48, 2013).*

In response to the serious threat of illegal logging and trading, many state and non-state initiatives have appeared to combat it (Brown, et al., 2009). At the national and international levels, state initiatives include the Presidential Instruction of the Republic of Indonesia no. 4/2005 on combating illegal logging in state forests and the distribution of timber throughout the country, as well as several MoUs against illegal logging in collaboration with the United Kingdom, China, Japan, the United States of America, and the EU (Brown, et al., 2009; Setianingsih, 2009). In addition, there were also three types of Indonesian forest verification systems to reduce illegal logging and trading. These verification systems were "timber administration, mandatory compliance certification and

export endorsements" (Brown et al., 2009, p.177). Furthermore, these systems were regulated under the authority of the MoF and are described by Brown et al., (2009, p.177) in figure 7.

Timber administration, which is called *Penatausahaan Hasil Hutan* (PUHH) in Bahasa Indonesia, consists of two main components: first, permit documents for the transportation, namely *Surat Keterangan Sah Hasil Hutan* (SKSHH) of state timbers, and *Surat Keterangan Asal Usul* (SKAU) for community timbers (Brown, et al., 2009). Second, "the stumpage fees" (*Provisi Sumber Daya Hutan*/PSDH) and "reforestation levies" (*Dana Reboisasi*/DR) were frequently collected only for state timber and non-timber products (Brown et al., 2009, p. 176). The authority of this system was delegated to local governments, both the Provincial and District Forestry Services (Brown, et al., 2009).

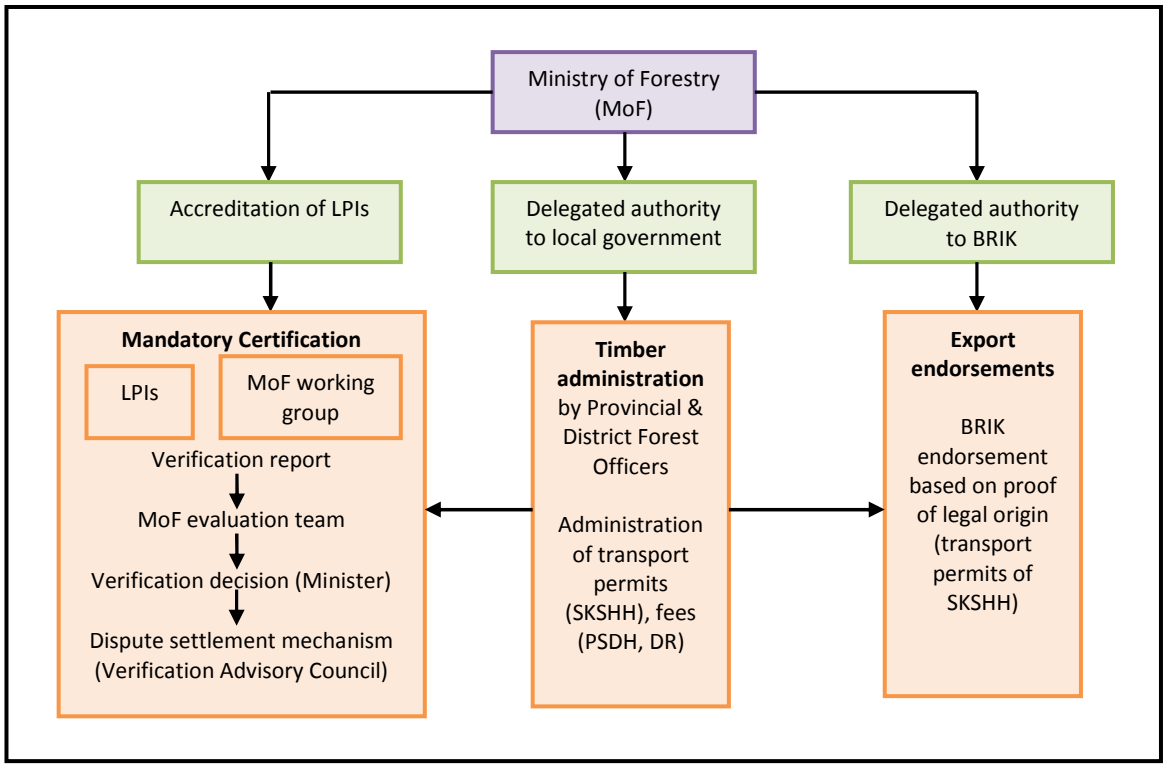

Figure 7: Previous forest verification systems in Indonesia (adapted from Brown, 2009, p.177)

Furthermore, mandatory compliance certification has become a requirement for the extension of timber concession licenses since the rate of illegal logging and trading has significantly increased. This system adapted the principles of forest certification that were established by LEI and outsourced management duties. The outsourced auditing system consisted of the "independent assessment bodies (LPIs), the MoF evaluation team, and the verification advisory council" (Brown et al., 2009, p.180). The LPIs were accredited by the MoF and performed the assessment of forest concessions and timber industries based on mandatory standards and assessment guidelines. Meanwhile, a MoF evaluation team was formed to assess LPIs assessment reports and provide information to the Minister of Forestry on whether or not the audit report could be approved. The last component was the verification advisory council, which was established to avoid conflict over assessment reports and certification results (Brown, et al., 2009).

The last system is export endorsement, which could only be conducted by the timber industry revitalization board (*Badan Revitalisasi Industri Kehutanan*/BRIK). This board was established through a joint-decree between the MoF and Ministry of Industry and Trade on 13 December 2002. According

to the decree, the members of BRIK were timber industries and BRIK had full authority in verifying the SKSHH of timbers, which were to be exported abroad, as a requirement for export endorsement (Brown et al., 2009, p. 180). This endorsement aimed to ensure that only legal timbers could be exported (Brown, et al., 2009).

Unfortunately, many of these state initiatives didn't deter the illegal loggers and traders owing to several key constraints, such as a lack of independence and transparency in forest sector audits, lack of physical inspections, and potential conflict of interest in export endorsement (Brown, et al., 2009). Consequently, many of the non-state initiatives have internationally appeared to respond to the state failures by establishing the scheme of certification and verification. The verification schemes are Verification of Legal Origin, Verification of Legal Compliance, the Tropical Forest Foundation, and the WWF Global Forest Trade Network (Brown, et al., 2009). Meanwhile, the certification schemes are Forest Stewardship Council (FSC), Sustainable Forestry Initiative of the American Forest and Paper Association, and Pan European Forest Certification Council (Meidinger, 2003; Molnar, et al., 2004).

The first emerging of forest certification in Indonesia was in 1990, when Perum Perhutani (forest state company) was certified by Smart Wood (independent certification body) for sustainable teak forest management in Java Island. Furthermore, the government of Indonesia established the Indonesian Eco-label Institute (LEI) in 1993 as their own voluntary forest certification scheme and this officially became a foundation in 1998. In response to the FSC scheme, there was a Joint Certification Protocol between LEI and FSC in which FSC should use criteria and indicators of both LEI and FSC schemes (Muhtaman & Prasetyo, 2006). However certified forest areas under the voluntary scheme (Table 5) in Indonesia until June 2012 accounted for less than 2% of all forest areas, whereas the total forest area of 88,71 million ha in 2009 (Sumargo, Nanggara, Nainggolan, & Apriani, 2011).

Table 5: Forests and timber industries certified by LEI scheme until June 2012

Type of forest certification	Total Area/Industry
Sustainable natural forest	411,690 Ha
Sustainable community based forest management (PHBML)	26,719 Ha
Sustainable plantation forest	970,112 Ha
Total of certified forests	1,407,542 Ha
Chain of Custody	6 industries

Source: LEI's certified forests (LEI, 2013a)

As participation in these forest certification schemes is voluntary it is difficult to overcome the problem of illegal logging and trading in Indonesia. Therefore Indonesia has developed the Indo-TLAS as a credible, transparent, multi-stakeholder system to ensure the legality of harvested and traded timbers. This new forest policy approach has emerged through a coalition between state and non-state actors. This is known as "hybrid governance" (Arts & Buizer, 2009; Lemos & Agrawal, 2006). The reasons for the formation of the Indo-TLAS development as well as the emergence of the hybrid forest governance are as follows:

1) The problem of illegal logging and trading.
2) The failure of state and non-state initiatives to combat illegal logging and trading.

The emergence of a hybrid approach in forest governance is described by a forestry academic in the following statement:

> *"Voluntary forest certification, the non-state market driven (NSMD) policy, emerged 20 years ago. The state failures in managing the forest became the main factor in this policy emerging.*

However, NSMD policy could not fully achieve comprehensive forest governance and sustainable forest management. This is why another approach is being used, which I call the hybrid approach. The hybrid approach is similar to the state-market driven policy, as it is pushed by the market but still regulated by the state. The recent Indo-TLAS policy uses the hybrid approach. Through this approach, the state has tried to regain the power that has long been in the hands of non-state actors, and involve itself in the policy development process" (R53, 2013).

Historical milestones of the Indo-TLAS development

The development process of the Indo-TLAS has been developing since the Bali Declaration on Forest Law Enforcement and Governance (FLEG) was held in Indonesia, in September 2001. At that time, all Ministers of East Asian countries had agreed and committed for eradicating illegal logging and trading as well as pursuing good forest governance. However, the follow up actions from each country were diverse. For instance the improvement of law enforcement strategies, bureaucratic reform, enhanced monitoring and transparency of FLEG implementation differed between each country. (Pescott & Durst, 2010). Following is the Indonesian MoF officer's statement describing international concern and the Bali Declaration for combating illegal logging:

"International concern has risen in combating illegal logging, and the tackling of this began through the Forest Law Enforcement Governance (FLEG) conference in September 2001. The Ministers from the East Asian Region attended the conference and agreed on the Bali Declaration to combat illegal logging" (R48, 2013).

The Indonesian government's follow up to this was to develop a timber legality standard. This was initiated by many stakeholders (state and non-state actors). Simultaneously, the EU FLEGT emerged as one of international initiatives to combat illegal logging and improve good forest governance (Pescott & Durst, 2010). Therefore a MoU between Indonesia and the United Kingdom was signed in 2003 as a first step towards FLEGT-VPA to ensure that only legal timber was imported into the EU markets. They also agreed to establish TLAS in partner countries. These actions were described by the MoF's officer as follows:

"Following the Bali Declaration, on the one hand, a multi-stakeholder process was used by the government to formulate the definition of legal timber and establish a credible system related to sustainable forest management. On the other hand, the EU performed FLEGT-VPA as a voluntary partnership agreement to ensure that only legal timber is imported into the EU. Based on these common visions negotiations between Indonesia and the EU had been heading towards a FLEGT-VPA. A system that ensured the legality and credibility of timber was developed and this was called the Indo-TLAS" (R48, 2013).

Indonesia and the EU started VPA negotiations in January 2007, but the negotiation process became more intensive after June 2009 when the Indo-TLAS came under government regulation under the Permenhut No. P.38/Menhut-II/2009 that explained the performance of PHPL and VLK (MFP, 2013b; Prasetyo, et al., 2012). From March 2007 to April 2011 there were three Senior Official Meetings, seven Technical Working Group meetings, and seven Joint Expert Meetings to conclude negotiations on the VPA legal text and its annexes. The efforts and hard work of many stakeholders were successful. In the 7th Technical Working Group that was held on the 14th April 2011 in Brussels, Indonesia and the EU concluded FLEGT-VPA negotiations with a complete set of the final VPA legal documents and annexes. These documents became the main guidelines to implement the FLEGT-VPA (MFP, 2013b).

Furthermore the Senior Official Meeting concluded with a Joint Statement from the FLEGT-VPA, which was signed by both parties stating their intention to start the implementation phases. The

commitment of both parties was further strengthened with the signing of a Joint Statement on illegal logging by the MoF and EU Trade Commissioner in Jakarta on 4th May 2011. Indonesia started the implementation of the Indo-TLAS in September 2010 with the commencement of the verification program and capacity building. Furthermore, based on the VPA, FLEGT licensing will be first issued in January 2013, once both sides agree that the requirements for FLEGT licensing have been fulfilled, and in anticipation of implementing EU Timber Regulations (MFP, 2013b). These historical milestones are described by MFP (2013b) in table 6.

Following the progress of the FLEGT-VPAs at the international level, in 2012 six countries were employing the system development phase. Ghana was the first country to sign the FLEGT-VPA in 2009 and ratify it in 2010. Meanwhile, the Democratic Republic of Congo and Cameroon signed it in 2010, following by the Central African Republic and Liberia in 2011. The most recent ratification came in the Democratic Republic of Congo in February 2013. Additionally Indonesia became the first Asian country to start negotiations in March 2007 and reached an agreement on the FLEGT-VPA with the EU in May 2011. Furthermore, six countries including the Democratic Republic of Congo, Gabon, Guyana, Honduras, Malaysia, and Vietnam are negotiating with the EU and around 15 countries from Africa, Asia, and Central and South America have expressed their interest in the FLEGT-VPA (EFI, 2012).

The process of the development of the Indo-TLAS in Indonesia did not include much research input. Inversely the Ghanian-TLAS performed scientific studies before and during the establishment of the legality verification system (Luttrell et al., 2011, cited in Wiersum & Elands, 2012). As a result, Ghana has identified that the legality verification system should consider the national and local markets instead of just the international markets, as well as the importance of introducing "social safeguards" in order to reduce the negative effects of the TLAS implementation on local communities (Beeko & Arts, 2010; Owusu et al., 2010; Ramcilovic-Suominen et al., 2010; cited in Wiersum & Elands, 2012, p.3). Meanwhile, the development process in Indonesia only focused on how to govern legal timber, reduce illegal logging, export legal timber (Wiersum & Elands, 2012), comply with the required documents and achieve the balance in the supply and demand of timber (Obidzinski et al., 2007, cited in Wiersum & Elands, 2012). However, little attention was paid to "the small-scale logging and internal market" (Tacconi et al., 2004, cited in Wiersum & Elands, 2012, p.3).

Table 6: Historical milestones of the development of the Indo-TLAS

Year	Events/Activities related to the Indo-TLAS development
2001	Bali Declaration on Forest Law Enforcement and Governance (FLEG).
2002	▪ Stakeholders initiated the development of timber legality standards. ▪ Various dialogues for mutual understanding in combating illegal logging.
2003	▪ Stakeholders intensively initiated multi-stakeholder processes in defining the legality of timber in auditing forestry enterprises. The early stage of these processes was facilitated by civil society organizations, namely: Telapak, Environmental Investigation Agency (EIA), and The Nature Conservancy (TNC). ▪ The Government of Indonesia signed an Agreement with the Government of the United Kingdom in combating illegal logging. ▪ Action Plan of the Forest Law Enforcement Governance and Trade (FLEGT) of the EU. ▪ The Government of Indonesia carried-out discussions in planning timber legality standards.
2005	▪ Advanced development and formulation of standard and criteria for legality of timber from various types of timber legality standards, with LEI facilitating these developments. ▪ The EU adopted the Regulation No. 2173 on establishing licensing schemes for imports of timber through the VPA.

Year	Events/Activities related to the Indo-TLAS development
2006	▪ Reformulation of timber legality standards and field tests. ▪ Development of the formulation of the definition for timber legality had gained expanded participation between 2006 and 2008. These processes involved government institutions, NGOs and industries, at the national and provincial levels.
2007	▪ Development of system and improvement of timber legality standards. ▪ Joint Statement over the FLEGT VPA between the Minister of Forestry (MS Kaban) with the EU Commissioner for Environment (Stavros Dimas) and the Commissioner for Development Cooperation (Louis Michael). Indonesia and the EU started negotiations over the VPA. ▪ Between March 2007 and April 2011 there were three Senior Official Meetings. ▪ Between 2007 and 2009 the timber legality verification system was finalised meaning that it became mandatory.
2008	Between 2008 and 2011 there were seven Technical Working Group meetings organized.
2009	▪ Minister of Forestry, MS Kaban, issued Regulation No. P.38/Menhut-II/2009 concerning the performance assessment on standards of production, forest management and timber legality verification. ▪ Dialogue for the VPA had increasingly become more intensive with the issuance of the Ministry of Forestry Regulation No. P.38/Menhut-II/2009. Until 2011, there had been seven Joint Expert Meetings organized.
2010	EU Parliament endorsed the Timber Regulations that prohibit the trade of illegal timber and its derivatives. This Regulation came into force in March 2013.
2011	▪ Declaration of support towards the trade of legal timber from various furniture associations, exporters, and forestry industries. ▪ Joint Statement on the FLEGT-VPA during a Senior Official Meeting in Brussels. ▪ The initialling of the VPA between the Minister of Forestry Zulkifli Hasan and Karel de Gutch, Trade Commissioner for the EU. ▪ Minister of Forestry formalized the V-Legal logo for legal timber and timber products, and handed-over the Timber Legality Certificates for five privately-owned forests. ▪ Amendment of the Minister of Forestry No. P.38/Menhut-II/2009 with P.68/Menhut-II/2011
2012	▪ As the first one for furniture industries, PT-Djawa Furni Lestari received SLK. ▪ Indonesia continued to move forward, on 1 August 2012 the Legality Information Unit (Timber Legality Information System/SILK) was launched. The management centre of the Information Unit is hosted at the Directorate General of Forest Utilization, Ministry of Forestry. The SILK System, among others, will serve the clarifying purposes for the respective Customs of the importing countries and their stakeholders. ▪ Indonesia carried-out a test run of legal timber export to the EU, along with the issuance of the Ministry for Trade Regulation No. 64, 22 October 2012. ▪ The Ministry for Forestry revised the Regulation No. P.38/2009 with Regulation No. P.45/2012.
2013	▪ Since the operation of the LIU in January 2013 until end of February 2013, the issuance of V-Legal documents as part of export permits for timber products had been successfully facilitated, covering more than 11.000 documents for 124 destination countries (24 of these are countries within the EU), 41 embarking harbours and more than 500 disembarking harbours. ▪ A joint-press release was issued by the MoF and EU to fill the gap between the Indo-TLAS starting in January 2013 and the VPA coming into force later in the year. This press-release was aimed at boosting the bilateral timber trade by using the V-Legal document that assures the legality of timber products from the point of harvesting to transporting, trading and processing. *)

Year	Events/Activities related to the Indo-TLAS development
	▪ A joint-team of Indonesians and Europeans performed assessments on the Indo-TLAS. This joint-assessment is an important part in the process leading to the signing of the VPA between Indonesia and the EU. There are five elements that the team needed to scrutinize, namely the definition of legality, supply chain control, verification procedures, export licenses, and independent monitoring.

Source: Adapted from MFP (2013b) and *) personal interview (R48, 2013)

The EU Proposal of Timber Legality Verification

The development of legality verification was growing rapidly in Europe since 1998, and the EU Council's Resolution on a "Forestry Strategy for the European Union" was used as a basis to endorse the FLEGT Action Plan 2007-2011 and to adopt FLEGT Regulation. The short-term aim of FLEGT Action plan was to combat the illegal harvesting and trading of timber and prevent illegal timber entering into EU countries, while the long-term aim is to achieve sustainable forest management. Therefore, the EU prepared voluntary partnership agreements, so-called VPAs, with timber exporting countries to encourage compliance with their own forest laws and to establish TLAS within the national context. Instead of establishing the VPAs with the timber exporter countries the EU Timber Regulations were proposed by the Commission in 2008. They were adopted by the EU Parliament and Council through the measurement of "due-diligence" procedures to ensure that the timber that was distributed within the EU market was legal (EFI, 2012; EU-Commission, 2012; Rayner, Buck, & Katila, 2010). The EU also employed "green public procurement policies" that ensured legal timber and timber products came from sustainable managed forests. The EU countries that implement these policies included Belgium, Denmark, France, Germany, the Netherlands, and the United Kingdom (EU-Commission, 2012). The nature of the VPAs is voluntary for timber exporting countries, but when it came into force it became legally binding for both the EU and partner countries. More detail objectives of the FLEGT-VPAs are described below (adapted from EFI, 2012):

1) The VPAs develop a definition of legal timber, ensure that existing or new forest laws that regulate legal timber and ascertain its laws, consider social, economic, and environmental aspects.
2) The VPAs facilitate the multi-stakeholder process to develop a common understanding of forest rights including the involvement of private sectors and civil society.
3) The VPAs ensure the establishment of the TLAS to prevent illegal timber entering the EU market. The EU Commission and EU Member States must support the implementation of this system.
4) The VPAs can assist partner countries in implementing their development goals and promoting sustainable forest management, which have advantages for local communities.

The main target of the VPAs is to implement the TLAS in each partner country, and this consists of five key elements: the "definition of legal timber, control of timber supply chains, verifying compliance, issuance of FLEGT license, and independent audit" (EFI, 2012). Moreover, the focused measurements of the FLEGT Action Plan include (adapted from EFI, 2012):

1) Support the countries that export timber to the EU and combat illegal logging
2) Promote the legal timber trade by developing and implementing the VPA in EU and partner countries
3) Promote public procurement policies and provide technical guidance
4) Support private sector initiatives in terms of good forest governance
5) Encourage the safeguarding of financing and investment in the forest sectors
6) Promote the use of existing laws or adopt new legislation
7) Provide support to overcome conflict timber in partner countries

Wiersum & Elands (2012) further explained that the FLEGT-VPAs are not only addressing the implementation of TLAS, but also pursuing "good forest governance". The main challenge to employ

the FLEGT-VPAs is how to integrate the concept of sustainable forest management and legality verification within the TLAS development. There are three factors that caused the weakness of the VPAs (Rayner, et al., 2010):

1) The main purpose is only to combat illegal logging and trading.
2) The application of the VPAs in each partner country has a different system depending on their own forest regulations.
3) There is no direct effect on non-parties due to the nature of the VPAs as a bilateral agreement, thus the original sources of imported timber in the EU that comes from a non-party state cannot be verified.

Considering the VPAs' weaknesses, the impacts of the verification system have to be assessed in terms of the intended effects and the extent to which the system supports poverty alleviation (Brown, et al., 2009).

3.1.2 Development of community forests in Indonesia

According to the concept of CFM, community forests in Indonesia employ the form of community-based forest management (CBFM) that can be defined as "a forest management approach in which a local community has control over resources and defines the roles, responsibilities, rights and benefits for other parties" (Hinrichs et al., 2008, p.12-13). The term *community forest*, which is called "*hutan rakyat*" in Bahasa Indonesian, has been used since 1970s when national government conducted reforestation projects (Darusman & Hardjanto, 2006). The definition of a community forest is a forest which is privately owned and managed by the local communities to fulfil their livelihoods in a sustainable way considering forest management, products, and services (Bass, 2001; Darusman & Hardjanto, 2006). According to the government, a community forest is a forest that grows on land that has a minimum area of 0.25 ha, where the cover percentage of timber plantation and other crops is more than 50% (MoF, 2004). Moreover, a community forest can be defined as a forest that is developed on private land, managed and used by families to improve their quality of life, fulfil their future needs, provides income, and is environmentally sustainable. So, the forest land was privately owned by each family and then they joined the community association or FFG to perform both individual and communal forest management (Awang, Andayani, Himmah, Widayanti, & Affianto, 2002).

The timber production in the community forests in Indonesia has not been the main income for local livelihoods. In general, the local communities plant trees aimed for the property saving rather than for their daily income because trees do take long time to be harvested. Trees are commonly used for the conservation area and are planted in the empty spaces of their boundary land, marginal land, and partly monoculture cultivation (Darusman & Hardjanto, 2006). Furthermore, Wahana Lingkungan Hidup (2004) cited in Rahmawaty (2004) presents the principles of community forests in Indonesia as follows:

1) The main actor who manages the forest is the community/local people/indigenous people.
2) Forest management institutions are established, conducted, and controlled directly by the community/local people/indigenous people.
3) The community forest has a clear boundary and legal status.
4) Interaction between the community/local people/indigenous people and their environment is direct and close.
5) The ecosystem is the most important part of their local livelihoods.
6) Local knowledge plays an important part and is the main basis of their policies and the forest management system, rather than the use of modern knowledge for enrichment.
7) Local technology is mainly used, as well as adapted technologies within the local communities.
8) The production scale is not restricted, except by the principles of sustainability.

9) The economic system is based on common prosperity.
10) Biodiversity underlies field variations such as the species, and genetically the patterns of cultivation, utilization of resources, social systems, and economic systems.

Awang et al., (2002) stated that the characteristics of local communities are dynamic. Therefore the local communities are often called a dynamic society. They also have a group or an association which is a manifestation of their common agreement and interest. Thus many types of local groups and associations depend on this interest. The forest farmer group (FFG), which is called *"kelompok tani hutan rakyat"* in Bahasa Indonesian, was established as a forum for local people that have a common interest in forest management. According to the government the definition of FFG is an association of farmers who manage their own forest and nature resources based on unity, harmony, professionalism and interest equality. They also cooperate with each other to increase forest farmer production and their prosperity (MoF, 2004). Furthermore, the common positive features of FFG are as follows (Awang, 1995):

1) FFG as a vehicle to get to know each other
2) FFG has regular meetings
3) FFG has a common interest among members
4) FFG has an organization structure and clear task division among members
5) FFG has strong social solidarity among members
6) FFG has work plans which have been discussed together
7) FFG has a set of rules which have been agreed by all members

The community forest has great potential, both in terms of community timber and forest farmers, as its production is able to supply the timber industries. The community forest areas in Indonesia have increased rapidly by about 1,568,415.64 ha in 2003 (Darusman & Hardjanto, 2006) and reached 7,995,630.3 ha in 2012[3] (MoF, 2012a). The distribution of community forest areas in Indonesia and Java Island can be seen in the figure 8 and 9, respectively (MoF, 2012a).

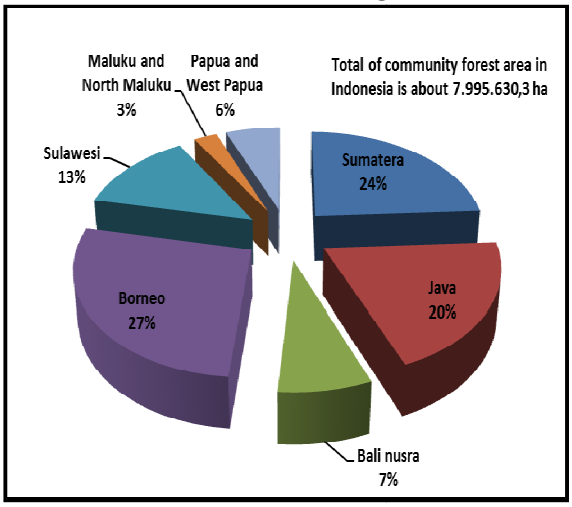

Figure 8: Distribution of the community forest area in Indonesia in 2012 (MoF, 2012a)

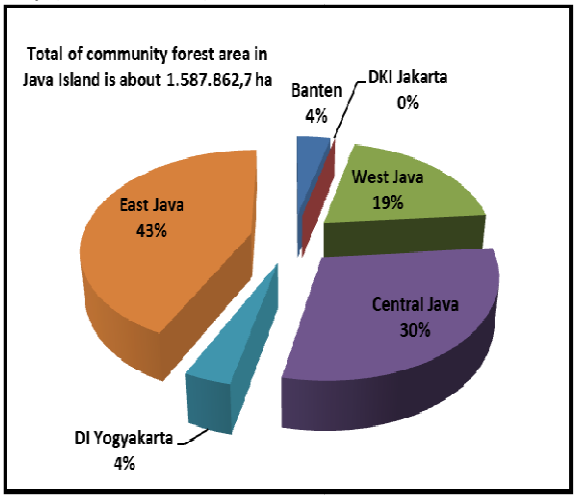

Figure 9: Distribution of the community forest area in Java Island 2012 (MoF, 2012a)

[3] The high increase in community forest areas was triggered by the targets of the long-term forestry development of 2006-2025. One of these targets was to increase the area of community forests by giving the rights of the customary land to the indigenous people, therefore providing the capacity of forest planning and utilization for the local people. It also gave the opportunity to develop the industries and markets for community forest products and to develop the policies that support community forest management and ensure the markets for the small-scale and medium timber enterprises (P3HT, 2007).

The need for furniture and firewood, especially on Java Island, has largely been supplied by the community forest. However, local people are still employing conservative logging, which is called *"tebang butuh",* so a tree will be cut down if it is needed. (Awang, et al., 2002; Darusman & Hardjanto, 2006). Hardjanto (2003) cited in Darusman & Hardjanto (2006) that the demand for community wood came from local markets, exporting medium industries and capital-intensive large industries. In 2003, the estimation of the amount of community timber in Indonesia was about 39,564,003 m^3 (Darusman & Hardjanto, 2006) and by 2010 this had increased to 55,727,869 m^3 on Java Island alone. This is presented in figure 10 (MoF, 2010).

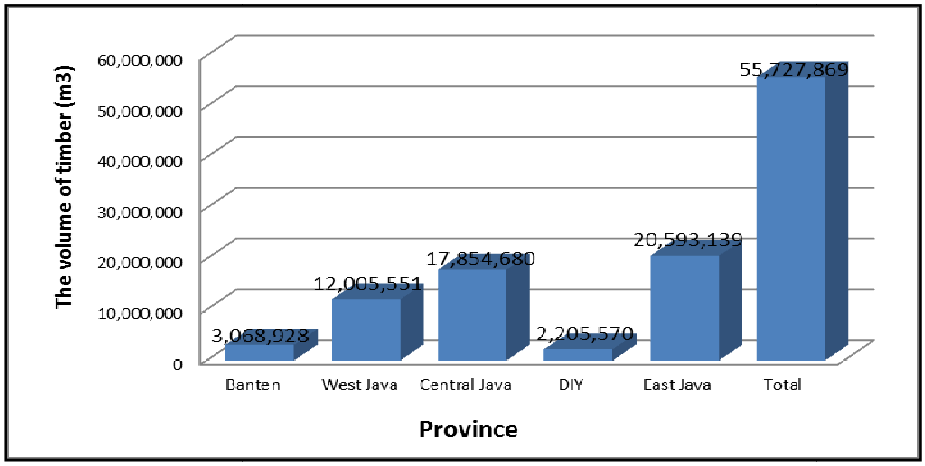

Figure 10: Estimation of the amount of community timber on Java Island (MoF, 2010)

Since the Indo-TLAS must be also implemented in community forests, the certified areas under the Indo-TLAS scheme are still very small compared to the total community forest areas. The total area of certified community forest in Indonesia until May 2013 was about 9,674.99 ha, which is 0.12 % of the total area of community forests (EI, 2013; MHI, 2013; MoF, 2013a; TP, 2013). The difference between certified and uncertified community forests under the Indo-TLAS scheme in Indonesia until May 2013 is presented in figure 11.

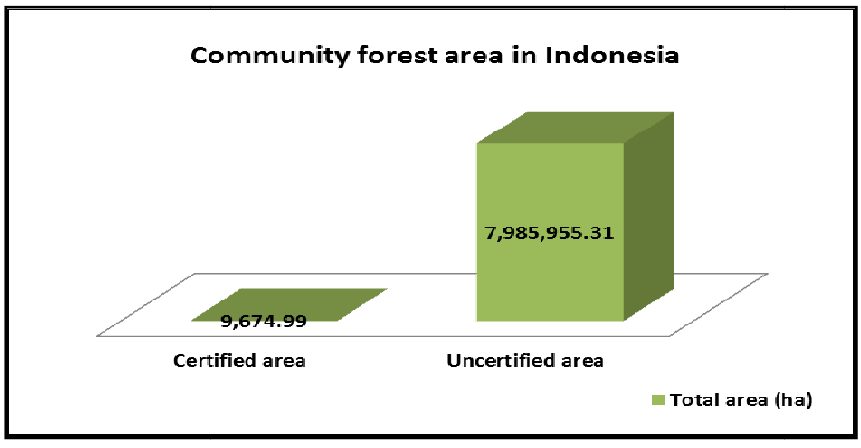

Figure 11: Total area of the certified and uncertified community forest under the Indo-TLAS scheme in Indonesia until May 2013 (EI, 2013; MHI, 2013; MoF, 2013a; TP, 2013)

Furthermore, the processed secondary data that showed the certified community forest areas in Indonesia until May 2013 can be seen in table 7.

Table 7: Community Forest Management Units, certified by the Indo-TLAS scheme until May 2013

No.	Community Forest Management Unit	District	Province	Certified Forest Area (Ha)	Period of Certification (dd/mm/yyyy)	LP&VI (Independent Assessment and Verification Body)
1.	Koperasi Wana Manunggal Lestari (KWML)	Gunungkidul	DI Yogyakarta	594.15	10/10/2011 to 09/01/2014	PT-Sucofindo SBU-SICS
2.	Asosiasi Pemilik Hutan Rakyat Wonosobo (APHRW)	Wonosobo	Central Java	1,228.65	10/10/2011 to 09/01/2014	PT-Sucofindo SBU-SICS
3.	Gapoktanhut Jati Mustika (GJM)	Blora	Central Java	500.36	10/10/2011 to 09/01/2014	PT-Sucofindo SBU-SICS
4.	Koperasi Hutan Jaya Lestari	South Konawe	Southeast Sulawesi	754.44	10/10/2011 to 09/01/2014	PT-Sucofindo SBU-SICS
5.	Koperasi COMLOG Giri Mukti Wana Tirta	Pekandangan	Central Lampung	225.30	10/10/2011 to 09/01/2014	PT-Sucofindo SBU-SICS
6.	Asosiasi Pengelola Kayu Rakyat Bulukumba	Bulukumba	South Sulawesi	304.25	09/06/2012 to 08/06/2015	PT-Sucofindo SBU-SICS
7.	Koperasi Hutan Jati Muna	Muna	Southeast Sulawesi	167.58	09/06/2012 to 08/06/2015	PT-Sucofindo SBU-SICS
8.	Kelompok Tani Sejahtera	Ciamis	West Java	15.65	01/03/2012 to 28/02/2015	PT-Mutu Hijau Indonesia
9.	Forest Management Unit Enggal Mulyo	Ponorogo	East Java	1,033.00	16/03/2012 to 15/03/2015	PT-Mutu Hijau Indonesia
10.	Asosiasi Petani Pengelola Hutan Rakyat Lestari Catur Sari	Pacitan	East Java	314.99	05/07/2012 to 04/07/2015	PT-Equality Indonesia
11.	Unit Pengelola Hutan Rakyat Kare Lestari	Madiun	East Java	1,779.55	09/07/2012 to 08/07/2015	PT-Equality Indonesia
12.	Asosiasi Pengelola Hutan Rakyat Panca Mulya Lestari	Malang	East Java	527.57	13/07/2012 to 12/07/2015	PT-Equality Indonesia
13.	APHR Gawe Makmur	Temanggung	Central Java	349.23	28/03/2013 to 27/03/2023	PT-TRANsTRA PERMADA
14.	Koperasi Serba Usaha APIK	Buleleng	Bali	72.40	09/10/2012 to 08/10/2015	PT-TRANsTRA PERMADA
15.	APHR Purwo Lestari	Purworejo	Central Java	Not found	09/10/2012 to 08/10/2015	PT-TRANsTRA PERMADA
16.	Unit Manajemen Hutan Rakyat Wono Lestari	Bantul	DI Yogyakarta	786.54	20/03/2013 to 19/03/2023	PT-TRANsTRA PERMADA
17.	UMHR Wana Argo Wilis	Nganjuk	East Java	464.93	27/03/2013 to 28/03/2023	PT-TRANsTRA PERMADA
18.	Organisasi Pengelola Hutan Rakyat Rimbun Lestari	Trenggalek	East Java	556.40	28/03/2013 to 27/03/2023	PT-TRANsTRA PERMADA
19.	KSU Hutan Mas	Humbang Hasundutan	North Sumatera	Not found	19/03/2013 to 18/03/2023	PT-SGS Indonesia
Total of Certified Community Forest Area				**9,674.99**		

Source: Processed secondary data (EI, 2013; MHI, 2013; MoF, 2013a; TP, 2013).

3.2 Policy design of the Indo-TLAS in the community forest

The context of the Indo-TLAS policy design in the community forest couldn't simply be separated from the entirely design. Therefore, some aspects related to policy design that will be presented are not limited only in the community forest, but also covering other forest types. For instance, definition, objectives, legal bases, verification scheme and components of the Indo-TLAS as well as its verification procedures are equal for all forest types. However, standard of the Indo-TLAS would be different and specifically applied in the community forest.

3.2.1 Definition, objectives and legal bases of the Indo-TLAS

Definition of the Indo-TLAS

In accordance with the Permenhut P.38/Menhut-II/2009, the Indo-TLAS is defined as follows (Dharmawan et al., 2012, p.19):

> *"A prerequisite to meet the legality of timber products based upon an agreement among forest stakeholders, which comprises standards, criteria, indicators, verifiers, verifying methods, and assessment norms".*

Furthermore, many stakeholders defined the Indo-TLAS in different ways, but they still referred to the Indo-TLAS regulation. For instance, the LEI defined the Indo-TLAS as a traceable system which was developed through a multi-stakeholder process to ensure the legality of distributed and traded timber in Indonesia (LEI, 2013b). Furthermore, the MFP stated that the Indo-TLAS was designed through a multi-stakeholder process to verify the legality of timber from the original forest source through to the export harbour point by using independent auditors, based on the MoF regulations (MFP, 2013a). Additionally, the Indo-TLAS was also defined as mechanism or tool to verify the legality of timber which is traded and distributed based on the required documents within the MoF's regulations (Setyowati, 2012). All of these definitions of the Indo-TLAS cover the same aspects:

1) System/mechanism
2) Timber legality
3) Chain of custody
4) Verification standards
5) Verification methods
6) Multi-stakeholder process
7) Mandatory regulation

Based on the interview results, different knowledge of the Indo-TLAS's definition has been gathered from relevant stakeholders and local communities in Blora, Gunungkidul and Wonosobo districts. The same aspects that have been listed above were also mentioned by the relevant stakeholders such as the MoF and Dishut/Dishutbun officers, academics, NGOs, the MFP, timber industries, auditors, and FFG board members. However, only a few local farmers knew and understood the definition of the Indo-TLAS. These were 5 farmers in Blora, 3 farmers in Gunungkidul, and 5 farmers in Wonosobo (Figure 12). The statements of the local farmers in Blora, Gunungkidul, and Wonosobo, who understood the Indo-TLAS definition, are described as follows:

> *"The thing that I remembered is that the Indo-TLAS is mandatory for all forests, so like it or not, we have to do it" (R16, 2013).*

> *"The Indo-TLAS is a mandatory forest certification system that should be applied in every forest, starting from the forest to the exporter industry" (R26, 2013).*

"What I understood was that the Indo-TLAS is not only a local government program, but also a national government program" (R38, 2013).

Meanwhile, as many as 11, 2, and 4 local farmers, respectively, in Blora, Gunungkidul, and Wonosobo had heard of the Indo-TLAS, but did not understand its definition. There were even local farmers that had never heard of it before. The following statements present the ignorance of local farmers, respectively, in Blora, Gunungkidul, and Wonosobo:

"I had heard of the Indo-TLAS and community forest certification when there was socialization in the village, but I didn't really understand what it was about" (R17, 2013).

"I had heard about the Indo-TLAS certification, but I forgot who delivered it and what it was. I just knew that my forest was categorized as a community forest" (R27, 2013).

"I had never heard of the Indo-TLAS program because now I am old and sometimes I can't attend the FFG meeting" (R41, 2013).

The following figure details number of local farmers and their understanding of the definition of the Indo-TLAS.

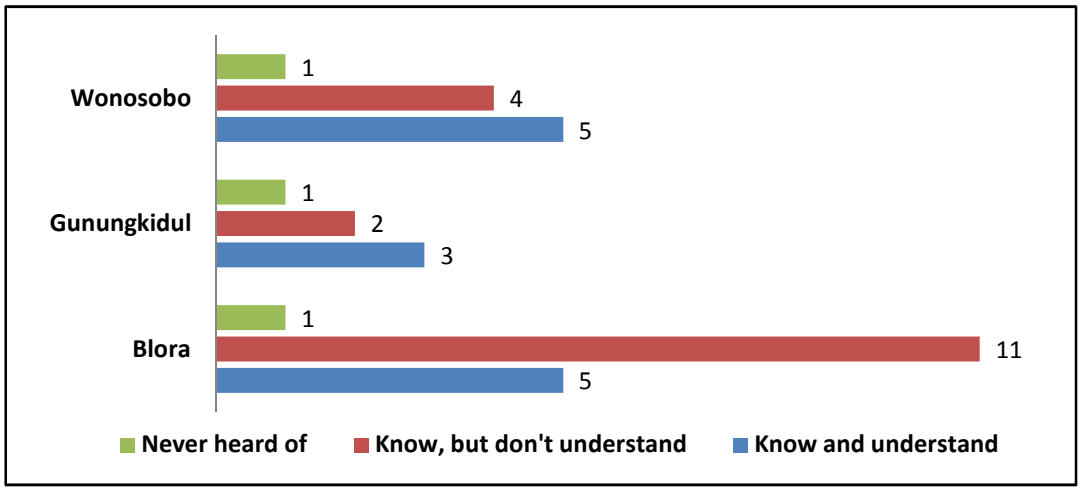

Figure 12: The number of local farmers and their knowledge on the definition of the Indo-TLAS

Objectives of the Indo-TLAS

The official government document that explicitly mentions the Indo-TLAS' objectives was unavailable. However, several of the Indo-TLAS objectives could be seen implicitly in the Directorate General Regulation of Forest Business Development (Perdirjen BUK) No. P.02/VI-BPPHH/2010, as follows (Dharmawan, Nugroho, Kartodiharjo, Kolopaking, & Boer, 2012):

1) To implement good forest governance
2) To perform law enforcement of timber administration
3) To promote the legal timber trade

The objectives of the Indo-TLAS could also be found from relevant stakeholders such as the LEI (LEI, 2013b):

1) To develop legality verification tools which are credible, efficient, and equitable as well as an effort to overcome the illegal logging problem.
2) To improve forest governance in Indonesia.

3) To enhance the competitiveness of Indonesian forest products.
4) To integrate a forest verification system in Indonesia.
5) To get rid of *grey areas* that cause high cost and trigger illegal logging activities.
6) To reduce illegal logging activities.

According to the interview results, different knowledge of the Indo-TLAS objectives has been gathered from key informants. This can be seen in table 8.

Table 8: Key informants and their knowledge on the objectives of the Indo-TLAS

the Indo-TLAS objectives	Key informants										
	1	2	3	4	5	6	7	8	9	10	11
To reduce and combat illegal logging and trading	X	X	X	X	X	X					
To ensure the legality of harvested and traded timbers	X	X	X	X	X				X	X	X
To enforce the use of timber transport documents	X	X		X	X		X			X	X
To be able to trace the origin of legal timbers	X		X							X	
To reinforce positive image against illegal logging	X	X	X					X			
To pursue forest good governance	X		X			X	X				X
To fulfil the foreign market demand for legal timbers	X			X	X	X		X	X		X
To achieve premium prices										X	X

Initials of key informants:

1: MoF & MFP
2: Academicians
3: NGOs
4: Timber industries
5: Auditors
6: Dishut Blora
7: Dishutbun Gunungkidul
8: Dishutbun Wonosobo
9: FFG board members of GJM
10: FFG board members of KWML
11: FFG board members of APHRW

Based on table 8, it can be seen that the MoF and MFP were the only stakeholders who could explain clearly and knew all of the Indo-TLAS objectives. However, they never stated that premium price is one of the Indo-TLAS objectives. Meanwhile, some FFG board members thought that the Indo-TLAS would give them the premium price of certified community timber. Nevertheless, the FFG board members had a greater understanding of the Indo-TLAS objectives than the local authorities.

Furthermore, several of the Indo-TLAS objectives have been obtained from local communities in three study areas. In Blora, thirteen local farmers stated that the Indo-TLAS aimed to achieve a premium price and fulfil export requirements. One of these statements can be seen below:

> *"As far as I know, the Indo-TLAS aimed to enhance the livelihood of local communities. Through the Indo-TLAS, the price of teak trees might be more expensive because exporting countries only accept legal timber" (R5, 2013).*

Moreover, only two local farmers in Blora believed that the Indo-TLAS aimed to trace the origin of legal timbers and combat illegal logging and trading:

> *"From what I understand, the objectives of the Indo-TLAS are to trace the owners of timber, locate its origin and also to perform legal logging and trading" (R16, 2013).*

Meanwhile, there was one local farmer in Gunungkidul who stated the objectives of the Indo-TLAS as follows:

> *"Actually, the Indo-TLAS as a mandatory policy that aims to combat illegal logging and to make timber transportation documents cumpulsory" (R26, 2013).*

The other four local farmers in Gunungkidul stated that the Indo-TLAS' objective is to achieve premium prices. This was also the belief of seven local farmers in Wonosobo. One believed that:

> *"To increase the timber price, legal status of its timber is needed. Therefore, we tried to gain timber legality certification" (R54, 2013).*

In addition, two local farmers stated that the aim of the Indo-TLAS was to improve the use of timber transportation documents. Nevertheless, three respondents from Blora, Gunungkidul, and Wonosobo, who had never heard about the Indo-TLAS, couldn't state the objectives of the Indo-TLAS.

Legal bases of the Indo-TLAS

In the period of 2009-2013, the MoF enacted several legal bases of the Minister of Forestry Regulation (Permenhut), the Directorate General Regulation of Forest Business Development (Perdirjen BUK), and the Minister of Forestry Decree (SK Menhut). These legal bases aimed to regulate the Indo-TLAS in terms of standards and implementation guidelines, verification costs, determination of LP&VI, timber legality information system, and the issuance of V-Legal documents. The sequences of the Indo-TLAS legal bases including regulation hierarchy, regulation amendment, regulation number, date of issuance and its main content are presented in table 9. According to the interview results, mainly the national government, MFP, NGOs and auditors knew the exact amendment of the Indo-TLAS legal bases. Meanwhile, most of the other key informants could only mention the first regulation of the Indo-TLAS, namely Permenhut 38/2009, and some of its amendments. Furthermore, only one local farmer in Blora mentioned Permenhut 38/2009 as the legal base of the Indo-TLAS. He explained,

> *"I have got information from ARuPA that Permenhut number 38/2009 is regulating the implementation of the Indo-TLAS in all forest types including the community forest" (R8, 2013).*

Table 9: Legal bases of the Indo-TLAS

Regulation hierarchy	Regulation number	Date of issuance	Main Content
Permenhut	P. 38/Menhut-II/2009	12-06-2009	Standards and guidelines for performing PHPL assessment and VLK on permit holder or on private/community forests. Validity period of the SLK in the community forest is 3 years and surveillance once every year. Surveillance is aimed to re-audit the certified community forest.
Perdirjen BUK	P. 6/VI-Set/2009	15-06-2009	Standards and guidelines of PHPL assessment in the stated-owned forests: natural, plantation and industrial plantation forest concessions. Standards and guidelines of VLK in the: ▪ Stated-owned forest (concessionaire) ▪ Stated-owned forest managed by local communities (community based forest) ▪ Primary and secondary timber industries ▪ Community forest (private owned forest) ▪ Timber utilization license holder

Regulation hierarchy	Regulation number	Date of issuance	Main Content
Perdirjen BUK	P.02/VI-BPPHH/2010	10-02-2010	Implementation guidelines on: ▪ PHPL assessment ▪ VLK assessment ▪ Independent monitoring system ▪ Submission and settlement of complaint ▪ Criteria and requirements of auditors
Permenhut	P.31/Menhut-II/2010	07-07-2010	▪ Standard of PHPL assessment and VLK costs that are classified based on region. ▪ For the first period, assessment and verification costs will be paid by the MoF budget.
Minister of Forestry Decree (SK Menhut)	SK.5842/ Menhut-VI/BPPHH/2010	02-09-2010	Determination of LP&VI which consists of 10 assessment bodies of PHPL (LP-PHPL) and 5 verification bodies of legality timber (LV-LK).
Permenhut (First amendment of Permenhut P.38/Mehut-II/2009)	P. 68/Menhut-II/2011	21-12-2011	Prominent changes related to community forests: ▪ Community forests that have gained voluntary forest certification are not obligated to be verified under the Indo-TLAS scheme. ▪ Community forests can apply for VLK collectively.
Perdirjen BUK (Replacement regulation for P. 6/VI-Set/2009 and P.02/VI-BPPHH/2010)	P.8/VI-BPPHH/2011	30-12-2011	Standards and implementation guidelines of PHPL assessment and VLK Prominent change related to community forests: ▪ Usage guideline of V-Legal marker on community timber.
Permenhut (Second amendment of Permenhut P.38/Mehut-II/2009)	P. 45/Menhut-II/2012	14-12-2012	Prominent changes related to community forests: ▪ Concessionaire who used the timber from community forests is obligated to facilitate it to gain SLK. ▪ Validity period of SLK in the community forest became 10 years and surveillance once every two years. ▪ VLK in community forests that are funded by the MoF shall be implemented collectively. This is called “group certification”. ▪ All of the community forests throughout Indonesia are required to have SLK before 31st of December, 2013.
Perdirjen BUK (Replacement regulation for P.8/VI-	P.8/VI-BPPHH/2012	17-12-2012	Prominent change related to community forests: ▪ Legal documents of forest land ownership should be recognized by the National Land Agency (BPN).

Regulation hierarchy	Regulation number	Date of issuance	Main Content
BPPHH/2011)			
Permenhut (Replacement regulation for P.31/Menhut-II/2010)	P.13/Menhut-II/2013	15-02-2013	▪ Standards of VLK cost in the community forests are no longer classified based on region. The cost depends on the number of verified samples. ▪ For the first period, assessment and verification cost will be charged to the MoF budget.
Permenhut	P.18/Menhut-II/2013	18-03-2013	VLK information through the portal of Timber Legality Information System (SILK) and issuance of V-Legal document.

Source: Database of Permenhut and its derivatives (MoF, 2013b).

3.2.2 Scheme, components and verification procedures of the Indo-TLAS

Scheme and components of the Indo-TLAS

The main components of the Indo-TLAS are the definition of legality timber, the chain of timber transportation and the independent verification and monitoring system (Prasetyo, et al., 2012; Simula, et al., 2009), which can be seen in the Indo-TLAS scheme (Figure 13). According to this scheme, LP&VI shall be accredited by the National Accreditation Committee (KAN) which was established by the government under the Presidential Decree of the Republic of Indonesia No. 78/2001. Furthermore, accreditation of the LP&VI is conducted based on its competence in verifying the legality of timber by implementing ISO/IEC Guide 65 and the Indo-TLAS regulations. After gaining accreditation, the LP&VI that assesses PHPL and verifies the timber legality is then called LP-PHPL and LV-LK, respectively. Consequently they can issue two types of certificates, namely PHPL and SLK, which are granted to the forest management unit that has fulfilled the Indo-TLAS standards (Dharmawan, et al., 2012; LEI, 2013b; MoF, 2009; Setyowati, 2012).

The standards and guidelines of PHPL assessment should be implemented in the state-owned forests including forest concessions of natural, plantation and industrial plantation forests. Meanwhile, the verification of legality timber under the Indo-TLAS scheme is conducted on the chain of timber origin sources to the export harbours. This system is compulsory for all types of forests in Indonesia. (Dharmawan, et al., 2012; LEI, 2013b; MoF, 2009):

1) Stated-owned forests (concessionaires)
2) Stated-owned forests managed by local communities (community based forests)
3) Community forests (privately owned forests)
4) Primary and secondary timber industries
5) Timber utilization license holders

Furthermore, the concessionaires and local communities can complain about assessment or verification results through the LP&VI. If the objection is accepted, the LP&VI will then complete a correction report of the assessment and the verification results. Meanwhile, an independent monitoring body can dispute the process or result of assessment, verification and accreditation, respectively, through the LP&VI and KAN. Moreover, the result of a complaint settlement made by the LP&VI or KAN, which is called Corrective Action Request (CAR), will be delivered to the forest management unit. If forest concessionaires or local communities are not able to complete the CAR,

the LP&VI will then suspend the status of PHPL or SLK certificates (Dharmawan, et al., 2012; LEI, 2013b; MoF, 2009; Setyowati, 2012).

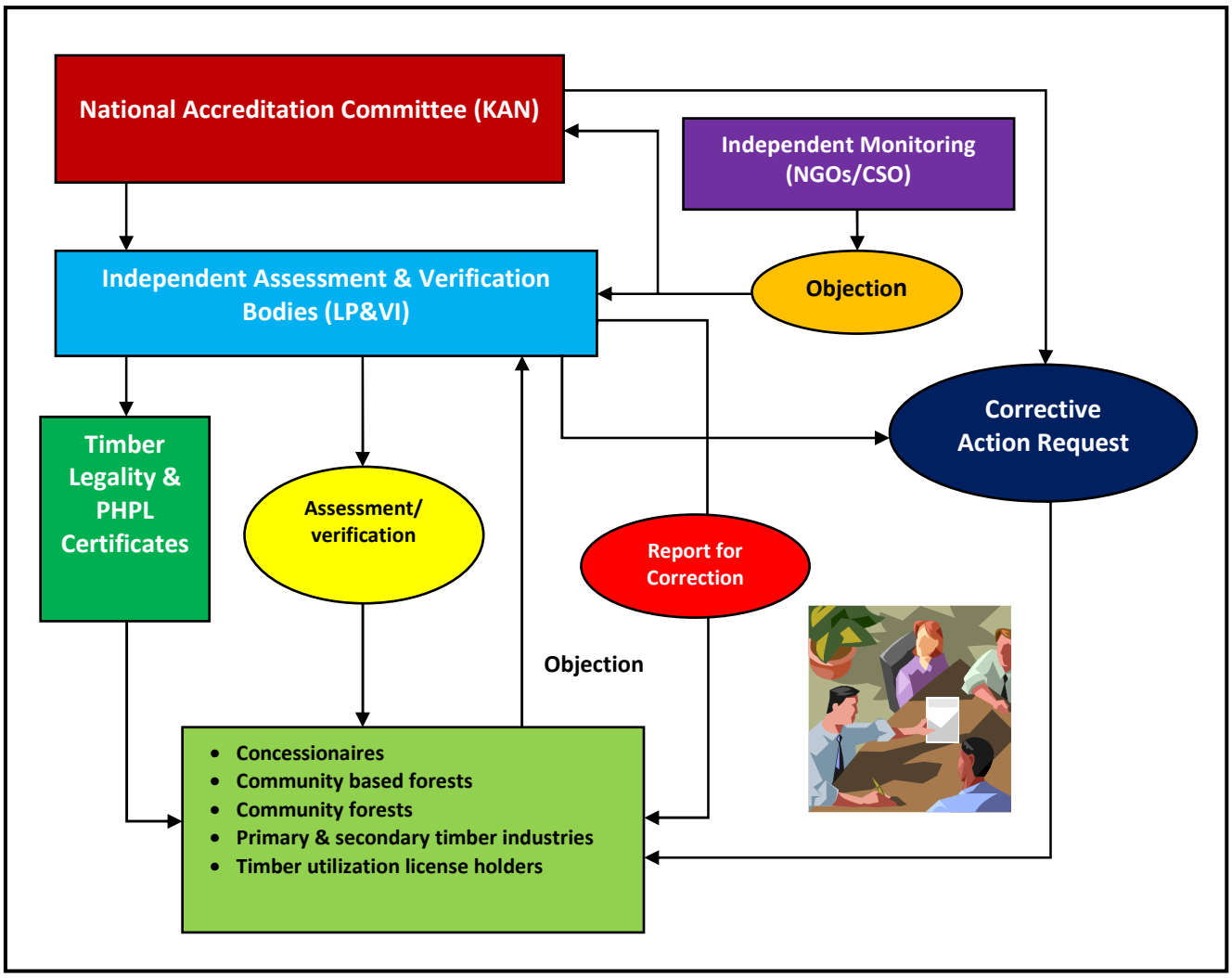

Figure 13: Scheme of the Indo-TLAS (adapted from Setyowati, 2012, p. 9)

The institutions that can monitor this system are "forestry NGOs legally registered in Indonesia; communities living in or around areas where permit holders or private forest owners operate, and other Indonesian citizens that are concerned with the forestry sector" (Dharmawan et al., 2012, p.23). Subsequently, the network of forestry independent monitoring (JPIK) was established on September, 23th 2013. The JPIK office is based in Bogor district, West Java province, and its working areas exist throughout Indonesia. Furthermore, the JPIK has a board of trustees (national NGOs i.e. FWI, Telapak, AMAN, TI Indonesia, IWGFF), a national activator, and focal points in each province (JPIK, 2013). Meanwhile, the form of the LP&VI could be a state or private institution (Dharmawan, et al., 2012). Until February 2013, there were 14 LP-PHPL and 11 LV-LK that had been accredited. These are presented in table 10.

Table 10: LP-PHPL and LV-LK that have been accredited until February 2013

Number	LP-PHPL	LV-LK
1.	PT-Ayamaru Certification	PT-BRIK
2.	PT-Sarbi Internasional Certification	PT-SUCOFINDO SBU SICS
3.	PT-SUCOFINDO SBU SICS	PT-Mutu Agung Lestari
4.	PT-Almasentra Certification	PT-Mutu Hijau Indonesia
5.	PT-Rensa Global Trust	PT-TUV Internasional Indonesia
6.	PT-Forescitra Sejahtera	PT-Sarbi Moerhani Lestari
7.	PT-Mutu Agung Lestari	PT-SGS Indonesia
8.	PT-Nusa Bhakti Mandiri	PT-Equality Indonesia
9.	PT-Equality Indonesia	PT-TRANsTRA PERMADA
10.	PT-Multima Krida Cipta	PT-Trustindo Prima Karya
11.	PT-TUV International Indonesia	PT-Ayamaru Certification
12.	PT-Global Resource Sertifikasi	
13.	PT-TRANsTRA PERMADA	
14.	PT-Trusntido Prima Karya	

Source: SK.5842/Menhut-VI/BPPHH/2010 and personal interview (R48, 2013)

Verification procedures of the Indo-TLAS

In accordance with the Perdirjen BUK No.P.8/VI-BPPHH/2012, the verification procedures of the Indo-TLAS consist of an application, planning, implementation, reporting, decision making and verification (Figure 14). Firstly, the verification application that should be made by the concessionaires or local communities provides the scope of verification, the profile of the concessionaires and local communities, and other information which is needed in the verification process. This application should be submitted to the LV-LK and must firstly be studied by them to ensure the same understanding on the contents of its application. Afterwards, the verification contract must be agreed by both LV-LK and the verification applicant (Ditjen-BUK, 2012b). Secondly, the verification planning practices performed by LV-LK can be described as follows (Ditjen-BUK, 2012b):

1) Establish the audit team
2) Plan the verification activities and schedule
3) Announce the verification plan at least 14 days before verification implementation on the website of the LV-LK and the MoF, verification area and/or mass media
4) Deliver the verification plan to JPIK and the audit team
5) Deliver information regarding the required documents and representative management to the applicant at least 10 days before verification implementation

The third procedure is verification implementation, which includes three stages, namely an opening meeting, document verification and field observation, and a closing meeting. The maximum time for document verification and field observation is 21 days. Fourth, verification reporting is done by the audit team and this involves the detailing of information on the verification results for decision making. The CAR, report and decision making must be done at the latest 14 days after closing meeting. Lastly, decision making regarding the verification results should be performed by the decision maker who is a permanent member of staff in LV-LK. A certificate can only be granted to the applicants who have fulfilled all of the requirements. However, the FMU can improve the unfulfilled verifier at the latest 14 days after the decision making. Finally, LV-LK must announce the issuance, changing, suspension, and revocation of the SLK on the website of the LV-LK and the MoF, and/or in mass media at the latest 7 days after final decision making (Ditjen-BUK, 2012b).

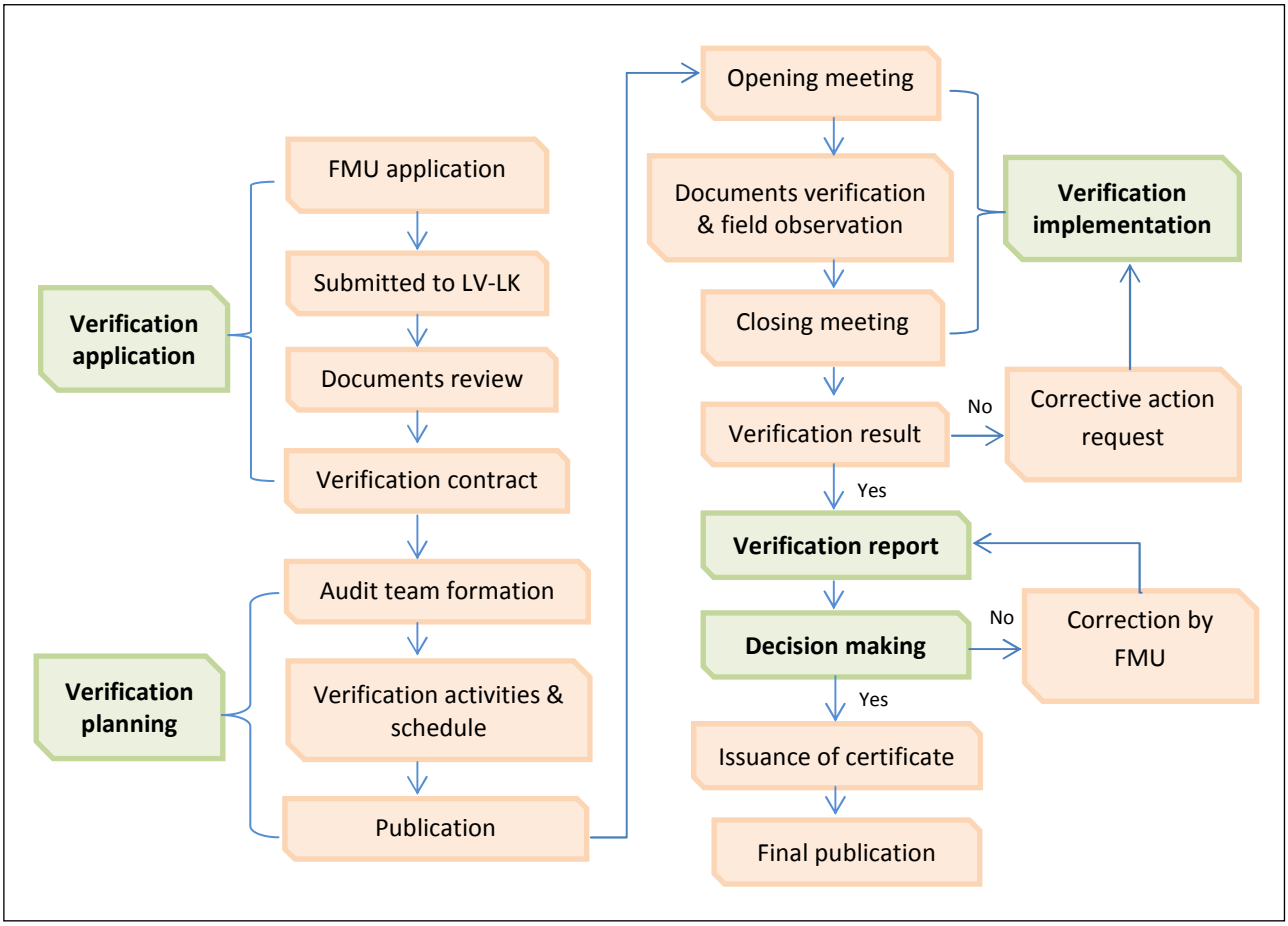

Figure 14: Verification procedures of the Indo-TLAS (Ditjen-BUK, 2012b)

3.2.3 Standard of the Indo-TLAS in the community forest

According to the Perdirjen BUK No.P.8/VI-BPPHH/2012, there is only one criterion that must be fulfilled by local communities in order to gain SLK under the Indo-TLAS scheme (Table 11). This criterion is the legal ownership related to the community forest area, timber and trade. As many as two indicators and four verifiers describe this criterion in more detail. The first indicator is that the local community must be able to show the legal proof of forest ownership. To fulfil this indicator, two verifiers have been set to prove the legal rights of community forests, including the legal documents of forest ownership and a map of their forest. The legal ownership document is allowed in the different forms as long as it is recognized by national or local government authorities. Accepted documents include land certificates, C or D letters, girik titles (for unregistered land with customary land title), or any other legal proof of land ownership recognized by BPN. The next verifier of the first indicator is the provision of a community forest map and its border. The map can be made by computer or by hand, otherwise known as a sketch. Then the border can be an official boundary marker such as boundary pole, an artificial border such as an embankment, or a natural border such as a hedge (Ditjen-BUK, 2012b).

The second indicator is that community forest management units, both individually and in groups, can show the legal documents of timber transportation. These documents are regulated under Permenhut No.P.30/Menhut-II/2012 about PUHH in the community forest. According to this regulation, the legal documents concerning community timber transportation are divided into three forms as follows (MoF, 2012b):

1) Invoice/receipt/note of timber transportation issued by the community forest owner or local buyer/trader.
2) Self-utilization invoice/note of timber transportation issued by the owner.
3) Reference letter about the original source of the community timber (SKAU) issued by the head/officer of the village government.

Table 11: Standard of timber legality verification in the community forest

Criteria	Indicator	Verifier
The legal ownership related to the area, timber, and trade.	Owners of the community forest can show their legal rights.	Legal documents of forest land ownership i.e. land certificate, C letter, D letter, girik title, or other legal proof recognized by BPN.
		The map/sketch of the community forest and its borders (boundary pole, embankment, or hedge plants).
	Community forest management unit (individual and group) can show the legal documents of timber transportation.	The legal documents of community timber transportation i.e. invoice/receipt/note of timber transportation and SKAU document.

Source: Appendix 2.3 in the P.8/VI-BPPHH/2012 (Ditjen-BUK, 2012b)

The invoice, receipt or note of timber transportation that is used for timber trading is applied to the timber species of *Cempedak, Dadap, Duku, Jambu, Jengkol, Kelapa, Kecapi, Kenari, Mangga, Manggis, Melinjo, Nangka, Rambutan, Randu, Sawit, Sawo, Sukun, Trembesi, Waru, Karet, Jabon, Sengon, and Petai*. Meanwhile, self-utilization invoices, receipts and notes are applied to all timber species that are used for the local community's needs or public facilities. The issuers of invoices, receipts and notes regarding the timber do not need to be appointed as official issuers but they must report to the head of the village government. The last document, SKAU is applied to the timber species that was not mentioned in the invoice, receipt or note relating to the transportation of timber such as teak (*Tectona grandis*), acacia (*Acacia mangium*), and mahogany (*Swietenia mahagoni*). The SKAU issuers can be heads or officers of village governments that have been assigned by Dishut or Dishutbun after they have attended the training course on the measurement and recognition of community timber species. However, particularly in the certified community forest, the self-assessment of SKAU can be performed by local communities and then they must report to the head or an officer within the village government (MoF, 2012b).

In terms of the collective application of VLK, the Directorate General of Forest Business Development (Ditjen BUK) issued a letter on July 25th 2012 to the head of Dishut/Dishutbun. This letter contained specific requirements to be fulfilled if the verification was collectively applied and funded by the MoF budget. These requirements were (Ditjen-BUK, 2012a):

1) Local communities have to be joined in only one FFG that has a notarial deed of group forming, is registered with the regency/municipality, or is in a business management unit or cooperative.
2) Provide a list of FFG board members, members, and their address.
3) Ensure the minimum area of community forest that will be verified is around 500 ha within the same district.
4) Include a map/sketch of the location of the community forest.

5) Provide legal documents pertaining to forest land ownership. The application should be submitted by the head of the district to the Ditjen BUK with copies sent to Dishut/Dishutbun both at district and provincial levels.

Referring to the interview results of key informants, the standard of the Indo-TLAS in the community forest is the easiest and simplest rather than the standard in other forest types. This can be seen in the following statement:

> *"In the community forest, the timbers belong to the local communities. We do not want to overburden them by this system. That is why the criteria and indicators were simplified. For example the indicator of the ownership of forest land can be proved by legal documents other than the land certificate" (R49, 2013).*

Similarly,

> *"The community forest seems like a golden boy, thus the criteria and indicators of the Indo-TLAS are the easiest among the forest management units. However, this is according to the view of the policy maker, which could differ from the view of local communities" (R53, 2013).*

However, there were some key informants that disagreed with the above statement. They said that the standard of the Indo-TLAS is too difficult to be fulfilled by the local communities as in the following statement:

> *"I was surprised when the SKAU/invoice became one of the Indo-TLAS indicators in the community forest. The government should realize that local communities never deal with or keep these documents. They never use invoices or other documents to sell their timber just as they don't when they sell rice, corn, cassava, or other forest products" (R1, 2012).*

Likewise,

> *"The SKAU/invoice is hard to implement and document for the local people, but if this indicator is removed, the Indo-TLAS will automatically be removed as well. This is because the main objective of the Indo-TLAS is to be able to trace the origins of harvested timber, and this can only be proved by the SKAU/invoice" (R50, 2013).*

Also,

> *"Not all local people have a legal document of forest land ownership. Most of them only have a tax return document (SPPT) which shows the calculation and payment of land tax. The payer of the SPPT could be different to the actual owner of the land. This was due to the transaction of land buying and selling or the land inheritance. Furthermore, a reference letter of land ownership from the head of the village cannot be easily provided due to the limited administrative officer in the village" (R1, 2012).*

Furthermore, instead of using the term "the Indo-TLAS standard", local farmers use the term "the Indo-TLAS requirements". The local farmers in Blora, Gunungkidul and Wonosobo mentioned the Indo-TLAS requirements as in the following statement:

> *"As far as I understand, to fulfil the Indo-TLAS requirements we need to collect the data relating to forest land ownership, a map of the community forest, and official documents of timber transportation" (R8, 2013).*

"Instead of collecting official land certificates or a C/D letter, a forest area map, and legal documents of timber transportation, we should also provide the data detailing the community forest organization and a list of the board members and their membership" (R29, 2013).

"The head of the FFG stated that we have to collect an official document of forest land ownership and timber transportation as well as a record of the actual position, area and border of our forest" (R40, 2013).

Nevertheless, many of local farmers did not know about the requirements of the Indo-TLAS:

"We did not fully understand the Indo-TLAS requirements. However the FFG board members told me that every local farmer who wants to join FFG should be listed as a member in the membership document" (R6, 2013).

3.3 Policy measures of the Indo-TLAS in the community forest

The policy measures of the Indo-TLAS in the community forests in Blora, Gunungkidul, and Wonosobo will be described in this sub-chapter. Included is a verification feasibility study (preparation), forest management consultancies (facilitation), verification assessment inspection (verification), and verification monitoring inspection (surveillance). Moreover, the positive and inhibiting factors of the Indo-TLAS' policy measures will be further elaborated.

3.3.1 Preparation and facilitation of timber legality verification

As there is currently no learning process to help in the implementation of the Indo-TLAS at the community level, learning sites in Blora, Gunungkidul, and Wonosobo have been proposed by ARuPA and SHOREA as they try to attract MFP as the main funder of this project (see Box 1). Initially, the learning site in Blora and Wonosobo was community forest, meanwhile in Gunungkidul was the HKm or "*hutan kemasyarakatan*" in Bahasa Indonesian. HKm was performed in a state-owned forest by local communities, who were required to have a permit from the Minister of Forestry. However, the permit that had been granted by the Minister of Forestry to the HKm in Gunungkidul was a land utilization permit under the Directorate General of Watershed Development and Management and Social Forestry (Ditjen BPDAS&PS).

Box 1: Pilot project of Indo-TLAS implementation in the community forest

Based on MoU that was signed by the United Kingdom and the government of Indonesia on October 12th 2000, MoF and the Department for International Development (DFID) signed a Letter of Agreement on October 11th 2008 committing an initial GBP 5 million for a period of three years (2008-2011) to the second phase of the MFP. This program aims to support forest governance reform in Indonesia, with a particular focus on negotiation and implementation of FLEGT-VPA between the EU and the government of Indonesia. The MFP II activities have three main objectives (MFP, 2013c):

1) Sufficient capacity to implement the Indo-TLAS, especially within community based forestry, small and medium-sized enterprises, and independent forest monitoring.
2) Certified timber and timber products under the Indo-TLAS scheme recognized nationally and in key international markets.
3) The Indo-TLAS has strong foundations in the forestry governance framework.

Therefore, a pilot project, for the implementation of the Indo-TLAS in the community forests on and outside of Java Island, was run to strengthen FLEGT-VPA in Indonesia. The first-five community forests that were funded by MFP II were GJM (Blora, Central Java), KWML (Gunungkidul, DI Yogyakarta), APHRW (Wonosobo, Central Java), Cooperative of Comlog Giri Mukti Wana Tirta (Pekandangan, Central Lampung), and Cooperative of Hutan Jaya Lestari (Konawe Selatan, Southeast Sulawesi) (Sulistiowati, 2011). To implement this project, MFP cooperated with SHOREA and ARuPA to facilitate the community forests on Java Island until they gained SLK on October 10th 2011 (ARuPA & SHOREA, 2011).

Meanwhile, to fulfil the Indo-TLAS requirements, the permit HKm needed was a timber product utilization permit from the Ditjen BUK. As they didn't have this permit, another site was chosen instead of the one in Gunungkidul. The KWML became the new site: a settled community forest management unit in Gunungkidul (ARuPA & SHOREA, 2011). This site replacement is confirmed in the following statement:

> *"At first we actually facilitated HKm in Gunungkidul, which was the Sedyomakmur cooperative. Because its legal permit had not yet cleared, we decided to turn over the Indo-TLAS fund to the FMU that already existed, which was the KWML" (R50, 2013).*

Furthermore, the preparation and facilitation measures of the Indo-TLAS in Blora, Gunungkidul, and Wonosobo had been conducted simultaneously from January to July 2011. ARuPA fully assisted and facilitated these measures on 3 sites, meanwhile SHOREA mainly assisted and facilitated the Indo-TLAS in Gunungkidul (ARuPA & SHOREA, 2011). At the same time, ARuPA and SHOREA was also facilitating PHBML as voluntary forest certification under the LEI scheme (see Box 2) instead of facilitating the Indo-TLAS. The facilitation of PHBML was mainly conducted in GJM and APHRW, because KWML had been certified by PT-TUV Rheiland gained the PHBML certificate on 20th of September 2006. Consequently, some differences and simiralities of these measures emerged in terms of coordination and socialization, the village identification process, establishment of the local community association/cooperative, capacity building for local people, fulfilment of the Indo-TLAS standard, and drafting of application documents.

Box 2: PHBML as voluntary forest certification under LEI scheme

Based on the forest management types in Indonesia, the LEI has developed three eco-label certification systems for forest management (LEI, 2009b):

1) Certification system for natural production forests
2) Certification system for industrial plantation forests
3) Certification system for community forests

The certification system for community forests was called PHBML. According to the LEI standard number 5000-3, PHBML is defined as the sustainable management of forests and forestry products that are managed by the local communities in traditional ways. The forest management unit could be small or medium sized, such as a community, community-based business, or an individual (household). Furthermore, sustainable forest management relates to production, ecological, and social aspects and as a result the PHBML standard contained 3 principles (LEI, 2009a):

1) Sustainability of Production Function
2) Sustainability of Ecological Function
3) Sustainability of Social Function

Firstly, the principle of sustainable production has 3 criteria. These are the sustainability of forest resources, harvesting, and business. Secondly, the principle of sustainable ecology has two criteria, namely ecosystem stability and protection for species in danger of extinction. Lastly, the principle of social sustainability has 4 criteria, namely the clarity of tenure system, assuredness of community economic resilience and development, stable interaction between social and production process, and equitable benefits for the local communities. The validity period of a PHBML certificate is 15 years and surveillance occurs every 5 years (LEI, 2009a).

Coordination and socialization

Before conducting the Indo-TLAS socialization[4], ARuPA firstly held formal and informal meetings with the local authorities. These meetings aimed to ensure ARuPA of the commitment, understanding and support of the local authorities in implementing the Indo-TLAS in the community forests (ARuPA & SHOREA, 2011). On 24th of February 2011, ARuPA coordinated and introduced the concept of the

[4] Socialization means the formal meeting with the relevant stakeholder to introduce and deliver the Indo-TLAS policy.

Indo-TLAS in Blora through a multi-stakeholder meeting, which was attended by the Secretary of the Municipality, the Dishut officer, the heads of 8 villages, and related agencies. Moreover, a multi-stakeholder meeting was conducted again on May 4th 2011 due to the change in the head of the Dishut Blora. Consequently, socialization of the Indo-TLAS was also conducted by ARuPA and supported by either the Dishut Blora officers or a forestry extension workers, in 8 villages (Purwanto, 2011). However, the PHBML voluntary forest certification was first introduced before the Indo-TLAS was introduced in Blora:

> *"Firstly, Persepsi, a local NGO, came and introduced PHBML certification in Blora in 2008-2009. Afterwards, the Dishut of Central Java Province held a training session on PHBML in 2010. At the same time, ARuPA continued to grant PHBML certification and performed gap analysis in Blora that had been funded by LEI. Furthermore, ARuPA introduced the Indo-TLAS and enabled local communities to gain timber legality certification in 2011" (R1, 2012).*

Meanwhile, the coordination in Wonosobo was performed through formal meetings with the Regent of Blora on 29th January 2011. This meeting was also attended by the National Forestry Board, MFP, Dishutbun, and local farmers. Additionally, informal coordination was also conducted with Dishutbun Wonosobo and the Regent Assistant 2 of Economy and Institution (ARuPA & SHOREA, 2011). Furthermore, ARuPA began the socialization of the Indo-TLAS in Wonosobo at the beginning of February 2011. This event was attended by stakeholders such as Dishutbun Wonosobo, sub-district and district officers, members of the timber industry, and local communities. Subsequently, every village that had joined the APHRW was socialized in the Into-TLAS (APHR, 2011). However, the Dishutbun officers/forestry extension workers did not fully support the Indo-TLAS implementation, because some of them thought that the Indo-TLAS had squandered the state budget:

> *"In my personal opinion, the Indo-TLAS was nothing but than a peculation program. Besides that, the community timber was legal and the forests clearly belonged to the local people" (R34, 2013).*

Instead of introducing the Indo-TLAS, ARuPA delivered PHBML certification to local communities in Wonosobo:

> *"Even though the Indo-TLAS and PHBML are different schemes, ARuPA delivered the policies of these to local communities in Wonosobo at the same time" (R34, 2013).*

Due to the replacement of the project site in Gunungkidul, the coordination and socialization of the Indo-TLAS in KWML has been conducted at the beginning of June 2011. ARuPA and SHOREA came directly to the secretariat of KWML and introduced the Indo-TLAS in 3 villages. Consequently, there was no stakeholder meeting like had been conducted in Blora and Wonosobo (ARuPA & SHOREA, 2011). Also PHBML was not introduced simultaneously with the Indo-TLAS, because KWML had gained PHBML certification in 2006:

> *"The Indo-TLAS socialization was first conducted at KWML, and then in the village where the Paguyuban board members was live here. Afterwards they delivered it to the local communities in each sub-village. The socialization focused on the Indo-TLAS since we gained PHBML certification in 2006" (R31, 2013).*

Nevertheless, the presence of the Indo-TLAS and PHBML led to ambiguity and confusion among the local farmers about forest certification and verification:

> *"The local farmers only understood that they were involved in the implementation of community forest certification in general. Yet they could not distinguish which process was*

geared towards gaining SLK and which one was directed towards gaining PHBML certification" (R1, 2012).

Village identification process

As many as 8 and 5 villages in Blora and Wonosobo respectively, have been appointed by ARuPA and Dishut/Dishutbun as project sites for the implementation of the Indo-TLAS. The selection of 8 villages in Blora was due to their forest sites adjacent to Plantungan village. This village has a forest farmer group that has succeeded in managing their forest and performing the MoF program on forest and land rehabilitation. Those 8 villages are Ngampel, Sendangharjo, Plantungan, Tempuran, Jatirejo, Soko, Waru, and Jurangjero.

"Plantungan village was chosen as a pioneer site to implement the Indo-TLAS because of their successful story in 2001-2002, when they implemented the forest and land rehabilitation program. They successfully planted 90% of the trees as stated in the plantation target. Moreover, they have a strong existing forest farmer group that may encourage other groups to become actively involved in government programs" (R22, 2013).

Meanwhile, villages were identified in Wonosobo while the Indo-TLAS training was conducted and attended by forest farmer groups that came from 15 villages in Wonosobo. Those 5 villages are Jonggol Sari, Kali Mendong, Manggis, Duren Sawit and Burat. They have also achieved some success in managing their forest. Jonggol Sari village, for example, came second in the national rehabilitation competition in 1996. Moreover, Kali Mendong village came first in national forest and land conservation competition in 2006. Jokomadu group (Jonggol Sari, Kali Mendong, Manggis, and Duren Sawit) also received an award from Perum Perhutani as they finished in second position in CBFM competition in 2011.

"Both the villages of Jokomadu and Burat have performed well in the national competition of community forest management. Therefore, Dishutbun proposed they be facilitated by ARuPA to gain SLK" (R35, 2013).

Nevertheless, village identification process in Gunungkidul was not conducted, because KWML had already been established since 2006. They have been selected to replace the HKm site because of their already effective organization and management of the forest. Consequently, they gained PHBML certification in 2006 and passed the surveillance in 2011. The members of KMWL 3 villages that have been facilitated by PKHR (Centre of Community Forest Research), ARuPA, and SHOREA, are Kedungkeris, Girisekar, and Dengok respectively.

"When ARuPA and SHOREA introduced the Indo-TLAS in Gunungkidul, KWML had already existed for 7 years and covered 3 villages in 3 sub-districts. They have experience in gaining the PHBML certificate and therefore were selected to implement the Indo-TLAS" (R28, 2013).

Establishment of local community association/cooperative

If the verification process is funded by the government, the local communities have to be joined in only one association or cooperative and the total community forest area must be at least 500 ha within the same district. Furthermore, the association or cooperative must have a notarial deed of group establishment, which has been registered with the regency or municipality, or in a business management unit or cooperative (Ditjen-BUK, 2012a). Therefore, ARuPA and SHOREA enable them to establish the association/cooperative, select the board members, compile an organization statute, obtain a notarial deed, and collect the statement letters of membership. Particularly in Blora, forestry extension workers were actively involved in this process. However, KWML as a cooperative already had board members, a notarial deed, a legal statute, and a list of members since 2006, so it

was exempt from this process. Nevertheless, the establishment of an association or cooperative was also directed to reduce the cost of the Indo-TLAS verification:

> *"One of the purposes of the APHRW establishment in Wonosobo was to deal with the high cost of the verification of the Indo-TLAS. It was be more effective and efficient to charge the cost against the association rather than against each forest farmer group" (R2, 2012).*

Similarly,

> *"The facilitator said that if the application was proposed by each village, the verification cost would be very expensive. Therefore, there was an agreement between the 8 villages in Blora to integrate into one association: the GJM. Then we will collectively apply for the Indo-TLAS verification" (R8, 2013).*

Likewise,

> *"Actually, three forest farmer groups have already been established at the village level since 2004. These are Kedungkeris, Dengok, and Girisekar were facilitated by PHKR, SHOREA, and ARuPA, respectively. Considering the high cost of PHBML certification, in 2006 we decided to consolidate into one organization that might cover all of our forests.* This organization is *KWML" (R25, 2013).*

Furthermore, ARuPA organized a formal meeting with a local community representative from the village that had been identified and proposed by ARuPA and Dishut/Dishutbun to join the association. As a result, GJM and APHRW were established on March 3rd 2011 and May 10th 2011, respectively. As they are facilitated in a similar fashion by ARuPA, consequently GJM and APHRW have a similar organizational structure, which consists of the advisor (patron and supervisor), board of controller, board members, and village coordinators (Sucofindo, 2011a, 2011b). They appoint the board members from village representatives and one person as village coordinator from each village. In Wonosobo, the head of village who officiates is appointed village coordinator. Even when there is a change in the head of the village, the previous selected coordinator remains village coordinator. Meanwhile in Blora, the head of the FFG or village elders are appointed village coordinators. Moreover, ARuPA also encouraged GJM and APHRW to collect letters of membership.

GJM and APHRW also had the similar organizational statutes that were provided by ARuPA. Therefore, they had a similar vision, missions, and goals. Their vision was to establish strong organization, increase members' welfare, and achieve the sustainability of the community forest. Subsequently, their missions were as follows:

1) To establish GJM/APHRW as a strong organization.
2) To increase the capacity, awareness, knowledge, and skill of the members.
3) To increase the selling price of forest products.

These missions consisted of long-term and short-term goals. The long-term goals were to realize sustainable community forest management and to achieve high economic value of the forest. Meanwhile, the short-term goals were to gain acceptance into the Indo-TLAS and PHBML certificates. Lastly, ARuPA facilitated them to obtain a notarial deed of association establishment. Detailed information of the establishment of the notarial deed of GJM and APHRW, including the existing notarial deed of KWML, can be seen in table 12.

Table 12: Establishment the notarial deed of GJM, KWML and APHRW

Association/ cooperative	Number of notarial deed	Notarial deed officer	Date of issuance	Place of issuance
GJM	55	Yani Dwi Rahayu, SH, M.Kn	23-06-2011	Blora
APHRW	19	Yenny Ika Putri Hardiyaniwati, SH	07-06-2011	Wonosobo
KWML	31	Susilowati A, SH	21-09-2006	Gunungkidul

Source: Final report of timber legality verification (Sucofindo, 2011a, 2011b, 2011c).

Capacity building for local people

ARuPA and SHOREA have conducted several training sessions of the Indo-TLAS to increase local people's understanding, as it is these local people that implement the Indo-TLAS in the community forests. Firstly, training of the Indo-TLAS for the SKAU issuance officer was held on 8-10th of February 2011 at Yogyakarta. This training was attended by 29 participants who were village officers from Blora, Wonosobo, and Gunungkidul. These village officers will become the official issuer of the SKAU. Therefore this training session focused on the policy and forestry administration of the Indo-TLAS, and especially the procedure of SKAU issuance (ARuPA & SHOREA, 2011).

Secondly, training of the Indo-TLAS for local communities was given on 25-26th of February 2011 at Blora. This training was attended by 23 participants who were FFG members, forestry extension workers, and ARuPA facilitators. Furthermore, the Indo-TLAS training session at Wonosobo was held on 28th of February – 1st of March 2011. This was attended by 21 participants, consisting of FFG members and forestry extension workers. Meanwhile, a Indo-TLAS training session at Gunungkidul, designated for the HKm groups, was held on 16-17 February 2011. This was attended by 35 participants, who were members of HKm groups. After the training, all participants were expected to be able to explain the Indo-TLAS to the members of local communities who hadn't attended the training (ARuPA & SHOREA, 2011).

The teaching of the Indo-TLAS was justified by a FFG board member, who attended a training session,

> *"ARuPA has trained and introduced the Indo-TLAS policy to the board members and local farmers. They have also taught us how to manage an organization in a better way. Additionally, they have asked us to practice together how to measure tree volume and to make a map or sketch detailing our forest's position" (R37, 2013).*

Fulfilment of the Indo-TLAS standard and application drafting

In terms of the fulfilment of the Indo-TLAS standard, GJM and APHRW were fully assisted and facilitated by ARuPA from March to June 2011. Especially in Blora, forestry extension workers were also actively involved in this facilitation. Meanwhile ARuPA and SHOREA began facilitating KWML in June 2011 (ARuPA & SHOREA, 2011). As a result, the Indo-TLAS requirements that have been provided by GJM, KWML, and APHRW are as follows:

1) Data of association/cooperative including the organization structure, statue, notarial deed, and statement letter of membership have been provided.
2) Legal documents of forest land ownership i.e. SPPT, land certificate, letter C, letter D, Girik or other documents recognized by BPN have been provided.
3) A map or sketch of community forest areas including a map of the village, blocks and parcels, including its natural and artificial boundaries.
4) Legal documents of timber transportation such as a SKAU/invoice/receipt/note of timber transportation have been provided. This requirement was only applicable for KWML because GJM and APHRW didn't sell timber since until they had been verified.

Instead of fulfilling the Indo-TLAS requirements, the local communities in Blora and Wonosobo completed a forest inventory to find out the potential community timber volume. However, a forest inventory is more useful to fulfil PHBML requirements rather than the Indo-TLAS. Below are statements from local farmers in Blora, Gunungkidul, and Wonosobo, which relate to their activities in meeting the Indo-TLAS requirements:

> *"It was not easy to finally gain SLK. Firstly, we had to collect the land certificate/SPPT/letter C of the community forest area that was registered in GJM. Then we had to show the land borders to ARuPA, so they could assist us in making a map of our forest. Furthermore, we conducted a forest inventory by measuring the height and diameter of trees" (R18, 2013).*

Similarly,

> *"As I remembered, we had to show our land certificate/SPPT/letter C and make a copy for APHRW. We also measured the forest by using sampling methods recording the number, height, diameter and species of trees. Then we detailed the artificial and natural land borders, such as Puring trees, to make a map, but the map was ultimately produced by ARuPA" (R43, 2013).*

Likewise,

> *"Due to the several of the Indo-TLAS requirements have been met such as cooperative data, the production of a map, and SKAU/invoice documents, KWML provided the remaining requirement, which was either a land certificate, SPPT or letter C regarding the community forest" (R26, 2013).*

After all of the requirements had been provided, the application document was drafted by ARuPA and delivered to LP&VI in June 2011. This application consists of two sets of documents called Book 1 and Book 2. The first document contains information about the community forest management unit to be verified. Then the second document consists of supporting data related to the Indo-TLAS requirements as follows (KWML, 2011):

1) Notarial deed of association/cooperative establishment
2) Structure of board members and list of membership
3) Map of the community forest area
4) Potential of forest stand volume
5) Chain of community timber administration and trading
6) Legal document of forest land ownership
7) Legal document of timber transportation

3.3.2 Verification and surveillance of timber legality

Verification was conducted in the three community forests after the application from community FMUs had been submitted to PT-Sucofindo SBU-SICS as an independent verification body. The aim of this verification is to ensure that the FFG has reached the standards required by the Indo-TLAS in the community forest, and to give a certification decision to the FFG based on the verification results. According to Permenhut 38/2009, surveillance was performed one year after the FFG gained SLK (MoF, 2009). Surveillance aims to reassess whether the local communities still comply with the Indo-TLAS or not. Furthermore, several techniques have been used by the audit team to conduct verification. Examples of these are desk study, interview, and field observation. Desk study aims to collect, learn, and analyse the existing data and valid documents. Meanwhile, field observation is conducted to record, inspect, test field samples and measure the validity of the data. Lastly, Dishut/Dishutbun, village officers, the board members, and members of the FFG are interviewed by LP&VI (Sucofindo, 2011a, 2011b, 2011c).

Timber legality verification in Blora, Gunungkidul, and Wonosobo

The implementation of timber legality verification in GJM Blora, KWML Gunungkidul, and APHRW Wonosobo was spread over 8, 3, and 5 villages, respectively. This verification was based on an agreement between PT-Sucofindo SBU-SICS and SHOREA No: 3934.A/SICS-VI/VLK/2011 on 15th of June 2011. Based on this agreement, the total of exactly verification cost in 3 areas was $ 7833.33 (1 $ = Rp 9,000), excluding accommodation during verification and other materials that were provided by SHOREA. To enable this verification, the audit team was formed by PT-Sucofindo SBU-SICS which consists of: 1) three people on the review panel, 2) one lead auditor, 3) one auditor, and 4) two internship auditors. In Gunungkidul however, there is only one internship auditor. The stages of the verification process in Blora, Gunungkidul, and Wonosobo consisted of a verification application, document review, publication of the verification plan, production of the verification work plan, field verification, verification reporting, and the issuance of SLK (Sucofindo, 2011a, 2011b, 2011c).

Submission of verification application & document review

According to the verification agreement, GJM, KWML and APHRW submitted a verification application to PT-Sucofindo SBU-SICS on 15th of June 2011. The total area of community forest to be verified in Blora, Gunungkidul, and Wonosobo was 652.39 ha, 815.18 ha, and 1,653.91 ha respectively. GJM, KWML, and APHRW also attached some required documents such as a notarial deed of establishment, a statute, and a list of the members of the association/cooperative. Furthermore, the application documents were reviewed by the audit team in terms of their completeness and conformity with the existing regulations (Sucofindo, 2011a, 2011b, 2011c).

Publication of the verification plan

The verification plan must be published at least 7 days before the field verification in order to get input or feedback from JPIK. This plan was published on the MoF website (www.dephut.go.id) and in the local media. The local newspaper entitled "*Koran Pagi Wawasan*" uploaded the Wonosobo and Blora verification plans on 25th June 2011 and 5th of July 2011, respectively. Meanwhile, the Gunungkidul verification plan was published in the local newspaper, entitled "*Kedaulatan Rakyat*", on 25th June 2011 (Sucofindo, 2011a, 2011b, 2011c).

Production of verification work plan

The verification work plan of was devised by the audit team to ensure that the verification process would be well implemented according to its schedule and task division. This work plan was first delivered to GJM, KWML and APHRW before the audit team carried out the verification. The verification in Gunungkidul and Wonosobo was scheduled for between the 4th and 7th July 2011, while the verification in Blora was scheduled from 12th to 15th July 2011 (Sucofindo, 2011a, 2011b, 2011c).

Field verification

This stage consists of an opening meeting, document verification, an interview, field observation, and a closing meeting. The opening meetings with KWML and APHRW were held on 4th July 2011, and the meeting with GJM was held on 12th July 2011. These meetings were held in the secretariats' offices of GJM, KWML, and APHRW, which are located in Plantungan, Dengok, and Kali Mendong villages, respectively. Furthermore, the document verification was conducted on the same day to ensure legality in terms of the association/cooperative establishment, forest land ownership, timber harvesting and trading. Then, the board members and members of GJM, KWML, APHRW, and some local farmers were interviewed. The number of samples was determined by counting the square root of the registered members in GJM, KWML, and APHRW which consists of 30, 41 and 52 of samples, respectively. Moreover, field observation was conducted to cross check the written data with the actual facts in the field, such as a legal proof of forest land ownership, conformity between the location and the map, and the forest land borders.

Finally, the preliminary result of field verification was delivered at the closing meetings, which were held on 7th of July 2011 in Gunungkidul and Wonosobo and on 15th of July 2011 in Blora. Furthermore, GJM, KWML and APHRW have a maximum of 10 days after the meeting to improve and complete the CAR (Sucofindo, 2011a, 2011b, 2011c). An example of CAR in Blora was the updating of the addition of GJM member and its forest area. Moreover, many of the SPPT documents were collected to fulfil the first verifier of legal documents pertaining to forest land ownership. Considering that the SPPT is not legal proof, GJM should provide a land certificate, C letter, D letter, girik title, or other any other form of legal proof recognized by BPN (Purwanto, 2011). In addition, PT-Sucofindo SBU-SICS also cross-checked the SPPT documents with the corresponding letter C documents in the village office to prove the legality of forest land ownership (Sucofindo, 2011b).

Verification reporting and issuance of SLK

After receiving the CAR documents from GJM, KWML and APHRW, the final report, which contains the verification result (*Laporan Hasil Verifikasi Legalitas Kayu* (LH-LVK)) was produced by the audit team. This report became a baseline for the review panel in terms of the issuance of SLK. Subsequently, this certificate can only be issued based on the recommendation of the review panel if all verifiers of the Indo-TLAS standard have been met by the local community's association/cooperative. GJM, KWML and APHRW had fulfilled all of these verifiers and finally gained SLK on 10th of October 2011 (Sucofindo, 2011a, 2011b, 2011c). However, there was some data that couldn't be verified due to the unavailability of a legal document pertaining to forest land ownership. As a result, some forest areas that were not eligible to obtain SLK and the owners of these forests, were excluded and had their association membership revoked. Consequently, they were no longer involved in the association's activities after the issuance of SLK. Therefore, the total community forest area that was successfully verified was smaller rather than the proposed one (Table 13). Finally, the verified memberships and community forest areas in GJM, KWML and APHRW can be seen in tables 14, 15, and 16, respectively.

Table 13: Total of proposed and verified community forest area of GJM, KWML and APHRW

Association/ cooperative	District	Proposed community forest area (ha)	Verified community forest area (ha)
GJM	Blora	652.39	500.36
KWML	Gunungkidul	815.18	594.15
APHRW	Wonosobo	1,653.91	1,228.65

Source: Verification agreement and LH-LVK (Sucofindo, 2011a, 2011b, 2011c).

Table 14: Total of verified memberships and community forest area in GJM

Sub-district	Village	Number of members	Community forest area (ha)
Blora	Ngampel	251	138.44
	Sendangharjo	130	58.46
	Plantungan	110	70.44
	Tempuran	24	19.15
Jepon	Jatirejo	76	35.69
	Soko	106	81.08
	Waru	113	55.33
Bogorejo	Jurangjero	74	41.77
Total		**884**	**500.36**

Source: Adapted from Sucofindo (2011a, p. 14)

Table 15: Total of verified memberships and community forest area in KWML

Sub-district	Village	Number of members	Community forest area (ha)
Nglipar	Kedungkeris	228	113.57
Panggang	Girisekar	474	272.63
Playen	Dengok	951	207.95
Total		**1,653**	**594.15**

Source: Adapted from Sucofindo (2011b, p. 16-17&24)

Table 16: Total of verified memberships and community forest area in APHRW

Sub-district	Village	Number of members	Community forest area (ha)
Leksono	Jonggol Sari	768	291.57
	Kali Mendong	503	220.37
	Manggis	506	227.63
	Duren Sawit	337	154.13
Kepil	Burat	584	334.95
Total		**2,698**	**1,228.65**

Source: Adapted from Sucofindo (2011c, p. 14)

Timber legality surveillance in Blora, Gunungkidul, and Wonosobo

According to Permenhut 38/2009, the validity period of SLK in the community forest is 3 years and surveillance must be conducted every year. SLK was granted to the GJM, KWML and APHRW on October 10th 2011, thus the surveillance should have been performed on October 10th of 2012. However, GJM, KWML and APHRW didn't have any money to pay for the surveillance cost and finally they send a formal letter to PT-Sucofindo SBU-SICS asking for the postponement of the surveillance. However, PT-Sucofindo SBU-SICS are required to stick to the regulations and their own system, so they issued several policies as follows (Sucofindo, 2012):

1) The postponement of surveillance couldn't be granted if 12 months have passed since SLK had been issued on October 10th 2011.
2) The suspension of SLK will be proposed to the Technical Review of PT-Sucofindo SBU-SICS against GJM, KWML and APHRW for a period of 3 months starting from October 10th 2012.
3) If the surveillance was conducted before January 9th 2013 then the status of suspension will be automatically abolished. However, if the surveillance was not performed until January 9th 2013 then the revocation of SLK will be proposed to the Technical Review of PT-Sucofindo SBU-SICS.

At the beginning of 2013, MFP II again provided the funds for surveillance in KWML and APHRW, thus their certificates were not revoked. In Wonosobo, the surveillance process was facilitated again by ARuPA. Meanwhile in Gunungkidul the surveillance was facilitated by ARuPA, SHOREA, and Dishutbun Gunungkidul. However, surveillance in GJM was not carried out because they had gained the PHBML certificate on November 14th 2012 (LEI, 2012). This decision was made at a meeting of the GJM board members by considering the new regulations of Permenhut no.P.68/Menhut-II/2011. It was stated that the community forest that had gained voluntary forest certification was not obligated to be verified under the the Indo-TLAS scheme. Therefore GJM did not carry out the surveillance of the Indo-TLAS. Meanwhile, GJM was funded by the Centre of Standardization and Environment (Pustandling, the MoF) and facilitated again by ARuPA to gain the PHBML certificate:

"In November 2012, we gained the PHBML certificate, which was funded by Pustandling and the application process was facilitated again by ARuPA. After the new Permenhut statement

that if we have gained a voluntary forest certification such as PHBML, and then we don't need to have SLK. That is why GJM did not conduct surveillance of the Indo-TLAS and let PT-Sucofindo revoke the SLK" (R4, 2013).

3.3.3 The supporting and inhibiting factors

The Indo-TLAS policy measures have several supporting and inhibiting factors that came from inside and outside of the association/cooperative. These factors are based on the policy measures of the Indo-TLAS in Blora, Gunungkidul, and Wonosobo, which include preparation, facilitation, verification, and surveillance. The supporting factors of the Indo-TLAS implementation can be seen in table 17. Meanwhile the inhibiting factors are described in table 18.

Table 17: The supporting factors of the Indo-TLAS policy measures in Blora, Gunungkidul and Wonosobo

Policy measures of the Indo-TLAS in the community forest	The supporting factors		
	GJM Blora	KWML Gunungkidul	APHRW Wonosobo
Preparation and facilitation of the Indo-TLAS measures			
1) Coordination and socialization	▪ Positive response of Dishutbun ▪ Facilitation from ARuPA and forestry extension worker ▪ Funded by MFP II	▪ Facilitation from ARuPA and SHOREA ▪ Funded by MFP II	▪ Facilitation from ARuPA and forestry extension workers ▪ Funded by MFP II
2) Village identification process	▪ The potential of the community forest area ▪ The presence of FFG in each member village ▪ Plantungan village as a pioneer site ▪ Recommendation from Dishut Blora	Not applicable	▪ The potential of the community forest area ▪ The presence of FFG in each member village ▪ Some of the existing FFGs have experience of winning national competitions for their community forest ▪ Recommendation from Dishutbun Wonosobo
3) Establishment of association/ cooperative	▪ Facilitation from ARuPA and forestry extension worker ▪ Funded by MFP II ▪ Local wisdom in terms of formation of board members and village coordinators	Not applicable	▪ Facilitation from ARuPA ▪ Funded by MFP II ▪ Local wisdom in terms of formation of board members and village coordinators
4) Capacity building for local people	▪ Facilitation from ARuPA ▪ Funded by MFP II ▪ Participation of local communities in the training	Not applicable	▪ Facilitation from ARuPA ▪ Funded by MFP II ▪ Participation of local communities in the training

Policy measures of the Indo-TLAS in the community forest	The supporting factors		
	GJM Blora	**KWML Gunungkidul**	**APHRW Wonosobo**
5) Fulfilment of the Indo-TLAS standard and application drafting	▪ Facilitation from ARuPA and forestry extension worker ▪ Funded by MFP II ▪ Participation of active members in the fulfilment of all requirements. ▪ The prepared data of organization, maps, and legal documents of forest ownership. ▪ Clear boundaries inside and outside the community forest both natural and artificial.	▪ Facilitation from ARuPA and SHOREA ▪ Funded by MFP II ▪ Participation of active members in the fulfilment of remaining requirements. ▪ The previous experience in gaining PHBML certificate. ▪ The existing data of previous PHBML certification i.e. organization, maps, and SKAU documents. ▪ Clear boundaries inside and outside the community forest both natural and artificial.	▪ Facilitation from ARuPA ▪ Funded by MFP II ▪ Participation of active members in the fulfilment of all requirements. ▪ The prepared data of organization, maps, and legal documents of forest ownership. ▪ Clear boundaries inside and outside the community forest both natural and artificial.
Verification and surveillance of timber legality			
1) Verification	▪ Facilitation from ARuPA and forestry extension worker ▪ Funded by MFP II ▪ The completion of the CAR by local communities ▪ The presence of data of forest land ownership in the village office	▪ Facilitation from ARuPA and SHOREA ▪ Funded by MFP II ▪ The completion of the CAR by local communities ▪ The presence of data of forest land ownership in the village office	▪ Facilitation from ARuPA ▪ Funded by MFP II ▪ The completion of the CAR by local communities ▪ The presence of data of forest land ownership in the village office
2) Surveillance	Not applicable	▪ Facilitation from ARuPA, SHOREA, and Dishutbun Gunungkidul ▪ Funded by MFP II ▪ The completion of the CAR by local communities ▪ The addition of 3 village members and forest area around 500 ha	▪ Facilitation from ARuPA ▪ Funded by MFP II ▪ The completion of the CAR by local communities

Source: Processed primary and secondary data

According to table 17, the supporting factors of the Indo-TLAS policy measures have several similarities and differences among the three study areas. The similar supporting factors of the implementation of the Indo-TLAS include the facilitation from ARuPA, the funding of MFP II, the presence of an FFG in each village, local wisdom and knowledge, and the clear boundaries of the community forest. Meanwhile, the different supporting factors include the response and support of Dishut/Dishutbun/forestry extension workers, the participation of local communities, and previous experience in gaining forest certification.

Table 18: The inhibiting factors of the Indo-TLAS policy measures in Blora, Gunungkidul and Wonosobo

Policy measures of the Indo-TLAS in the community forest	The inhibiting factors		
	GJM Blora	**KWML Gunungkidul**	**APHRW Wonosobo**
Preparation and facilitation of the Indo-TLAS measures			
1) Coordination and socialization	▪ The presence of the Indo-TLAS and PHBML leads to ambiguity and confusion among local farmers concerning forest verification and certification ▪ Misperception of the purpose of the Indo-TLAS (some people thought it would increase the tax on forest land) ▪ The huge gap between people's knowledge and the Indo-TLAS policy	▪ The absence of coordination between ARuPA/SHOREA and Dishut Gunungkidul ▪ The presence of the Indo-TLAS and PHBML leads to ambiguity and confusion concerning local farmers towards forest verification and certification ▪ The huge gap between people's knowledge and the Indo-TLAS policy	▪ The lack of support from Dishutbun officers/forestry extension workers ▪ The presence of the Indo-TLAS and PHBML leads to ambiguity and confusion among local farmers concerning forest verification and certification ▪ Misperception of the purpose of the Indo-TLAS (some people thought it would increase the tax on forest land) ▪ The huge gap between people's knowledge and the Indo-TLAS policy
2) Village identification process	▪ The Indo-TLAS' rejection from one head of the village (only at the beginning process)	Not applicable	▪ The unpreparedness of other villages thus they were not appointed
3) Establishment of association/ cooperative	▪ The lack of written documentation due to the cultural patterns of local communities in the organization ▪ The private ownership of the community forest leads to incomplete participation in GJM ▪ The unavailability of legal documents of forest ownership meant the local people could not join GJM	Not applicable	▪ The lack of written documentation due to the cultural pattern of local communities in the organization ▪ The private ownership of the community forest leads to incomplete participation in APHRW ▪ The unavailability of legal documents of forest ownership made the local people could not join APHRW
4) Capacity building for local people	▪ The limited number of participants	Not applicable	▪ The limited number of participants
5) Fulfilment of the Indo-TLAS standard and application drafting	▪ Limited amount of time to prepare the required data ▪ Some people did not want to provide the legal documents of	▪ Very limited amount of time to prepare the required data ▪ Some people did not want to provide the legal document of	▪ Limited amount of time to prepare the required data ▪ Some people did not want to provide the legal documents of forest

Policy measures of the Indo-TLAS in the community forest	The inhibiting factors		
	GJM Blora	KWML Gunungkidul	APHRW Wonosobo
	forest ownership due to its privacy and value ▪ Some people had to be paid in preparing the requirements ▪ The presence of passive members	forest ownership due to its privacy and value ▪ Some people had to be paid in preparing the requirements ▪ The presence of passive members	ownership due to its privacy and value ▪ Some people had to be paid in preparing the requirements ▪ The presence of passive members
Verification and surveillance of timber legality			
1) Verification	▪ The inability of local communities to pay the verification costs ▪ The invalidity of legal documents of forest ownership i.e. SPPT ▪ Some sampling areas hard to access	▪ The inability of local communities to pay the verification costs ▪ The invalidity of legal documents of forest ownership i.e. SPPT	▪ The inability of local communities to pay the verification costs ▪ The invalidity of legal documents of forest ownership i.e. SPPT ▪ Some sampling areas hard to access
2) Surveillance	▪ The inability of local communities to pay the surveillance costs	▪ The inability of local communities to pay the surveillance costs	▪ The inability of local communities to pay the surveillance costs

Source: Processed primary and secondary data

The inhibiting factors of the implementation of the Indo-TLAS, as shown in table 18, have some similarities and differences throughout the three study areas. The similar inhibiting factors are the presence of the Indo-TLAS and PHBML, the unaffordable verification costs, and the nature of community forests as privately owned forests. Meanwhile, the different inhibiting factors are mainly the huge difference between local knowledge and the Indo-TLAS policy and the limited amount of time to prepare the Indo-TLAS.

3.4 Conclusion

The development of the Indo-TLAS was triggered by the common need to combat illegal logging and to pursue good forest governance in Indonesia. This policy was made by using a multi-stakeholder system and therefore there was a shift from the previous forest verification system of the bureaucratic state to hybrid governance. Due to the nature of the Indo-TLAS being mandatory for all forest types, community forests became one of the objects of this policy. As a result, the policy design of the Indo-TLAS in community forests consists of a definition, objectives, legal bases, schemes, components, verification procedures, and standards. Meanwhile, preparation, facilitation, verification, and surveillance were measures of the Indo-TLAS policy in the community forests.

CHAPTER 4: THE EFFECTS AND EFFECTIVENESS OF THE INDO-TLAS IN THE COMMUNITY FOREST

The purpose of this chapter is to describe the main findings of the effects of the Indo-TLAS on local communities in terms of forest management. Furthermore, the effectiveness of the Indo-TLAS in the study areas, and in particular institutional and target-group effectiveness, will be assessed as well as the advantages and disadvantages of the Indo-TLAS for local people. Finally, the last section will present improvement suggestions regarding the implementation of the Indo-TLAS in the community forests.

4.1 Effects of the Indo-TLAS on local communities

As the Indo-TLAS has been recently implemented in the community forests the effects of the Indo-TLAS on the behaviour of local communities, in term of forest management, were not easily recognized. However, the effects of forest management and administration, timber harvesting and marketing and external relations of the association/cooperative will be described in this sub-chapter.

4.1.1 Forest management and administration

Whether the Indo-TLAS had been implemented or not, local communities always used local wisdom to manage their forests and this led to good forest management. The following statement describes how the local communities manage their forests sustainably:

> *"The achievements of sustainable forest management depend on the mind-set and behaviour of the forest owners. For the local people, they never plant trees in s monoculture system. They always utilize their land by using agroforestry systems, so, they could use agricultural products to fulfil their daily needs and timber products to fulfil their future or their own consumption" (R35, 2013).*

Instead of fulfilling their needs, the local people also aimed to protect the surrounding environment:

> *"Besides saving for the future need, the community forest also aims to protect the environment and preserve the water source"* (R22, 2013).

Even though local wisdom in managing the forests is still present, there were several effects of the implementation of the Indo-TLAS on the behaviour of local community in terms of forest management in Blora and Wonosobo. Meanwhile, in Gunungkidul community behaviour has changed since they gained the PHBML certificate in 2006. These changes in local behaviour had many similarities. Firstly, one of the effects of the Indo-TLAS was to put unwritten aspects of forest management into writing. They now have standard operational procedures of community forest management, which consist of guidance on planting, maintenance, and harvesting. For example, local people are prohibited to fell trees, which have a diameter of less than 10 cm, in order to promote sustainability. However, this rule somehow conflicted with the unusual needs of local people who wanted to register their children to the school, pay the health care, celebrate weddings or hold funeral ceremonies. Moreover, it was also stated that if local people fell one tree then they must replant at least 3-5 trees:

"There was a group regulation that said if we cut down one tree, we should replant as many as three trees. Luckily, the local people always replanted more than 3 trees" (R40, 2013).

Secondly, there was a shift in the local perceptions of good forest management towards more scientific and formal methods. As a result, some of the local communities have been able to increase their capacity to practise formal management and perform their internal mechanisms of monitoring and reporting. Furthermore, the Indo-TLAS brought about a change in the administration and governance of community associations/cooperatives. The local communities use formal management practices such as association/cooperative conferences, formal board member meetings, and formal correspondence with external stakeholders, and public speaking on formal occasions. The association/cooperative also has a formal structure including an advisor, a board of controllers, board members, and a village coordinator that leads on formal coordination and communication. Moreover, they have formal documents such as notarial deeds, statutes, standard operational procedures, profiles of association/cooperation and guest books. The following statement describes the change in association administration in Wonosobo:

"After gaining SLK, APHRW made a profile on the association. In addition, we have a specific guest book that recorded the stakeholders who came here and have an interest in the Indo-TLAS" (R39, 2013).

However, there was lack of formal recording and monitoring of management activities in Blora:

"GJM documents were not complete and not available in just one place. Most of the documents were available in Plantungan village (secretariat office) and also in Tempuran (residence of GJM secretary). Actually, this is the special feature of local organizations that more priority is given to activity implementation rather than administration or documenting. Even worse, we sometimes used word of mouth to invite board members to regular or incidental meetings" (R8, 2013).

Based on interviews and existing data, several important formal activities of the association/cooperative, after gaining SLK, can be seen in table 19.

Table 19: The important formal activities of GJM, KWML and APHRW after gaining SLK

Association/ cooperative	The important formal activities after gaining SLK
GJM	▪ GJM proposed, managed and reported the implementation program of a Community Nursery (*Kebun Bibit Rakyat*/KBR)[5]. The exactly operational cost to produce 40,000 tree seedlings, granted to GJM, was $ 5,555.56 (1 $ = Rp 9,000). ▪ GJM has proposed the soft loan of logging postponement to the Public Service Agency (*Badan Layanan Umum*/BLU), the MoF[6]. Due to the on-going eligibility, this proposal has not yet been approved. ▪ GJM established the cooperative, which aimed to provide a service of saving and loaning for the GJM members.

[5] This program was launched by Ditjen BPDAS&PS, the Mof on June 2010 and aimed to support the program of forest and land rehabilitation. This nursery is directed to provide seedlings of hardwood plants or multi-purpose tree species. The requirements of FFG, who will implement this program, consist of at least 15 members and cover at least 40 ha of replanted forest. This program was regulated under Permenhut no. P.24/Menhut-II/2010 jo. P.46/Menhut-II/2010 jo. P.12/Menhut-II/2013 (MoF, 2013b).

[6] The soft loan for community forest development was launched by BLU, the MoF on 2012. This soft loan is directed for planting, logging postponement, maintenance, agroforestry, and enrichment (Suara-Pembaruan, 2013).

Association/ cooperative	The important formal activities after gaining SLK
	▪ GJM prepared for and proposed the PHBML certificate. ▪ GJM set up an official email address (jatimustika218@yahoo.co.id) to communicate with the Indo-TLAS stakeholders. ▪ The chairman of GJM trained as an official publisher of the SKAU for the GJM members.
KWML	▪ KWML coordinated with Dishutbun Gunungkidul to expand the community forest area to ill be verified under the Indo-TLAS scheme. ▪ KWML coordinated with Dishutbun Gunungkidul, ARuPA and SHOREA to prepare for the surveillance of the Indo-TLAS in 2013.
APHRW	▪ APHRW proposed the soft loan of logging postponement to BLU, the MoF. The first loan of $ 22,222.22 (1 $ = Rp 9,000) for 37 members in Kali Mendong village was approved by BLU, the MoF. ▪ APHRW established the *Hutan Rakyat Lestari* cooperative, which aimed to provide a service of saving and loaning for GJM members. ▪ APHRW proposed the financial support to Ditjen BPDAS&PS, the MoF, for sawmill manufacturing in 4 villages. ▪ APHRW proposed the facilitation[7] of the Indo-TLAS to Ditjen BUK, the MoF, for community forests outside of Wonosobo such as Kebumen, Temanggung, Magelang, and Banjarnegara districts. ▪ APHRW made and managed a nursery of sengon (*Paraserianthes falcataria).* ▪ APHRW coordinated with ARuPA to prepare for the surveillance of the Indo-TLAS on February 4th 2013. ▪ APHRW made a BlogSpot of *Hutan Lestari* (aphrwb.blogspot.nl) as a social network and provide a profile and details of APHRW's activities.

Source: Processed primary and secondary data

4.1.2 Timber harvesting and marketing

Before the Indo-TLAS was introduced into the community forests, the local people usually performed conventional timber harvesting and their forest remains sustainable. This practice had been studied many times and showed the sustainable community forest management:

> *"Based on several previous research projects, the local communities have their own conventional model of timber harvesting. They never harvest more timber than is allowed. When their timber can be sold easily, forest sustainability will be always maintained, because by gathering the money from timber, they will replant more than the number of harvested trees" (R52, 2013).*

As the Indo-TLAS and PHBML facilitation was done simultaneously in GJM and APHRW, forest inventory was also performed. Meanwhile, KWML has been performing this inventory since the preparation of PHBML in 2006. The aim of forest inventory is to find out the total potential of the forest and the acceptable rate of the cutting of all tree species, both annually and monthly, which can be seen in table 20. The results of this inventory have been incorporated into the internal rules that state that the amount of timber harvested should not exceed the cutting allowance.

[7] This project was launched in 2013 by Ditjen BUK, the MoF. They budgeted $ 322,222.22 (1$ = Rp 9,000) for the facilitation and verification in the 42 units of community forest/small scale timber industry throughout Indonesia (R48, 2013).

Table 20: The total potential of standing forest and allowable cutting in GJM, KWML and APHRW

Association/ cooperative	Total of verified community forest area (ha)	Total potential of standing forest (m^3)	Cutting age (year)	Allowable annual cutting (m^3)	Allowable monthly cutting (m^3)
GJM	500.36	36,120	10	7,224	602
KWML	594.15	10,218	10	1,626	136
APHRW	1,228.65	150,094	6	50,031	4,169

Source: Processed data (APHR, 2011; KWML, 2011; Purwanto, 2011)

At the grass roots level, even though the written mechanism and the cutting allowance were available, the local farmers somehow did not use this as guidance when harvesting timber. They still used the conventional method in which only old trees were cut down, unless they had an unusual need. However, at the board members level, they somehow used the cutting allowance as consideration to reject the market demand. The following statement describes how KWML bargained with the timber industry:

> *"KWML rejected the timber industry who asked us to supply as much as 100 m^3 of teak timber per month. Meanwhile, if we break down the allowed cutting into each tree species in our area, the volume of teak allowed to be cut down is only around 60 to 70 m^3 per month. Therefore, we did not fulfil the demand for teak timber in our area" (R25, 2013).*

Different responses from board members and local farmers also exist in the practice of timber marketing. On the one hand, to increase the price of timber, the board members tried to truncate the chain of traditional timber marketing. They directly sold the timber to the industry without the intermediaries of small timber traders. On the other hand, the local farmers still performed traditional marketing, in which they sold the timber to small and local traders. They used the standing forest purchasing system, so they bought the timber in standing condition. The inverse practice between traditional and modern marketing is shown in the following statement:

> *"The local farmers were still carrying out traditional marketing in which they sold their timber to local traders. The trader bought the timber from standing-trees and paid in advance. Most local farmers were not willing to sell their timber to the association/cooperative, because they purchased the log trees instead of standing trees. The local people were afraid that if the transaction was cancelled they would lose their harvested timber" (R24, 2013).*

Furthermore, the local farmers never kept the timber transportation documents due to the complicated procedure before Permenhut no.P.30/Menhut-II/2012 was issued:

> *"Timber trading is still carried out traditionally whereby we sell our standing timber only to local traders. Then we don't look after the timber transportation documents, because it has already been handled by the trader" (R14, 2013).*

Likewise,

> *"Due to the complicated procedure in making an official document of timber transportation, the local people handed it over to the local trader. Thus the timber price was decreased by the local trader, because they alone have to pay the document fee" (R8, 2013).*

Hereinafter, the timber industry that had SLK has a choice to buy timber that complies with P.30/Menhut-II/2012 or timber that comes from the Indo-TLAS verified forest. As a result,

community legal timber has not been sought after by the industry. This circumstance has been a direct financial hindrance on Indo-TLAS timber:

> *"Sing tuku ora teko-teko, sing teko ora tuku-tuku[8] (the one who buys legal community timber never comes, the one who comes never buys it)" (R1, 2012).*

Nevertheless, the partnership with the verified timber industry started to become established after the association/cooperative obtained SLK. On 30th of April 2012, GJM partnered with PT-Djawa Furni Lestari[9] under the MoU partnership with community forest development. This MoU was signed by Dishut Blora, GJM and PT-Djawa Furni Lestari. The aim of this partnership is to ensure the supply of community timber for PT-Djawa Furni Lestari and to strengthen the institution of GJM in order to increase the incomes of local farmers. However, there was no transaction of legal timber among them due to the high transportation costs and the price mismatch:

> *"GJM has cooperated with PT-Djawa Furni Lestari, a furniture industry based in Yogyakarta. However, we didn't have a timber trade transaction, maybe because the transaction cost was too high due to the huge distance between Yogyakarta and Blora. In fact timber prices in Blora were higher than those outside of Blora" (R4, 2013).*

At the same time, APHRW also partnered with PT-Albasia Bhumipala Persada[10] under the MoU of partnership community forest development. This MoU was also signed by Dishutbun Wonosobo, APHRW, and PT-Albasia Bhumipala Persada. Following this MoU, several transactions of legal timber trading were conducted in September 2012 (Table 21). The legal timber was sold in the form of logs, and the V-Legal marker was not used yet because it had not been made. However, these transactions did not continue because local people made a loss due to the rejection of several logs:

> *"While we had a transaction of legal timber trading with PT-Albasia Bhumipala Persada, some legal community timbers were rejected by them because these timbers did not conform to industry specifications. That is why the local farmers became reluctant to sell directly to the industry" (R37, 2013).*

Table 21: The trading transaction of legal community timber in Wonosobo

Timber species	Date of transaction	Size of log	Total price (1 $ = Rp 9,000)
Sengon (*Paraserianthes falcataria)*	19th, 20th, 22th September 2012	Length: 130 cm Diameter: 20-40 cm	1978.85
	19th 20th September 2012	Length: 260 cm Diameter: 30-40 cm	2111.11
	26th September 2012	Length: 130 cm Diameter: 20-40 cm	1881.81
	22th, 26th September 2012	Length: 260 cm Diameter: 30-45 cm	1170.98

Source: Processed secondary data

[8] Javanese language

[9] PT-Djawa Furni Lestari has been established since 2003 as an industry and exporter of wooden furniture. This company, which is based in Yogyakarta, has obtained a certification of Chain of Custody from the TUV Rheiland in 2009, but now it is no longer valid (TUV-Rheiland, 2013). They also gained a Chain of Custody certificate from FSC on November 10th 2009 and this will expire on November 9th 2014 (FSC, 2013). Lastly, SLK was granted to this company from PT-Sucofindo on March 3rd 2012 and it will be expire on March 1st 2015 (Djawa-Furni, 2012).

[10] PT-Albasia Bhumiphala Persada has been established since 1989 as an industry and exporter of wood working products. This company, which is based in Temanggung, obtained the Indo-TLAS certification from the BRIK in 2009 (PT-ABP, 2013).

Meanwhile, KWML had a partnership with Kelompok Hara[11], and in particular with PT-Djawa Furni Lestari, after gaining the PHBML certificate. This partnership ran from 2008-2011 under the MoU of the parties i.e. KWML, Kelompok Hara, Maisons du Monde[12], LEI, Pokja Hutan Rakyat Lestari Gunungkidul[13]. The aim of this MoU was to realize sustainable community forest management practices in the Gunungkidul district. Consequently, Kelompok Hara would buy "the green products" from KWML and export them to Maisons du Monde in France (KWML, et al., 2008). Afterwards, there was no longer a partnership with the timber industry, even though they had already obtained SLK in 2011:

> *"We have always cooperated with PT-Djawa Furni Lestari over the three years starting from 2008 to 2011. At that time, we sold timber using the PHBML logo but we only sold around 4-8 m^3 per month in the whole of the KWML area. Afterwards, we had difficulties selling our certified timber due to the limitation of allowed cutting. Lately we haven't had any partnerships with the certified timber industry although in 2011 we obtained SLK" (R25, 2013).*

4.1.3 External relations

The implementation of the Indo-TLAS has also enhanced the professional status of GJM, KWML and APHRW, and their relations with governments, donors, and other external organizations. For example, the community forest in the GJM area gained more attention from Dishut Blora following the Indo-TLAS certification:

> *"Since the Indo-TLAS was applied in GJM, there has been a change of Dishut concern towards the local communities surrounding the forest. They have changed their mind set, simplified the procedure of timber transportation documents, and tend to advocate community timber. They have also appointed two extension forestry workers to further facilitate GJM in maintaining SLK and business in relation with the partnership industry" (R8, 2013).*

Furthermore, KWML had more intensive communication and coordination with Dishutbun Gunungkidul to prepare for the expansion of verified community forest areas in 2013:

> *"Due to the availability of surveillance funds from MFP II, Dishutbun Gunungkidul pays more attention to the preparation of surveillance in KWML. We also proposed some new community associations that we've previously facilitated to be joined in KWML" (R28, 2013).*

Meanwhile, a disharmonious relationship became apparent between APHRW and Dishutbun Wonosobo in particular with in relation to the structure officers. This was triggered by a personal disagreement between some Dishutbun officers towards the implementation of the Indo-TLAS policy in the community forest. The forestry extension workers, however, still somehow facilitated them because after all, their main task is to assist the local people in every forestry program. The following statement presents the relation between APHRW and Dishutbun Wonosobo:

> *"Actually in my personal opinion, the Indo-TLAS should not be implemented in the community forest. The position of the local government, however, must support the national government program. We still deliver these policies to the local people despite our personal disagreement*

[11] Kelompok Hara is an association of Furniture Companies committed to using eco-label certified timbers. The association's members are PT-Djawa Furni Lestari Yogyakarta, CV. Airlangga Mebelindo Design Surabaya, CV. Alpin Furniture Jepara, CV. Kelvindo Jepara, UD. Ellika Jepara, and UD. Karya Jati Jepara (KWML, Kelompok-HARA, Maisons-du-Monde, LEI, & Pokja-HRL, 2008).

[12] Maisons du Monde is a French based company committed to utilizing furniture products made of eco-label certified wood materials from Indonesia (KWML, et al., 2008).

[13] Pokja Hutan Rakyat Lestari Gunungkidul is a multistakeholder working group, whose members consist of a number of Government Officers in Gunungkidul, PKHR, SHOREA, ARuPA and KWML (KWML, et al., 2008).

against them. Nevertheless, our forestry extension workers still facilitate the local people in the field in accordance with their respective tasks" (R35, 2013).

In spite of this poor relationship with the local authorities, the association/cooperative still maintained good relations with the donors, especially with the Ministry of Forestry and MFP II. As a result, GJW was funded by Pustandling, MoF, to gain the PHBML certificate. Meanwhile, the Indo-TLAS surveillance fund was provided by MFP II and directed for KWML and APHRW. Moreover, several national forestry programs have been awarded to GJM and APHRW, namely KBR and soft-loan of logging postponement, respectively.

At the national level, GJM, KWML and APHRW became famous as the first-five community forests in Indonesia to obtained SLK. As a result, they are often invited, by different institutions, as speakers, trainers, exhibitors or just to attend formal meetings both at the local and national levels. Moreover, there were many stakeholders that came to visit to the area with different purposes, such as comparative study, research, surveys, reportage, field training, and even to make films documenting their success story. However, the number and type of these invitations and visits varied among them. Due to incomplete records in the association/cooperative, the only data which can be presented in this report pertains to the number and type of visits and this is based on the guest books of GJM, KWML and APHRW.

Based on the guest book of GJM from June 2011 to February 2013, there were only 24 visits from different stakeholders such as MFP, PT-Sucofindo SBU-SICS, PT-Mutu Agung Lestari, Dishut of Central Java Province, Bogor Agricultural University, Centre of International Forestry Research, Association of Indonesian Community-based Forestry Entrepreneurship, and Tempo Television. However, GJM Blora has never been used as a site for the comparative study of other community forest groups as:

"GJM was frequently invited by related stakeholders, such as ARuPA or MFP, to speak or just to attend meetings. There haven't been any comparative studies from other community forest groups until now, but Bogor Agricultural University conducted the Indo-TLAS research here" (R10, 2013).

Meanwhile, as many as 57 visits occurred in KWML from January 2011 to December 2012 from government and non-government organizations. Most visits related to research and comparative study relating to the development of community forests, including the implementation of the Indo-TLAS and PHBML certification. Some foreign universities have conducted research or comparative study, such as Goettingen University in Germany, Kyushu University in Japan, Australian, Brazilian, Vietnemese Universities, and also the World Bank. Furthermore, KWML was frequently used as a place to practice the Indo-TLAS and SKAU training. The reportage was also conducted by international media and publications such as National Geographic and Jakarta Post.

Likewise, APHRW also received as many as 35 visits from February 2011 to January 2013 from local and national related stakeholders. These visits were about research, comparative study, reportage, audits of BLU and the assessment of national competition. Dresden University of Technology, Germany, also conducted research in APHRW. Nevertheless, the Minister of Forestry directly visited APHRW, met with the local farmers, and gave aid in the form of cash to the value of $ 4,444 (1$=Rp 9,000) to the community association. The following statement is presents the dynamic of external relations in KWML and APHRW:

"KWML and APHRW have been frequently invited by different institutions. They were asked as speakers in conferences and to attend formal meetings and other gatherings. They also often received many visitors from outside and even from abroad for comparative studies or research" (R2, 2012; R24, 2013).

4.2 The effectiveness of the Indo-TLAS in the community forest

The first section presents the institutional effectiveness of the Indo-TLAS and whether the policy measures (outputs) in the three study areas have suitable policy designs. Furthermore, target-group effectiveness will be explored in the last section. This effectiveness will present how the response of local communities towards the Indo-TLAS implementation in term of forest management.

4.2.1 Institutional effectiveness

To assess institutional effectiveness, the policy measures of the Indo-TLAS and its policy design were first compared and assessed on whether the conformity had been met or not. Furthermore, the term "institutional" clearly incorporates the link to the performance of the community association/cooperative that is expected to implement the Indo-TLAS in the community forest. Therefore, the roles of the community association/cooperative, especially the board members and village coordinators, in implementing the Indo-TLAS have also been assessed. Subsequently, the conformity assessment between the Indo-TLAS measures and its policy design in GJM, KWML and APHRW can be seen in table 22.

Table 22: The conformity assessment between the Indo-TLAS measures and its policy design in GJM, KWML and APHRW

Policy measures of the Indo-TLAS	Policy design of the Indo-TLAS	Conformity assessment		
		GJM	KWML	APHRW
Preparation and facilitation				
Socialization and coordination	Definition & objectives of the Indo-TLAS	X	X	X
Village identification process	Collective application of the Indo-TLAS	V	NA	V
Establishment of the community association/cooperative	Legal organization and having a notarial deed	V	NA	V
Fulfillment of the Indo-TLAS standard	Criteria, indicators, and verifiers	V	V	V
Verification and surveillance				
Submission of verification application & document review	Procedure of verification application	V	V	V
Publication of verification plan	Procedure of verification planning	V	V	V
Making of verification plan	Procedure of verification planning	V	V	V
Field verification	Procedure of verification implementation	V	V	V
Verification reporting	Procedure of verification report	V	V	V
Issuance of SLK	Procedure of decision making	V	V	V
Surveillance	Procedure of surveillance	X	V	V

V = conform X = not conform NA = not applicable

In terms of preparation and facilitation, the assessment in table 22 shows that the socialization of the Indo-TLAS objectives in the three study areas did not conform to the policy design. This was caused by the mixing socialization of the Indo-TLAS and PHBML in GJM and APHRW. Meanwhile in KWML socialization was not effective due to the limited amount of time, as it had just begun in June 2013. However, the village identification process and the establishment of the community association have conformed to its policy design, except in KWML due to their existed cooperative. Furthermore, the fulfilment of the Indo-TLAS as well as almost all of the verification and surveillance measures have conformed to its policy design, except the surveillance in GJM. Due to the new regulation of

Permenhut 68/2011[14], they decided not to perform the Indo-TLAS surveillance but they did decide to perform PHBML certification.

Instead of assessing the conformity between the Indo-TLAS measures and its policy design, the roles of GJM, KWML and APHRW in preparation, facilitation, verification, and surveillance of the Indo-TLAS have been assessed. The board members of the association/cooperative have a strong leadership and became the only main actor in performing all activities of the Indo-TLAS verification. However, their roles in implementing the Indo-TLAS have similarities and differences. As a result, the similarities in the roles of GJM and APHRW that have been assessed are as follows:

1) Conducting the socialization of the Indo-TLAS at the village, sub-village and family levels through formal and informal meetings.
2) Establishing the legal community association in which the village members were firstly identified by ARuPA and Dishut/Dishutbun and they were willing to join the community association.
3) Conducting the data collection of legal documents of forest ownership and statement letters of membership.
4) Conducting forest mapping by showing the land borders within and outside the community forests, both natural and artificial.
5) Conducting forest inventory by measuring the height, diameter and number of the standing trees in the community forests. The inventory team in GJM was distributed within and came from each village, while in Wonosobo the inventory team came from Kali Mendong village only.
6) Accompanying the auditor of PT-Sucofindo SBU-SICS in the field while verification was conducted in every village.
7) Managing the internal meeting of the community association. A regular meeting of board members including village coordinators was held once every 35 days[15].
8) Technically organizing the formal event or training of the Indo-TLAS at the local level such as delivering invitations, preparing the venue, food, drink, and other accommodation.

Furthermore, particularly in Wonosobo, APHRW prepared for the surveillance by using the previous data such as notarial deeds, a list of membership, the date detailing the total community forest area, and a map of the community forest. Due to timber trading with the partnership industry, they also provided the legal documents of timber transportation. In this case, they sold Sengon timber so they had to provide the legal documents of invoice/receipt/note of traded timber. Nonetheless, GJM and APHRW had a limited role in preparing the written documents. Therefore, the drafts have always been prepared and provided by ARuPA such as the Indo-TLAS verification application documents, a statute of the association or standard operational procedures of community forest management. Additionally, a technical assistant was also provided by ARuPA to produce the recapitulation of the data of membership and forest land area, and the making of a digital map of the community forest.

Moreover, instead of assistance from ARuPA in Blora, the forestry extension worker also actively assisted the GJM board members in implementing all the Indo-TLAS activities:

> *"The GJM's role in the Indo-TLAS implementation was not entirely independent, as a Dishut/forestry extension worker always facilitated them. However, they were becoming more of an independent group day by the day. They have already had their own official email, and could make decisions by themselves without consultation with the local authorities" (R3, 2013).*

[14] Permenhut no.P.68/Menhut-II/2011 stated that the community forest that has gained voluntary forest certification is not obligated to be verified under Indo-TLAS scheme.
[15] This meeting was called *"selapanan"* in Javanesse language based on the culture of traditional organization.

On the contrary, the roles of APHRW board members were extremely important and they did not get support from a Dishutbun/forestry extension worker as much as in Blora:

> *"As long as we were implementing the Indo-TLAS, we did not get much assistance and support from the Dishutbun/forestry extension worker. If ARuPA had not facilitated us, perhaps our association would be fully independent" (R39, 2013).*

In Gunungkidul, the availability of some required data (i.e. notarial deeds, list of membership, details of the total of community forest area, potential of the standing trees, and community forest maps) resulted in the different roles of KWML in preparing the Indo-TLAS verification. Therefore, the roles of KWML board members are limited to the socialization of the Indo-TLAS, data collection of legal documents of forest ownership, accompaniment of verification implementation, management of the internal meetings, and the technical management of formal events or training of the Indo-TLAS. Similarly, with GJM and APHRW, the document writing of the verification application was fully conducted by ARuPA.

4.2.2 The target-group effectiveness

The target-group effectiveness in GJM, KWML and APHRW was assessed by comparing the responses or behaviour of local communities and the objectives of the Indo-TLAS. The responses of local communities against the Indo-TLAS are related to forest management and administration, timber harvesting and marketing, and external relations. Meanwhile, the Indo-TLAS objectives that will be compared with the local responses are as follows:

1) To implement good forest governance
2) To perform the law enforcement of timber administration
3) To promote the legal timber trade

The objective of good forest governance in KWML was achieved since they obtained the PHBML certificate. Meanwhile in GJM and APHRW, good forest governance was achieved after they gained SLK. This achievement was triggered by several positive changes in local response or behaviour in terms of forest management and administration namely,

1) A change from unwritten forest management into the written forest management.
2) A shift of local perceptions of good forest management towards a more scientific and formal methodology.
3) A change in the administration and governance of the community association/cooperative into formal management, structure, and documentation.

Meanwhile, the objective of the law enforcement of timber administration has not yet been achieved because the Indo-TLAS is ineffective against timber harvesting and marketing. This ineffectiveness can be seen in several negative local responses:

1) Even though the allowable cutting of community forestry has been known, the local people still cut conventional quotas in which they only cut down the old trees unless they had to deal with an unusual need.
2) The local farmers still performed traditional marketing in which they sold timber to small and local traders instead of selling it directly to the timber industry.
3) The local farmers never kept the timber transportation documents due to its complicated procedure before Permenhut no.P.30/Menhut-II/2012 was issued.
4) Community legal timber was not sought after by the timber industry due to the flexible option for them to buy timber that complies with P.30/Menhut-II/2012 or the timber that come from the Indo-TLAS verified forest.
5) The V-Legal marker was not made or used, even though the partnership with the verified timber industry had been established after the association/cooperative obtained SLK.

Nonetheless, the Indo-TLAS' objective of legal timber promotion was not fully achieved by the local communities due to the several changes in local response/behaviour related to external relations:

1) Except for APHRW, there was an enhancement of professional status of GJM and KWML and their relations with the local authorities.
2) GJM, KWML and APHRW still maintained a good relationship with donors, especially with the Ministry of Forestry and MFP II.
3) GJM, KWML and APHRW became famous as the first five community forests in Indonesia that had obtained SLK, thus they have been invited frequently by different institutions as speakers, trainers, exhibitors or just to attend formal meetings, both at the local and national levels.
4) There were many stakeholders that came and visit to their areas with different purposes such as comparative studies, research, surveys, reportage, field training, and even the making of a film documenting their success story.

4.3 The advantages and disadvantages of the Indo-TLAS for local farmers

This sub-chapter will present the community perspectives on the advantages and disadvantages of the Indo-TLAS for local farmers with respect to the institutional and target-group effectiveness. Therefore, these perspectives will be described based on each stage of the Indo-TLAS and the response of local farmers against the Indo-TLAS, related to forest management.

4.3.1 The advantages of the Indo-TLAS for local farmers

Related to the advantages of the Indo-TLAS for the local farmers, there were similarities and differences among the three study areas. These advantages are presented based on the perceived benefits of local farmers who are actively involved in the phase of preparation and verification, verification and surveillance and post-verification. The advantages for them are mainly the improvement of knowledge, skill, and experience and the enhancement of a network and reputation, related to the Indo-TLAS. However, the local farmers who were not actively involved have never felt the benefits of the Indo-TLAS as is highlighted below:

> *"Actually I do not know whether the local farmers in general have noticed the benefits of the Indo-TLAS. For me, as a local farmer who joined the association but was not actively involved, I have never felt the benefits of the Indo-TLAS until now" (R42, 2013).*

Improvement of knowledge, skill, and experience

During the preparation and facilitation phase, the local farmers in Blora and Wonosobo gained new knowledge on the certification and verification of community forests. Even though some of them still could not distinguish between certification and verification, at least they had heard of and knew about it. Meanwhile in Gunungkidul, the term forest certification was not new to the local people because they had obtained a PHBML certificate in 2006. Furthermore, the local farmers in Blora and Wonosobo had also learned new skills on how to perform forest inventory and forest mapping. Meanwhile in Gunungkidul, they had learned this knowledge and skill while they were preparing for PHBML certification in 2006.

As a result, the local farmers could predict the volume of standing trees by measuring their height and diameter. Thus they could bargain the price of standing trees with the trader. Additionally, they also measured the number of standing trees to find out the potential volume of timber in their forest. Nonetheless, they became more aware of the forest borders while the community forest mapping was done. These improvements can be seen in the following statement:

"After the Indo-TLAS preparation, we, as local farmers, knew how to predict the volume of standing trees by measuring their diameters at a height of at least 130 cm above the ground and also by measuring the height of trees. By knowing this volume prediction, we could bargain the price with local traders and they could not cheat us anymore. In the past, they always measured the diameter at a height more than 130 cm above the ground to manipulate its volume. As a result of this improvement we felt rich and proud because now we knew the properties of all standing trees" (R19, 2013).

Due to the establishment of the community association/cooperative, the local farmers and the board members perceived new knowledge on how to manage the organization in a modern and formal way. Moreover, the local farmers in Blora and Wonosobo have also gained experience and knowledge on how to fulfil the Indo-TLAS requirements. Meanwhile, this was the second experience for the local farmers in Gunungkidul in preparing for forest certification.

During the verification phase, the local farmers in the three study areas had similar experiences in submitting applications, being verified by the auditors, and performing the CAR. However, only APHRW and KWML experienced perform the Indo-TLAS surveillance because GJM did not take part in this stage. After obtaining SLK, the partnership between APHRW/GJM and timber industries became established. Consequently, APHRW had the experience of directly selling legal timber to industry partners and handling the documents concerning timber transportation. However, GJM never had this kind of because there wasn't any timber trading between GJM and the industry. Meanwhile, KWML had this experience when they had a MoU with several timber industries in 2008-2011. The experience in Wonosobo is summarised in the following statement:

"By having the partnership with the verified timber industry, at least we have tried to directly sell legal timber to them. Besides that, we learned how to obtain the legal documents of timber transportation" (R39, 2013).

Enhancement of network and reputation

While implementing the Indo-TLAS, the presence of ARuPA as a facilitator benefitted the local farmers. They received a lot of assistance and facilitation in terms of the establishment of community associations, the fulfilment of the Indo-TLAS, application drafting, field verification, and surveillance. Consequently, the local farmers formed additional networks with ARuPA and other external organizations such as Dishut/Dishutbun. Likewise, by establishing the community association, the local farmers also had a new forum to form friendships and relationships instead of formal relations with other village members. Besides that, they also gained a network of funding from MPF II for verification in the three study areas and surveillance in KWML and APHRW. So they did not have to spend their money to prepare and implement the Indo-TLAS in the community forest:

"Indeed we were so lucky, because we have been funded by MFP for the Indo-TLAS implementation. The other community forests might not be supported like this in implementing this mandatory policy" (R37, 2013).

After the first-five community forest obtained the Indo-TLAS, the reputation of their association/cooperative grew and they became famous throughout Indonesia. The board members in particular have been frequently invited by different institutions as a speaker, trainer, exhibitors or just attending the formal meeting both at the local and national level. Moreover, many stakeholders came and visit to their area with different purpose such as comparative study, research, survey, reportage, field training, and even the film making of their successful story. The number of invitations and visits was different in the three study areas. In addition, due to their achievements, the local farmers in Blora and Wonosobo welcomed the national forestry programs of KBR and soft-loan of logging postponement, respectively.

4.3.2 The disadvantages of the Indo-TLAS for local farmers

The disadvantages are also presented based on the perceived benefits of local farmers who were actively involved in the phases of preparation and verification, verification and surveillance, and post-verification. Most of them stated that there were no disadvantages of the implementation of the Indo-TLAS in the three study areas as in the following statement:

> *"We think we did not feel any disadvantage of the implementation of the Indo-TLAS. In fact, the Indo-TLAS was compulsory for the community forest and we have already obtained certification. Moreover, as far as I know there was also financial support from donors for its implementation. So, the Indo-TLAS was not detrimental to all local farmers" (R29, 2013).*

However, some of the local farmers felt burdened by this the Indo-TLAS policy because they needed to make a concerted effort to understand the policies. Besides, the local farmers who were involved in the implementation of the Indo-TLAS wasted their work-time. Sometimes there was little money available for the local farmers who conducted forest inventory or provided their own transportation to attend meetings with ARuPA. As well as being time consuming, the Indo-TLAS caused stress, especially for = board members/village coordinators due to the limited amount time and skill:

> *"The board members/village coordinators were stressed in managing people in the villages, having to sometimes visit them one by one, door to door, only for data collection. Furthermore, we have to catch up on the deadline from the facilitator and we got stressed by the administration work" (R5, 2013).*

Due to the misperception of premium prices, many local farmers stated that the disadvantage of the Indo-TLAS was that there wasn't any price difference between verified timber and unverified timber:

> *"Even though we have the Indo-TLAS, we have never felt the premium price of our timber. The price of our timber and neighbouring timber who did not obtain the Indo-TLAS, was still same: no difference at all" (R12, 2013).*

4.4 Improvement suggestions of the Indo-TLAS in the community forest

Based on the interview with the key informants and local farmers in the three study areas, there were several improvement suggestions for the implementation of the Indo-TLAS in the community forests. These suggestions have been explored based on policy design, policy measures, institutional effectiveness, and target-group effectiveness of the Indo-TLAS.

Policy design of the Indo-TLAS

Due to the several limitations of community forest management, there were some key informants and local farmers who stated that the Indo-TLAS should not be applied in the community forests:

> *"The government should have the courage to declare that community timber is legal. As long as law enforcement against illegal logging is well implemented, the timber from community and state forests will not mix. Consequently, the Indo-TLAS did not need to be implemented in the community forests due to its complexity and high cost" (R48, 2013).*

Other than of the extreme suggestion above, many rationale recommendations for the improvement of the Indo-TLAS policy design in the community forest have been made, in relate to its objectives, legal bases, schemes, components, and verification procedures. However, there was no improvement suggestion related to the standards of the Indo-TLAS because everyone thought these standards were sufficient and could be applied in the community forests. Additionally, these standards were the simplest among all the Indo-TLAS standards for other forest types.

Definition, objectives, and legal bases

1) The Indo-TLAS in the community forest throughout Indonesia should be implemented by the end of 2013 was not rational. This target should be extended due to the high number of community forest areas. In fact, until May 2013 the verified community forest was only 0.12% of the total area of the community forests.
2) The verification cost in the community forests should be reduced as much as possible so that the local people can easily pay it themselves.
3) The existing regulations that relate to the Indo-TLAS in the community forest should not be revised often due to the limited capacity of local farmers in understanding these regulations.
4) The local regulations of timber procurement systems must be established in which the local offices should prioritize the use of legal timber from verified community forests. The first step was taken in Gunungkidul in terms of the issuance of recommendation letters by the Regent to all offices in Gunungkidul to use community legal timber.
5) The verified timber industry was recommended to use some raw materials from the verified community forest.

Scheme, components & verification procedures

1) Encouraging LP&VI to have a branch office in every capital of every province. This idea aims to reduce the verification cost and in particular the transportation cost for the auditor team.
2) The auditor personnel should consist of one person and she/he doesn't need to have prior internship experience. One person due to the simple standards of the Indo-TLAS in the community forest.
3) Related to the legal documents of forest land ownership on Java Island, the verification could be done in the village office since this office recognizes the land ownership of the people. If the local farmers have to each prove ownership, it would burden the local farmers, especially the board members/village coordinators who have to collect these documents. However, different procedures of forest land ownership verification outside of Java Island should be applied due to the high number of land tenure conflicts.
4) The further research of the surveillance period needs to be conducted to find out how long the surveillance must be done. This period should be considered bearing in mind the surveillance cost, which has to be paid by the local community.

Policy measures of the Indo-TLAS

The improvement suggestions of the Indo-TLAS policy measures have been explored based on the implementation phase of preparation, facilitation, verification, and surveillance as follows:

1) The socialization of the Indo-TLAS definition and objectives for the local farmers should not be merged with PHBML certification in order to keep its clarity and clearness.
2) The facilitation projects led by the MoF for the implementation of the Indo-TLAS in the community forests should be continued and increased in number. At the district level, this facilitation should be conducted by the Dishut/Dishutbun/forestry extension worker as the forestry local authority. Furthermore, the allocated time for this facilitation should be extended as the previous time of 6 months was not enough to establish a strong community association/cooperative.
3) The training of the Indo-TLAS should be conducted for the local authority officers such as Dishut/Dishutbun/forestry extension workers and village officers.

Institutional effectiveness of the Indo-TLAS

The improvement suggestions of institutional effectiveness of the Indo-TLAS have been explored and are mainly based on the role of the community association/cooperative in implementing the Indo-TLAS. These are as follows:

1) Increasing capacity building to create a professional human resource in the community association/cooperative. So, the next election process of board members would be based on professional human resource instead of culture/personality.
2) Formal management should be improved in term of documenting the activities, updating the members and their forest area, monitoring and reporting.
3) Internalization and socialization of the Indo-TLAS should be increased by the community association, especially for local farmers. It should focus only on the Indo-TLAS scheme since there is a huge gap in local knowledge regarding the Indo-TLAS.
4) Improvements in the coordination and communication within village members especially in Gunungkidul.
5) Improvements of methods to enhance the spirit of board members/village coordinators in managing the association/cooperative.

Target-group effectiveness of the Indo-TLAS

The improvement suggestions of target-group effectiveness of the Indo-TLAS have been explored based on the responses of local farmers towards forest management and administration, timber harvesting and marketing, and external relations:

1) The community association/cooperative should promote the Indo-TLAS more often in order to enhance the competitiveness of the legal timber price.
2) The local timber trades should be recruited as members of the community association/cooperative to complete the timber transportation documents.
3) The legal timber traded through the association/cooperative should cost more expensive than the local price. The tax on traded timber (as much as 0.25% of the cubic price) will be collected by the board members in order to pay for the surveillance cost. Additionally, the V-legal mark must be made and printed on each timber product.
4) The new system of timber transportation must be supported by Dishut/Dishutbun and village officers. Also, the number of SKAU issuers should be increased in every district.
5) Dishut/Dishutbun should encourage the local industries within their districts to obtain SLK and form partnerships with the verified community forests. So, there will be mutual benefits for both of them in terms of legal timber trading.
6) Establish the business management unit which will be focused on the improvements in trading of legal timber products and their derivatives, for instance the establishment of a sawmill unit. However, it will need a legal permit and capital funding for the first establishment.

Lastly, there was an important suggestion that has not been covered above, in which the local farmers should be concerned about prosperity while implementing the Indo-TLAS in the forests. Therefore, the forestry programs that could increase local income are urgently needed, for instance the land utilization under the standing trees in Wonosobo for snack-fruit plantations. Furthermore, ongoing evaluation of the implementation of the Indo-TLAS in the community forest should be performed in order to improve its policy design, policy measures, effects and effectiveness.

4.5 Conclusion

The implementation of the Indo-TLAS has had several effects on local behaviour in terms of forest management and administration and also on behaviours with governments, donors, and other external organizations. Meanwhile, it has had no effect on the local behaviour of timber harvesting and marketing. Furthermore, in terms of institutional effectiveness, it can be generally concluded that the policy measures of the Indo-TLAS have matched with its policy design. The roles of the board members and village coordinators in implementing the Indo-TLAS have been very significant. However, they could not have a fully independent role, because they have still been facilitated either by ARuPA or a forestry extension worker. Moreover, in terms of target-group effectiveness, good

forest governance has been well implemented in the three study areas. Subsequently, the law enforcement of timber administration has not been achieved yet because the Indo-TLAS is ineffective against timber harvesting and marketing. In addition, the Indo-TLAS' objective of legal timber promotion has not been fully achieved by the local communities, especially by APHRW in terms of their relation with the local authorities.

Even though there were no advantages or disadvantages of the Indo-TLAS for some local farmers, several advantages have been recognized, namely the improvement of knowledge, skill, and experience for local farmers in terms of the Indo-TLAS, and the enhancement of networks and the reputation of the community association/cooperative. Furthermore, several disadvantages have been described. The hard efforts of local farmers to understand the policies, the local farmers who were involved in the Indo-TLAS implementation have wasted work-time; this has been stressful for board members who have had to collect data for the Indo-TLAS and no premium price for the legal community timber. Lastly, the improvement suggestions have been explored based on policy design, policy measures, institutional effectiveness, and target-group effectiveness of the Indo-TLAS.

CHAPTER 5: DISCUSSION

The aim of this chapter is to discuss the empirical findings with regard to policy design, measures, effects, effectiveness, contributions, and improvements of the Indo-TLAS in the study areas. These empirical findings are further reflected with respect to the theoretical considerations of timber legality verification, community forest management, and policy evaluation. Lastly, this chapter also gives the author's reflection on the theoretical and methodological approaches employed in this study.

5.1 Reflection on research findings

5.1.1 Robust vs. paper tiger of the Indo-TLAS policy design

Brown (2005) stated that timber legality verification system is triggered particularly, but not only, by donors and many of civil society in timber importing countries. In Ecuador and Philippine, the main driver to overcome illegal logging have been internal, and they established "a collective management arrangement" to bring together the local stakeholders to agree on "internal legitimacy" (Brown et al., 2009, p. 13). Meanwhile, the development of the TLAS in Ghana, Cameroon, and Indonesia has strongly been influenced by the EU as one of timber importing countries. Therefore, the policy design of the TLAS much referred to the EU proposed design, including the Indo-TLAS policy design (Brown et al., 2009). As a result, the policy design of the Indo-TLAS was robust with respect to its principles of representativeness, transparency, and credibility.

As we have seen in chapter 3, the principle of representativeness was reflected by two indicators. First, definition of legal timber and the Indo-TLAS standard have been clearly defined and agreed by many involved stakeholders. Second, there was a shift from the state forest verification system (Figure 7) into the hybrid one (state and non-state actors) as an improved system to control the timber supply chains. This shift can also be seen by the presence of KAN as an accreditation body, LP&VI as an independent verification body and JPIK as an independent monitoring. Furthermore, to ensure the transparency of the Indo-TLAS system, KAN was authorized to accredit the independent verification body that will perform the compliance verification. Unlike in the previous system, LP&VI was accredited by the MoF, which might tend towards state domination. Moreover, the establishment of JPIK as a new independent entity was aimed to monitor the transparency of the timber legality verification. Lastly, as a commitment of the government of Indonesia to enforce the legal timber logging and trading, the principle of credibility was proved by the issuance of V-Legal mark and logo of verified timber. Additionally, the comprehensive scheme and the complete procedures of the Indo-TLAS were also adopted.

The Indo-TLAS policy design was not differing from the global design of timber legality verification system namely legality definition, verification and surveillance, accreditation, independent monitoring, and timber supply chain (Arts & Buizer, 2009; Brown et al., 2009; Cashore & Stone, 2010; Cashore & Stone, 2012). Furthermore, this design also matched with the main characteristics of timber legality verification that have been classified by Cashore & Stone (2012), which can be seen in table 23.

Table 23: The match between the policy design of the Indo-TLAS and the main characteristics of timber legality verification

Classification	Main characteristic of timber legality verification	Policy design of the Indo-TLAS
Role of Government	Sovereign governments decide rules	A set of regulations: Permenhut 38/2009 and its derivatives
Policy Scope	Limited	Limited on chain of custody of timber and its legal trading
Assurance	Verification required	Verification procedures and standard of the Indo-TLAS have been established
Role of Markets	Tracking along supply chain	Verified timber industry only used the legal timbers that comply with Permenhut 30/2012 and the legal timber from verified forest
Economic Incentives	Weeding out supply increases prices	The verified community forests can directly sell the legal timber to the industry without a local trader and this will cause the increase in timber prices

Source: Cashore & Stone (2012, p.15) and the main findings

Based on this match analysis, the Indo-TLAS policy design had several strengths. First, the sovereignty of the government to issue a set of regulations that related to the Indo-TLAS has strengthened its policy design. Consequently, the nature of the timber verification became mandatory for all forest management units in Indonesia. This mandatory verification scheme was expected to be able to accelerate the law enforcement of timber administration and the good forest governance. Second, the verification procedures were established to ensure that the harvested and traded timbers are legal according to the Indo-TLAS regulation. Lastly, in a period of transition from the previous verification system to the Indo-TLAS, the timber industry had the flexibility to use the legal timbers that compliance to the timber administration (PUHH) or the legal timbers from verified forest.

Instead of those strengths, this policy design had different weaknesses. First, it was only limited on how to track the legal timber starting from the verified forest to the verified timber industry, and until the exporting gate. It did not cover other aspects that related to the forest sustainability such as ecological and social functions of the forest itself. Second, especially in the community forest, the chain of custody of the harvested and traded timber was a big challenge for the local people. This challenge was that they never kept the legal documents of community timber transportation such as an invoice or a receipt or a note or the SKAU. Lastly, it was not easy for the local people to sell the legal timber to industry without intermediate of the local trader. They must firstly had the knowledge and skills related to the timber trading and management.

Nevertheless, this robust policy design became a *paper tiger* while implemented in the field, especially in the community forest. As described in table 7, only 0.12 % of the total community forest areas have been certified under the Indo-TLAS scheme until May 2013 (EI, 2013; MHI, 2013; MoF, 2013a; TP, 2013). This number showed very weak enforcement of the Indo-TLAS in the community forest since it was enacted in 2009. The huge distance also emerged between the number of certified community forest and the target of the Indo-TLAS enforcement[16] (Table 9). Furthermore, there were several factors that might cause a *paper tiger* of the Indo-TLAS policy design in the community forest:

[16] Based on Permenhut P.45/Menhut-II/2012, the community forest throughout Indonesia is required to have SLK before 31st of December 2013.

1) Lack of socialization and capacity building of the Indo-TLAS at the local level. This can be seen in figure 12 that the different interpretations of the Indo-TLAS definition have emerged among the local farmers.
2) Lack of coordination between national, provincial, and district governments. This can be seen in table 8 that the FFG board members had more of an understanding of the Indo-TLAS objectives than the local authorities.
3) Lack of awareness of the local people against the Indo-TLAS system. This can be seen in chapter 3 that only one of the local farmers could mention the Indo-TLAS regulation.
4) Lack of a number of LP&VI throughout Indonesia that has been accredited by the KAN (Table 10).
5) The verification cost would be charged on the MoF budget only for the first period. Meanwhile, the next verification cost would be charged on the local people. However, its cost[17] was not affordable for the local people.

5.1.2 Combination of top-down and bottom-up approaches in the Indo-TLAS measures

The policy measures of Indo-TLAS in Blora, Gunungkidul, and Wonosobo that facilitated by ARuPA and SHOREA were using the combination of top-down and bottom-up approaches. Top-down approach can be seen when ARuPA and SHOREA proposed the sites to be funded by the MFP. Furthermore, this approach was also used by ARuPA and SHOREA in stage of preparation and facilitation. This can be seen when ARuPA and SHOREA provided a set of planned activities and directed the community association/cooperative to prepare for the timber verification. Instead of using the method of command and instruction, the bottom-up approach was also applied in the Indo-TLAS measures. For example, there was a recommendation of potential villages from the local authorities in terms of village identification process, especially in GJM and APHRW. Another example can be also seen in the establishment of the community association when the local people appointed the board members by them self. Additionally, the local people have actively participated in fulfilling the Indo-TLAS requirements.

As a result of the approaches combination, the modern and traditional knowledge were complementing each other in the Indo-TLAS measures. First, this can be found when the coordination of the Indo-TLAS has performed both formal meeting (modern knowledge) and informal meeting (traditional knowledge). Second, the Indo-TLAS socialization was also combining both of this knowledge. This can be seen at the time when the formal socialization of the Indo-TLAS has been conducted at the district level. Meanwhile at the village level the communities have utilized the local network to deliver the Indo-TLAS such as a social gathering, door to door, or even word of mouth. Third, the presence of local forest management has interacted with the modern one in the processes of the village identification and the association establishment. For example, on the one hand, the local people used traditional value in the election of the board members in which the elders are prioritized to be appointed as the board members. On the other hand, ARuPA and SHOREA introduced formal managements such as the making of the notarial deed of association's establishment and the drafting of the association's legal statute. Lastly, this combination can be found in the fulfilment process of the Indo-TLAS requirements. For example, local wisdom in acknowledging the forest boundary has supported the community forest mapping. As the result, the map of the community forest showed clear boundary between the forest with other forests or outside of forest area.

[17] For example: the total of exactly verification cost in Blora, Gunungkidul, and Wonosobo was $ 7833.33 (1$=Rp 9,000)

These local knowledge, management, and wisdom showed the main characteristics of the community forestry. These characteristics have already been described by Glimour & Fisher (1998) cited in Hinrichs et al., (2008). They stated that the local people as a main actor who managed the forest and they have a legal right to participate in different level. Furthermore, the implementation of community forestry has occurred in the Indo-TLAS measures. It can be seen when the state and non-state actors has changed and recognized that the local people who live within and surrounding the forests has better knowledge in managing their forest (down to Earth, 2002, cited in Hinrichs et al., 2008). Moreover, the combination of top-down and bottom-up approaches showed that the concept of community forestry was useful to implement the forest policy such as the Indo-TLAS. As well as the statement of Poffenberger (2006) that the measures of forest regulations shall clearly notice and mention the community's right and management; and encourage the local authorities' role over the community forest management. Therefore, the Indo-TLAS measures in the community forest seem to be unattainable without the combination and bottom-up approaches and the recognition of the local knowledge.

Although these approaches combination aimed to avoid the dependence of the local communities on ARuPA and SHOREA facilitation, the results showed that the local people still depended on them. In every stage of the Indo-TLAS measures, the local people have always been facilitated and assisted by ARuPA and SHOREA. This dependency was not only emerged in the stages of preparation and facilitation, but also in the stages of verification and surveillance. On the one hand, the Indo-TLAS measures have been orderly implemented and the modern management has been introduced. On the other hand, the local people have had less initiative during the Indo-TLAS measures. They have to wait for the command and instruction from ARuPA and SHOREA; afterwards they could actively react and did further measurements at the local level. This is why, the balance of top-down and bottom-up approaches must be maintained.

A few supporting and inhibiting factors were found during the Indo-TLAS measures in the community forest. This is accordance with the statement of Pagdee et al. (2006) that there were nine successful factors, which support the implementation of the forest policy in the community forest. However, not all of these factors have a significant impact to achieve the successful of the policy implementation in the community forest. Therefore, only five significant factors that will be discussed in this chapter as follows:

1) Property right regime; this factor was one of the most important of the Indo-TLAS requirement. If the forest land ownership was legal, the illegal logging would not occur and the timber origin would be clear. As we have seen in chapter 3, this factor was very significant in succeeding the Indo-TLAS measures in the community forest where the research was carried out. The local people would never be able to fulfil the Indo-TLAS standard if the forest ownership and the forest boundaries were not clear. However, not all of the local communities had the legal document of their forest ownership. This might occur because of the changes of forest ownership status. The forest ownership has changed due to the transaction of buy and sell of the forest land, or the land inheritance from parents to their children. During this ownership change, most of them did not change the name of new ownership in the ownership legal document. Fortunately, there was always back up data in the village office that recorded those changes of forest ownership. Additionally, the clear boundaries both of artificial and natural was also helpful to distinguish the forest ownership from one to another. Another positive fact is that there was no tenure conflict between state and non-state forests in the study areas, which is commonly found in the community forest on Java Island. Unlike in outside of Java, it has a lot of tenure conflicts such as the claim of the state forest which could be conducted either by personal, communities, or even by the legal concessionaires. Therefore, this property right regime would become the toughest

challenge for the Indo-TLAS measures outside of Java Island because of the Indo-TLAS could not be applied the forest where any tenure conflict occurs.

2) Institution; the local institution should be established if the local communities would like to apply for the Indo-TLAS measures collectively. The local communities have to be joined in the association/cooperative which is closely related to the characteristics of the institution. As described in chapter 3, status of the elders as the board member of community association/cooperative has generated the strong leadership and high motivation to implement the Indo-TLAS. Consequently, every formal meeting or activity could take place because of the community member respect to the elders/board member. On the one hand, this respect became positive factor because it will ensure the continuity of community association/cooperative. On the other hand, it might cause a lack of professionalism of the board members because at the same time they also became the board members in other social organizations. Most of the time, the task determination of the board members did not consider "the right man on the right place". Furthermore, there was also a lack of administrative experience in terms of self-governing resource management. This showed that the local communities were intimately associated with traditional management. However, the emergence of several forest formal managements showed that the local people were shifting from the informal management into the formal one. As evidence, the local communities who could not fulfil the Indo-TLAS requirements were excluded from the community association/cooperative unless they can fulfil its requirements. Unfortunately, the enforcement of community's written rules has not effective yet. The formal rules remain only on the paper and the local people never paid attention to it. Additionally, there was no sanction for people who did not obey the formal rules. Likewise, there was a lack of monitoring method to assess whether the institutional framework remains applicable to the community.

3) Incentive & interest; these factors were highly significant as a "spirit foundation" for the local people when they decided to implement the Indo-TLAS measures. As we have seen in chapter 3, the local people who joined the community association/cooperative had the same incentive and interest factors to implement the Indo-TLAS. First, in the stage of preparation and facilitation, they became more acknowledge the high valuable of their community forest resources after they performed the community forest inventory and mapping. Second, after the Indo-TLAS socialization, they had a common expectation that benefits, especially the premium price of legal timber, will be added to the local people when participating in the implementation of this forest policy. Third, they had a common assumption that as long as they did not spend much money on the Indo-TLAS measures and institutional change then they would not experience the losses. Fourth, the local dependency on their forest as a basic source of community needs led them to be involved in the community forest policy including the Indo-TLAS. Lastly, these common interests have encouraged the local people to establish the group and conduct community forest management. Based on the above explanation, it is clear that the same incentive and interest of the local people should be sought and created before implementing the forest policy in the community forest.

4) Financial & human resource supports; these factors were truly significant in succeeding the Indo-TLAS measures. As described in chapter 3, the financial aid to implement the Indo-TLAS came from an international institution namely MFP II. Meanwhile, the human resource support came from NGOs namely ARuPA and SHOREA. On the one hand, these supports have relieved the local communities in terms of the Indo-TLAS financing and administrative matters. The local people also gained new knowledge, skill, experience, and external relation in terms of the Indo-TLAS. On the other hand, the local community might became dependent to the external assistances, and they would not be able to implement the Indo-TLAS by them

self. It can be seen when ARuPA always assisted them to deal with the administrative matters. It can also be seen when they were not able to pay both of the verification and surveillance cost. The trade-off between these external supports and the independent of local people must be considered as the dilemma of the Indo-TLAS measures in the community forest. Aside from this dilemma, ARuPA and SHOREA as NGOs should take a role as an independent monitoring instead of a facilitator in reference to the Indo-TLAS scheme. This might occur because of the previous experience of NGOs in facilitating the local communities to implement the forest policy was more successful rather than the local authorities. Additionally, the local authorities had a lack of capacity to implement the new forest policy such as the Indo-TLAS. They were also not ready to assist the local people due to the limitation of human and financial resources. For example, the number of forestry extension workers was limited compared to the community forest area that should be facilitated by them.

5) Level of participation; the Indo-TLAS was impossible to be implemented if the local people did not participate in it. The result showed that there were different levels of the people participation in the Indo-TLAS measures. These levels could be categorized into active and passive participations. The local people who joined the community association/cooperative and actively involved in every phase of the Indo-TLAS measures could be categorized as an active participant. Meanwhile, the passive participant is the people who also joined the community association/cooperative, but they are not actively involved in the Indo-TLAS measures. When the majority of the local people have participated in the Indo-TLAS measures, the program seems to become more successful. It can be seen when the local people participated both actively and passively, then they have successfully obtained the certificate of timber legality verification with a preparation period of no more than six months.

5.1.3 Slightly effects of the Indo-TLAS on the community's behaviour

The Indo-TLAS measures have had small effects on the community's behaviour in terms of forest management. It can be seen when the Indo-TLAS has only had effect on the forest management and administration, and the external relation of the community association/cooperative. Meanwhile, it has had no effect yet against the timber harvesting and trading in the community forest. This circumstance is in accordance with the community forest features that the local people perform the traditional practices to use and harvest forest products (Pagdee et al., 2006). The conservative logging in Indonesia is called "*tebang butuh*". The tree will be cut down if the local people have unusual needs (Awang et al., 2002; Darusman & Hardjanto, 2006). On the one hand, even though the traditional harvesting and trading were used, the sustainability of community forest has always been well maintained, for example, they directly re-planted the trees after its harvesting. On the other hand, the absence of the Indo-TLAS effect against timber harvesting and trading was a crucial issue because the "main soul" of the Indo-TLAS is to ensure the legality of harvested and traded timber.

In response to the existing traditional logging, different improvement solutions shall be offered to overcome this issue. It needs an innovative solution to reconcile between the economic-driven logging and selective logging. Actually, the innovative solution has been proposed either by NGOs or national/local governments, which was the soft loan for moratorium logging. As described in chapter 4, this loan was aimed to fulfil the unusual needs of local people so the logging of the young trees can be postponed. However, this solution requires a lot of funds and administrative supporting system to deal with the amount of unusual needs of the local people. It will become ambitious solution because the huge number of local people in the community forest throughout Indonesia can be up to millions. It will also need the cooperation between the MoF and related ministries, such as Ministry of Cooperatives and Small/Medium Enterprises, and Ministry of Finance. Another solution to deal

with the unusual needs is might be the provision of alternative livelihoods such as livestock, agriculture farming, and fruit plantation. By providing these alternative livelihoods, the local people are expected to perform the selective logging instead of the economic-driven logging.

Instead of solutions against the traditional logging, the solutions are also required to shift the traditional trading into the modern one. According to the Indo-TLAS standard, when the local people sell their legal timbers they have to make and keep the timber transportation documents such as SKAU/invoice. However, they never kept the legal documents of timber transportation since they have handed over it to the local trader. Therefore, the use enforcement of these documents is not enough to be conducted mainly by the local trader and the local people. The strong encouragement shall come from the small/medium/big timber industries that used the legal community timber. Once the industries require the legal documents of timber transportation, the local trader and the local people will automatically use these documents. However, this practice will need enormous efforts to penetrate the timber industries in demanding the timber transportation documents against the local trader and the local people. Another solution that might possible to be applied is establishing the timber business management unit such as small-scale sawmill industry. Besides to encourage the use of timber transportation documents, this unit will also enhance the timber price by processing the raw timber into sawn timber. Nevertheless, this solution will need the external supports such as the training of timber processing, venture capital, and technical assistant to get the industry's legal permit.

5.1.4 High institutional and low target-group effectiveness of the Indo-TLAS

To evaluate the Indo-TLAS in the early age, only two concepts of effectiveness that possible to be assessed namely institutional and target-group effectiveness. As described in chapter 4, the institutional effectiveness of the Indo-TLAS in the community forest is high. It can be seen when almost all of the Indo-TLAS measures have conformed to its robust policy design. This conformity is also accordance with the statement of Gysen et al. (2002, p.5), "institutional effectiveness is the extent to which the output of the policy (policy measures) matches the objectives of the policy (policy design)". Furthermore, the high institutional effectiveness might occur because of several supporting factors, both external and internal (Figure 15). The facilitation from ARuPA and SHOREA as external organizations has fully supported the Indo-TLAS policy measures so that almost of all measures matched to its policy design. Meanwhile, the presence of elders as the board member of the community association/cooperative became internal strength to implement the Indo-TLAS in the community forest. As a result, the complexity of the Indo-TLAS measures can be addressed through the combination of top-down and bottom-up approaches as well as the integration of modern and traditional knowledge.

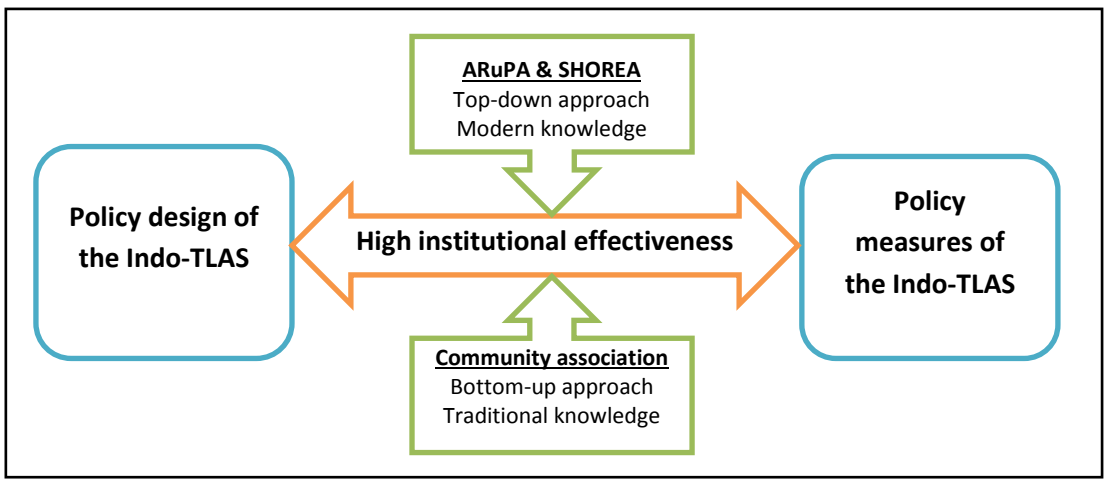

Figure 15: The high institutional effectiveness of the Indo-TLAS

As we have discussed previously, the Indo-TLAS measures have had small effects on the community's behaviour in terms of forest management. Particularly, the Indo-TLAS has had no effect yet against its main target which is timber harvesting and marketing. Therefore, the target-group effectiveness of the Indo-TLAS is low. This is also accordance with the statement of Gysen et al. (2002, p.6) that "target-group effectiveness is the degree to which the outcome, defined as the response of the target groups to the output of the policy corresponds with the policy objectives". At the time when the main objective of the Indo-TLAS is not achieved yet, the degree of target-group effectiveness thus becomes low. Furthermore, the low target-group effectiveness might occur because of several factors, both external and internal (Figure 16). Externally, there was a lack of law enforcement on the use of timber transportation documents (SKAU/invoice). This enforcement should be conducted by the local authorities and in cooperation with the local police. However, this enforcement seems unaccomplished due to the persistence of corruption, collusion, and nepotism. Consequently, the original documents of timber transportation were not required at all. Meanwhile, internally, the rules of timber harvesting and trading, which listed on the standard operating procedures of the community forest management, were not implemented in the field. Hereinafter, the economic-drive and selective logging became conflict interest between the individual and the community association.

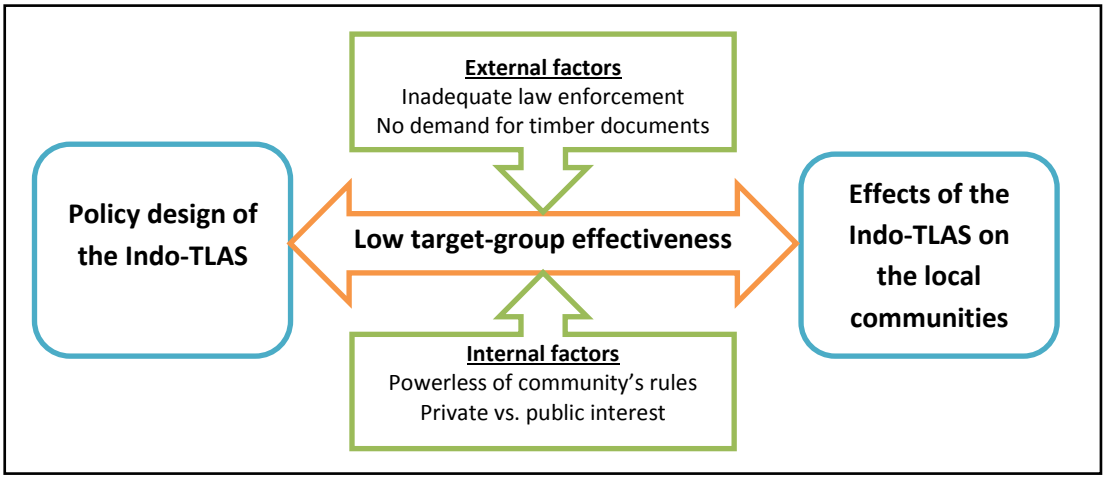

Figure 16: The low target-group effectiveness of the Indo-TLAS

In response to the low target-group effectiveness, several triggers are needed to enhance the response of the local community against timber harvesting and trading. According to Pagdee et al. (2006), the forest product technology and market influence should be introduced to the local community. First, the technological change in timber processing needs to be given to the local people so they can increase the economic value of timber products. Second, the market demands for timber products and its legal transportation documents should be increased. Third, the infrastructures establishment of legal timber marketing should be supported either by local or national governments. Lastly, instability and fluctuation of market conditions should be monitored to avoid the collapse of timber price. Nevertheless, instead of introducing the forest product technology and market influence, the law enforcement on the use of timber transportation documents should also be enacted.

5.1.5 Limited contribution of the Indo-TLAS for the local farmers

The community's perspectives on the advantages and disadvantages of the Indo-TLAS for the local farmers that have been described are respect to the institutional and target-group effectiveness. As we have seen in chapter 4, the advantages of the Indo-TLAS for the local farmers were generated

from the high institutional effectiveness. It can be seen when the active local farmers have gained new knowledge, skill, and experience related to the timber legality verification. These benefits have emerged because of the presence of ARuPA, SHOREA and their modern knowledge. Likewise, the enhancement of network and reputation of the active local farmers were also triggered by the assistance and facilitation from ARuPA and SHOREA. Nevertheless, all of these benefits would not be perceived by the local farmers if the local institution and the local participation were weak. Therefore, the combination of top-down and bottom-up approaches and the integration of modern and traditional knowledge are important to create the high institutional effectiveness, and then generate benefits for the local farmers.

Meanwhile, the Indo-TLAS disadvantages that have been perceived by the local farmers were generated from the low target-group effectiveness. It can be seen when the local farmers did not experience the different price between the verified timber and the unverified one. The weak response of the local farmers against modern timber harvesting and trading has triggered this detriment. If the local farmers perform the selective logging and the legal trading, the premium price will be perceived by them. Aside from this dilemma, the adverse impacts also arise from the presence of a high institutional effectiveness. On the one hand, it was a good indicator when the local farmers have actively participated in the Indo-TLAS measures. On the other hand, they had to put much more efforts to understand the concept of this policy. They had also lost their time for work and felt stress towards the complexity of the Indo-TLAS measures.

In reference to the objectives of the Indo-TLAS, the contributions of the Indo-TLAS for the local farmers were limited and only respect to the high institutional effectiveness. Meanwhile, many adverse impacts were caused by both the high institutional effectiveness and the low target-group effectiveness. Therefore, the social safeguards needs to be an integral part of the FLEGT-VPA to minimize possible adverse impacts (Arts et al., 2010). Ghana, the first country to ratify the FLEGT-VPA with the EU, has established the social safeguards to prevent and mitigate adverse impacts of the Ghanaian-TLAS. They have developed the social safeguard as early as possible during the FLEGT-VPA process through a multi-stakeholder workshop. These social safeguards consist of six different types namely “legal security for forest users, soft law enforcement, benefit-sharing or compensation, capacity building, alternative livelihoods or employment, and expansion of the forest resource base”. Furthermore, “mechanisms to implement these social safeguards include legislation, policies and regulations; programs and projects; financial incentives; education and extension; and partnerships”. (Arts et al., 2010, p.7). Unlike in Indonesia, these social safeguards have not been established yet. This was because of the development process of the Indo-TLAS did not include input from the sceintific researches. As a result, the Indo-TLAS only focused on how to govern legal timber, reduce illegal logging, export legal timber, comply with the required documents, and achieve the balance in the supply and demand of timber. Additionally, the Indo-TLAS development did not consider the establishment of the social safeguards to prevent and mitigate any possible adverse impacts against the local people (Wiersum & Elands, 2012).

In the next future, the social safeguards needs to be established in Indonesia. The first step is conducting the scientific research to find out the possible adverse impacts of the Indo-TLAS against the local communities. Then the establishment of the social safeguards can be done through a multi-stakeholder process. Futhermore, the viable mechanisms to implement the social safeguards should be provided by the government which can refer to the social safeguards mechanisms in Ghana. However, the government of Indonesia seems unable to provide mechanisms in terms of the consistent regulations. As described in table 9, the legal bases of the Indo-TLAS have been changed frequently. In addition, the provision of financial aids, education, and extension related to the Indo-TLAS needs integral cooperation among relevant stakeholders.

5.1.6 Variety improvement suggestions of the Indo-TLAS in the community forest

Many of improvement suggestions have been explored based on policy design, policy measures, institutional effectiveness, and target-group effectiveness of the Indo-TLAS. As we have seen in chapter 4, there was extreme suggestion that refuse the implementation of the Indo-TLAS in the community forest. This extreme suggestion was triggered by the remaining debate between the community sovereignty and the international distrust on the legality of community timber. Aside from that, the main suggestion was focused on the cost reduction of verification and surveillance so the cost can be affordable by the local people. This suggestion was appear due to the inability of the local communities to pay the Indo-TLAS cost by them self. However, there was no improvement suggestion related to the standard of the Indo-TLAS because everyone thought this standard has already sufficient and suitable to be applied in the community forest. Additionally, this standard was the simplest among all of the Indo-TLAS standards for other forest types.

In chapter 4, we can also see the suggestions against the Indo-TLAS measures that aimed to improve the socialization to the local people and coordination between the MoF and the local authorities. Based on the figure 12, more efforts should be given in socialization the Indo-TLAS to the local people due to the high number of the local farmers who knew the Indo-TLAS but did not understand the Indo-TLAS concepts. Furthermore, the table 8 showed that the local authorities had less understanding on the Indo-TLAS objectives rather than the board member of community association/cooperative. Therefore, the better coordination between the MoF and the local authorities was suggested. Furthermore, the suggestions towards the institutional effectiveness have emerged due to a lack of professional human resources in the community association/cooperative. Lastly, the suggestions towards the target-group effectiveness are triggered by the unwillingness of the local farmers to shift from the traditional logging and trading into the modern ones.

5.1.7 Conclusion

According to the overall discussion, the Indo-TLAS policy design was robust due to its representativeness, transparency, and credibility. However, it became a “paper tiger” if it is implemented in the community forest throughout Indonesia. Furthermore, the Indo-TLAS measures matched with its policy design due to the combination of top-down and bottom-up approaches and the integration of modern and traditional knowledge. Additionally, the match between the Indo-TLAS and its policy design has been also supported by several successful factors of community forest management. These were clear property right, strong local institution, common interest & incentive, external financial and human resource supports, and different level of participation. As a result, the high institutional effectiveness has emerged. Moreover, the Indo-TLAS only affected the forest management and administration, and the external relation; but it has had no effect yet against timber harvesting and trading. Consequently, the target-group effectiveness was low. There were several external and internal factors that lead to the low target-group effectiveness. The external factors were inadequate law enforcement and no demand of the SKAU/invoice. Meanwhile, the internal factors were the powerless of community’s rules and the conflict between public and private interest of the local people.

The high institutional effectiveness generated some advantages for the local farmers namely the improvement of knowledge, skill, and experience and the enhancement of network and reputation. However, it also generated some disadvantages for the local farmers namely their huge efforts, time, and stress feeling. Hereinafter, the low target-group effectiveness led to the unavailability of premium price of the legal community timber. Hence, the most valuable suggestions for improving the policy design and measures of the Indo-TLAS were making the costs for verification and surveillance more affordable, improving the local implementation through better coordination between the MoF and local authorities, and investing more efforts in socializing the Indo-TLAS to the

local communities. Lastly, forest community associations should improve the quality of their human resources and local people should be willing to shift from traditional logging and trading practices into modern ones.

Since the implementation of the Indo-TLAS did not show any significant differences in the study areas, the results of this research could be relevant for all the community forest in Java Island. Even though the local practice of the Indo-TLAS would not completely similar among the community forests throughout Java Island, but it might generate the similar effectiveness, particularly the high institutional effectiveness and the low target-group effectiveness. The similar high institutional effectiveness has been triggered by the similar characteristic of the local communities in terms of the presence of elders in every social organization, including in the forest community association. Meanwhile, the current traditional timber harvesting and marketing was unlikely to shift into the modern ones, so the low target-group effectiveness might be occur in others community forest in Java Island. The current traditional logging and trading remain unchanged due to the local people surrounding the forest did not have many choices to deal with the unusual needs. Nevertheless, the Indo-TLAS measures in the community forest outside of Java Island might be diverse due to the different complexity of the community forest management. For instance, the high number and complexity of tenure conflict exist in almost all of the community forests outside of Java. Finally, the figure 17 presents the results of RIPI evaluation of the implementation of the Indo-TLAS in the community forest which could also relevant for all of the community forests in Java Island.

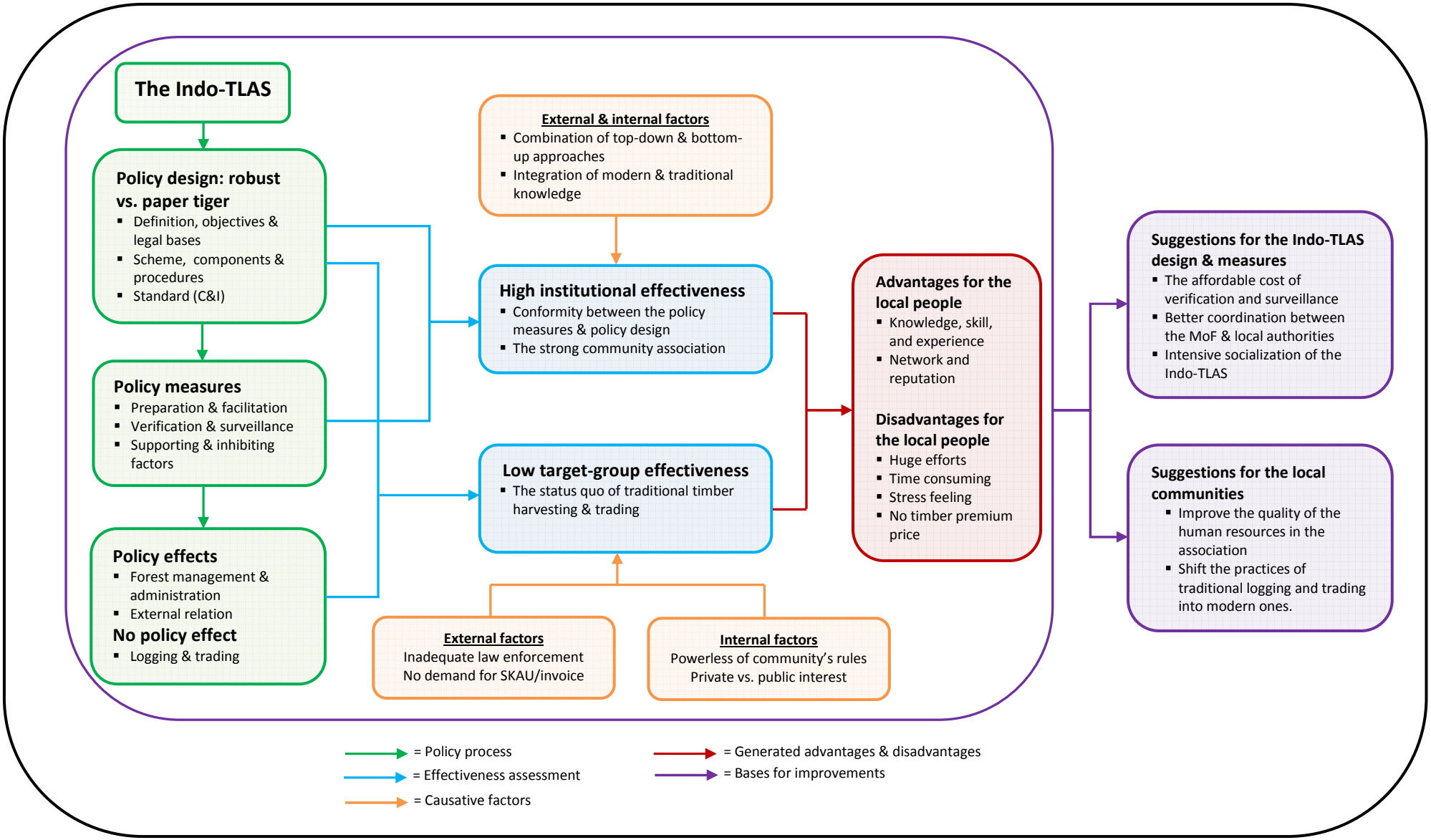

Figure 17: The results of RIPI evaluation of the implementation of the Indo-TLAS in the community forest

5.2 Reflection on theoretical approach

The concept of forest hybrid governance, timber legality verification, community forest management, and environmental policy evaluation were conceptualized as a set of theoretical approaches. These theoretical approaches were useful for this study which is focused on the evaluation of the Indo-TLAS implementation in the community forest. First, the concept of forest hybrid governance gives me an insight of the development of timber legality verification in the global forest regime. I found out that the timber legality verification system in Indonesia, which is called the Indo-TLAS, are developed by the coalition between state and non-state actors. Second, the concept of environmental policy allows this research to perform the RIPI evaluation since the Indo-TLAS has recently been implemented in 2009. By using the modified EEA policy evaluation framework, I found out that not all of the concepts of effectiveness can be used to perform the RIPI evaluation. Only two concepts of institutional and target-group effectiveness are possible to be assessed.

Furthermore, these two concepts of the effectiveness assisted me to build the research framework before going for the fieldwork. Then, the research framework assisted me to find out the whole picture on how to evaluate the institutional and target-group effectiveness of the Indo-TLAS implementation. I found out that before we evaluate those concepts, firstly we have to find out what are the policy design, the policy measures, and the policy effects on the communities behaviour. The biggest challenge for me is measuring the change of communities behaviour that affected by the Indo-TLAS. The effects against local behaviour might not occur yet due to the young age of the Indo-TLAS implementation. This might affects the validity of the research results. Therefore, to measure those outcomes the longitudinal research is strongly recommended due to the measurement of behavioural change is not enough to be conducted only in once or twice studies (Gysen et al., 2002).

Third, the concept of the timber legality verification assisted me to analyse the policy design of the Indo-TLAS whether it is robust or not. I found out that the policy design of the Indo-TLAS matched with the main characteristics of timber legality verification that have been classified by Cashore & Stone (2012). These characteristics are classified into the role of government, policy scope, assurance, role of markets, and economic incentives. Lastly, the concept of community forest management increases my understanding on how the local people manage their forest and implement the Indo-TLAS policy in the field. Subsequently, the successful factors of community forest management assisted me to explain why and how several related factors can be a support or a hindrance against the Indo-TLAS implementation in the community forest. I found out that the Indo-TLAS measures have been significantly influenced by those successful factors, particularly the property right regime, institution, incentive & intensive, financial & human resource support, and level of participation.

Regarding to the modified EEA policy evaluation framework, this research could not cover the elements that could be important for a policy evaluation, such as impact and societal effectiveness of the Indo-TLAS in the community forest. This limitation is because of this research is conducted in the early age of the Indo-TLAS policy. Meanwhile, the impact effectiveness is often only visible in the long term, such as the state of the environment (Gysen et al., 2002). Consequently, it is also not easy to measure the societal effectiveness because this effectiveness will answer whether or not the policy impacts meets the societal needs (Gysen et al., 2002). It means that the societal effectiveness can also be assessed after the policy has been implemented in the long term. On the whole, it is also difficult to conclude whether the Indo-TLAS policy in the community forest is effective or not because this research only analysed the concept of institutional and target-group effectiveness. Moreover, there is no framework to assess the effectiveness of forest verification. Unlike in the forest certification, the presence of Young's classification as a comprehensive evaluation framework has been used to assess the effectiveness of forest certification (Tikina & Innes, 2008). Therefore, the

future research is needed to evaluate the Indo-TLAS implementation in the mid and long term by using a comprehensive evaluation framework.

Eventually, the RIPI evaluation is always facing a lot of problems because only some effects have occurred, and information on them is incomplete (Kautto & Similä, 2005). In reference to the opinion of Kautto & Similä (2005), that the retrospective RIPI evaluation is possible to be conducted, and advantages will be more perceived if the inventories theories are used in these evaluations. Kautto & Similä (2005, p.55) argued "when evidence on final outcomes is largely unavailable, an intervention theory is a useful tool to overcome information problems. By using intervention theories, it is possible to identify observable prerequisites that precede intended, but not yet occurred, outcomes". However, this theory is also having several limitations such as there is no information at all if the outputs have not been produced or outcomes have not occurred. Then, the possibility of theory failure should also be considered in doing these evaluations (Rossi et al., 1999, cited in Kautto & Similä, 2005).

5.3 Reflection on research methodology

This research adopted a grounded theory in order to enhance understanding and gain insight of the Indo-TLAS implementation and its advantages or disadvantages on the local farmers in the community forest. This approach allows the emergence of the theory from the field by observing the local practices, understanding the dynamic of people interactions and their roles to overcome the problems, and then finding relationships among them. This sub-chapter reflects on the field observation and in-depth interview as methods of data collection, and also on the data analysis methods in this research.

Role of the key persons

To gain access to the research area, the key persons who have a relation or network connection with the study area need to be approached. Therefore, I did the internship in ARuPA as NGO who facilitated the community forest in Blora, Gunungkidul, and Wonosobo in which the research was conducted. ARuPA facilitated the local communities to obtain the Indo-TLAS certificate so I can also access a lot of data related to the Indo-TLAS implementation from them. Then, ARuPA gave me one key person from each research area. I have visited the study areas in turn and stay there for several days to perform the field observation and in-depth interview. During the research, I stayed in the key person's house and he also escorts me to every place that I have to visit. Besides that, he introduced me to the head of the community association/cooperative and to the local authorities. Hence, the role of the key person was very significant in performing this research. Without the assistance of the key person, I would not be able to deal with the situation of the research area. Especially in Blora, I have to visit 8 villages member of GJM which have difficulties of geographic accessibility.

Technical constraints of in-depth interview

There were several technical constraints during the in-depth interview with the local farmers. First, the informal introduction has always been conducted because I was a newcomer in their community environment. Besides that, most of the time the interview was conducted in the respondent's house. However, this informal conversation became widened and sometimes caused the interview time became more longer than supposed to be. Second, some interviews were re-scheduled due to the heavy rain. This was because I did not able to rent the car for mobilization due to the limited research fund. The key person and I therefore only used the motorcycle to reach the respondent's house or the forest if they work in their own forest. Consequently, if the heavy rain came then there was no choice unless re-schedule the interview. This is why, it would be better if the research is conducted in the dry season instead of in the rainy season.

Thirdly, considering the data collection in grounded theory, it shall be continued until data saturation has been reached. Consequently, the subjectivity of the researcher on data saturation cannot be avoided. At the same time, the number of respondents will be determined by the point of view of the researcher (Strauss & Corbin, 1990, 1998). In this study, I found out that it is not easy to determine when the data saturation has been reached. The grounded data might be very numerous and abundant, due to the complexity of people's interaction and opinion. Therefore, the use of snowball sampling shall be balanced with the limits of available time and money. As a result, only 55 respondents that have been interviewed including the key informants and the local farmers. Fourth, there was another constraint in the interview towards the national and local governments. The national/local officials that I interviewed are only as a head of sub-directory or head of the division. They were not having a full authority towards forest policy, so during the interview some of them did not brave to express the contrary opinion. They preferred to express the contrary opinion as their own statement instead of as a government official statement. Therefore, I used the initial for all respondents as well as to keep their identity and confidential.

Extra time for coding procedures

During the data analysis, I used an extra time to perform the coding procedures and it implies on the writing time of the thesis report. I spend two months only for making verbatim and translating the transcripts while coding was conducted. I did manually the processing of identification a list of codes from each interview transcript, whereas I have 55 transcripts in Bahasa Indonesia. Then, I created manually the sub-categories and categories based on the relations between existing codes. Lastly, I also selected manually the main categories to formulate the conceptual model and reconnect data to answer the research questions. I found out that if we perform the open, axial, and selective coding manually, without the assistance of the software system, it will need an extra time to deal with data processing. We will experience it especially if we have a lot of respondents and interview transcripts. Therefore, I strongly recommend for using the software systems such as ATLAS or NUDIST to assist the researcher in processing their data. This is in accordance with the statement of Straus & Corbin (1998, p.276), "the strength of software systems comes from being able to help with all kinds of ordering, structuring, retrieving, and visualizing tasks". So, these programs allow us to organize our transcript data in preparation for analysis. However, Straus & Corbin (1998, p.276) also stated the weakness of these computer programs that "they are absolutely incapable to comprehend the meaning of words or sentences". This means that these programs cannot do analysis for us. These are only tools for indexing the data.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

This research aimed to evaluate the Indo-TLAS implementation in the community forest in Blora, Gunungkidul, and Wonosobo as the first-three verified community forest on Java Island, Indonesia. Firstly, this research describes the policy design and measures of the Indo-TLAS in the community forest with respect to its scheme and objectives. Secondly, this research also describes the effects of the Indo-TLAS on the local communities' behaviour in terms of forest management. Thirdly, the institutional effectiveness was assessed by analysing the extent to which the policy measures matches to its policy design. The target-group effectiveness was also assessed by analysing the degree of the response of the local communities against the Indo-TLAS measures. Fourthly, this research presents the communities' perspectives on the advantages and disadvantages of the Indo-TLAS for the local farmers with respect to the institutional and target-group effectiveness. Lastly, the suggested improvements of the Indo-TLAS were explored in this research.

To perform this research, the field observation, formal discussion, in-depth interview, and literature reviews were used as methods of data collection. The data is mostly gathered based on the experience and knowledge of local people and related stakeholders in implementing the Indo-TLAS in the community forest. Furthermore, the research findings can be useful for the government, primarily the MoF, who needs suggested improvements for the further implementation of the Indo-TLAS. Besides that, the outcomes of this study might be of interest to other researchers who are working on the issues of forest verification, particular in TLAS. This research is also expected to support the aims of relevant stakeholders who are against illegal logging and trying to pursue sustainable forest management.

Policy design and measures of the Indo-TLAS in the community forest

This study found out that the new forest verification system in Indonesia, which is called the Indo-TLAS, has shifted from the bureaucratic state into the hybrid governance. This was because of the coalition between state and non-state actors have been taking place on the policy-making process of the Indo-TLAS. Due to the ratification of the FLEGT-VPA with the EU, the policy design of the Indo-TLAS in the community forest consists of several elements. These are definition of the legal timber, a set of legal bases, system to monitor the timber supply chains, independent audit, verifying compliance, and issuance of FLEGT license. This study found out that the policy design of the Indo-TLAS was robust due to its representativeness, transparency, and credibility. However, this robust policy design became a "paper tiger" while it was being implemented in the community forest throughout Indonesia. Furthermore, the policy measures of the Indo-TLAS in Blora, Gunungkidul, and Wonosobo consist of preparation, facilitation, verification, and surveillance. These measures were facilitated by ARuPA and SHOREA, environmental NGOs, and funded by MFP II. Moreover, this study found out that the role of the community association/cooperative in implementing the Indo-TLAS was significant. However, they could not fully independent because they always need assistance related to the administrative matters and formal management.

Effects and effectiveness of the Indo-TLAS in the community forest

This study discovered out that the implementation of the Indo-TLAS in Blora, Gunungkidul, and Wonosobo only affected the local behaviour in terms of forest management and administration, and their relation with the external organizations. Meanwhile, it has had no effect yet towards the local behaviour of timber harvesting and marketing. This was because of the traditional logging and trading still strongly rooted within the local community. This traditional practices are also one of the features of community forest management (Pagdee et al., 2006). However, the absence of the Indo-

TLAS effect against timber harvesting and trading was an important issue because the "*main soul*" of the Indo-TLAS is to encourage the local people in performing the selective logging and legal trading.

Although it is too early to judge the effectiveness of the Indo-TLAS in the community forest, this study found out that the institutional effectiveness was high, and the target-group effectiveness was low. The high institutional effectiveness can be seen when the policy measures of the Indo-TLAS in Blora, Gunungkidul, and Wonosobo matched with its policy design. It was triggered by the combination of top-down and bottom-up approaches and the integration of modern and traditional knowledge. Additionally, it has also been supported by several successful factors of community forest management. These are clear property right, strong local institution, common interest & incentive, external financial and human resource supports, and different level of participation. Furthermore, the low target-group effectiveness can be seen when the Indo-TLAS measures in Blora, Gunungkidul, and Wonosobo did not affect the timber harvesting and marketing. It was caused by several external and internal factors. The external factors were inadequate law enforcement and no demand for the SKAU/invoice. Meanwhile, the internal factors were the powerless of the community's rules and the conflict between public and private interest within the local people.

Contribution and suggested improvements of the Indo-TLAS in the community forest

Even though there were no advantages of the Indo-TLAS for the passive local farmers, several advantages for the active ones have been recognized. The high institutional effectiveness has generated some advantages for the active local farmers namely the improvement of knowledge, skill, and experience and the enhancement of network and reputation. However, the high institutional effectiveness has also generated some disadvantages for the active local farmers. They spend much more efforts, time, and stress feeling to implement the Indo-TLAS. Hereinafter, the low target-group effectiveness led to the unavailability of premium price of the legal community timber. Therefore, this study found out that the contributions of the Indo-TLAS for the active local farmers are limited and only respected to the high institutional effectiveness. Meanwhile, many adverse impacts are caused by both the high institutional effectiveness and the low target-group effectiveness. Hence, the most valuable suggestions for improving the policy design and measures of the Indo-TLAS were making the costs for verification and surveillance more affordable, improving the local implementation through better coordination between the MoF and local authorities, and investing more efforts in socializing the Indo-TLAS to the local communities. Lastly, forest community associations should improve the quality of their human resources and local people should be willing to shift from traditional logging and trading practices into the modern ones.

To sum up, the implementation of the Indo-TLAS in the community forest in Blora, Gunungkidul, and Wonosobo has generated the high institutional effectiveness and the low weak target-group effectiveness. Consequently, the local farmers have experienced both of advantages and disadvantages of the Indo-TLAS. Hence, the most valuable improvements were suggested against the policy design, policy measures, and the community forest management. Based on these results, the government or the other researchers could learn that the combination of top-down and bottom-up approaches and the integration of traditional and modern knowledge might lead to the high institutional effectiveness of the Indo-TLAS. Meanwhile, different efforts shall be conducted to prevent the low target-group effectiveness such as enforcing the existing laws, encouraging the use of the SKAU/invoice, and strengthening the community's rules. In addition, the soft loan of moratorium logging and provision of local livelihoods are needed to shift traditional logging practice into the modern one. Lastly, to prevent and mitigate any possible adverse impacts of the Indo-TLAS in the community forest the social safeguards need to be established. The establishment of these social safeguards needs input from the scientific research, viable mechanisms for its implementation, and multi-stakeholders supports.

Since the implementation of the Indo-TLAS did not show any significant differences in the study areas, the results of this research could be relevant for all the community forest in Java Island. Even though the local practice of the Indo-TLAS would not completely similar among the community forests throughout Java Island, but it might generate the similar effectiveness, particularly the high institutional effectiveness and the low target-group effectiveness. The similar high institutional effectiveness has been triggered by the similar characteristic of the local communities in terms of the presence of elders in every social organization, including in the forest community association. Meanwhile, the current traditional timber harvesting and marketing was unlikely to shift into the modern ones, so the low target-group effectiveness might be occur in others community forest in Java Island. The current traditional logging and trading remain unchanged due to the local people surrounding the forest did not have many choices to deal with the unusual needs. Nevertheless, the Indo-TLAS measures in the community forest outside of Java Island might be diverse due to the different complexity of the community forest management. For instance, the high number and complexity of tenure conflict exist in almost all of the community forests outside of Java.

At this moment, it is too early to make a full judgement on the policy effectiveness of the Indo-TLAS in the community forest. Moreover, this research did not cover the elements that could be relevant for a policy evaluation, such as impact and societal effectiveness. However, the low target-group effectiveness is unlikely to turn out into the higher one due to the status quo of traditional logging and trading. Therefore, the evaluation of the implementation of the Indo-TLAS in the mid and long term seems unuseful. The current expectation is that this policy would not be effective to be implemented in the community forest both in Java and outside of Java. This policy would never be success considering that its implementation has to deal with million people who have the forest, unaffordable verification cost, and complexity of its policy design.

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APPENDICES

Appendix 1: Interview Guide

"The Indonesian Timber Legality Assurance System (Indo-TLAS) in the Community Forest: An Evaluation of Mandatory Timber Verification and Local Practice"

Part 1: Introduction

I would like to say thank you for your time to be participated as the respondent in this research. My name is Depi Susilawati and this research was conducted to fulfil the requirements of a Master of Environmental Sciences at Wageningen University and Research Centre, Netherlands.

I want to talk to you about your experiences and knowledge related to the implementation of the Indo-TLAS in the community forest and its effects on local behaviour. Furthermore, I will assess the community perspectives on the advantages and disadvantages of the Indo-TLAS and explore the suggested improvements. The research areas are the first-three certified community forests under the Indo-TLAS scheme on Java Islands i.e. Wonosobo, Blora and Gunungkidul districts.

The interview will take between half an hour and two hours. I will record the interview to assure precision, so please speak loudly and clearly. I will also take some notes during this conversation. All answers and your identity are confidential.

Respondent Identity

Name	
Age	
Address	
Telephone number	
Occupation	
Education	
Position in the FFG	
Statement of consent	I am hereby willing as a respondent in this research of the "the Indo-TLAS in the community forest: hybrid forest governance and local practice"
Signature of consent	

Part 2: Guidelines for asking open question

No.	Main concepts	Sub-main concepts
1.	Policy design of the Indo-TLAS in the community forest	▪ Background of the Indo-TLAS development ▪ Definision, purpose, and regulation of the Indo-TLAS ▪ Criteria and indicators of the the Indo-TLAS ▪ Relation between the the Indo-TLAS and timber administration policy ▪ Financial scheme and market design of certified wood ▪ Stakeholder map of the the Indo-TLAS

2.	Implementation of the the Indo-TLAS in the community forest	▪ Target and strategy to implement the the Indo-TLAS ▪ The role of involved stakeholders ▪ The supporting and inhibiting factors
3.	Effect of the the Indo-TLAS on the community behaviour	▪ Forest management and administration ▪ Production and marketing ▪ Community institution and external relation
4.	Institutional effectiveness	▪ Compatibility with the policy design ▪ The role of FFG in implementing the Indo-TLAS
5.	Target-group effectiveness	▪ Willingness to accept, pay and contribute
6.	Advantages and disadvantages of the Indo-TLAS for local communities	▪ Advantages in terms of institutional and target-group effectiveness ▪ Disadvantages in terms of institutional and target-group effectiveness
7.	Improvement suggestions of the the the Indo-TLAS in the community forest	▪ Policy design of the the Indo-TLAS ▪ Implementation of the the Indo-TLAS ▪ Institutional effectiveness of the the Indo-TLAS ▪ Target-group effectiveness of the the Indo-TLAS

Part 3: Closing

After this interview has been conducted, is there anything more you would like to add? I will analyse the data that I have received from you and others and record it in the thesis report. I will be happy to send a copy of my final thesis report to you or to your group or institution. Thank you for your time.

Appendix 2: List of Respondents

Number of Respondents	Role of Respondents	Institution	Interview Date	Location
R1	Facilitator	NGO	24 December 2012	Yogyakarta
R2	Facilitator	NGO	26 December 2012	Yogyakarta
R3	Head of Division	Dishut	4 January 2013	Blora
R4	Board member	GJM	4 January 2013	Blora
R5	Local farmer	GJM	5 January 2013	Blora
R6	Local farmer	GJM	5 January 2013	Blora
R7	Local farmer	GJM	6 January 2013	Blora
R8	Local farmer	GJM	6 January 2013	Blora
R9	Local farmer	GJM	6 January 2013	Blora
R10	Board member	GJM	6 January 2013	Blora
R11	Local farmer	GJM	6 January 2013	Blora
R12	Local farmer	GJM	7 January 2013	Blora
R13	Local farmer	GJM	7 January 2013	Blora
R14	Local farmer	GJM	7 January 2013	Blora
R15	Local farmer	GJM	7 January 2013	Blora
R16	Local farmer	GJM	7 January 2013	Blora
R17	Local farmer	GJM	7 January 2013	Blora
R18	Local farmer	GJM	8 January 2013	Blora
R19	Local farmer	GJM	8 January 2013	Blora
R20	Local farmer	GJM	8 January 2013	Blora
R21	Local farmer	GJM	8 January 2013	Blora
R22	Forestry extension worker	Dishut	8 January 2013	Blora
R23	Operational manager	Industry	10 January 2013	Yogyakarta
R24	Facilitator	NGO	10 January 2013	Yogyakarta
R25	Board member	KWML	12 January 2013	Gunungkidul
R26	Local farmer	KWML	12 January 2013	Gunungkidul
R27	Local farmer	KWML	12 January 2013	Gunungkidul
R28	Head of Division	Dishutbun	15 January 2013	Gunungkidul
R29	Local farmer	KWML	15 January 2013	Gunungkidul
R30	Local farmer	KWML	15 January 2013	Gunungkidul
R31	Local farmer	KWML	19 January 2013	Gunungkidul
R32	Board member	KMWL	19 January 2013	Gunungkidul
R33	Local farmer	KWML	19 January 2013	Gunungkidul
R34	Head of Division	Dishutbun	21 January 2013	Wonosobo
R35	Forestry Extension Worker	Dishutbun	21 January 2013	Wonosobo
R36	Local farmer	APHRW	21 January 2013	Wonosobo
R37	Board member	APHRW	21 January 2013	Wonosobo
R38	Local farmer	APHRW	22 January 2013	Wonosobo

R39	Board member	APHRW	22 January 2013	Wonosobo
R40	Local farmer	APHRW	22 January 2013	Wonosobo
R41	Local farmer	APHRW	22 January 2013	Wonosobo
R42	Local farmer	APHRW	22 January 2013	Wonosobo
R43	Local farmer	APHRW	22 January 2013	Wonosobo
R44	Head of Division	Industry	23 January 2013	Temanggung
R45	Local farmer	APHRW	23 January 2013	Wonosobo
R46	Local farmer	APHRW	23 January 2013	Wonosobo
R47	Lead Auditor	LP&VI	30 January 2013	Jakarta
R48	Head of Sub-Directory	MoF	31 January 2013	Jakarta
R49	Facilitator	MFP	31 January 2013	Jakarta
R50	Director	NGO	5 February 2013	Yogyakarta
R51	Lead Auditor	LP&VI	6 February 2013	By email
R52	Academician	Gadjah Mada University	6 February 2013	Yogyakarta
R53	Academician	Gadjah Mada University	6 February 2013	Yogyakarta
R54	Local farmer	APHRW	31 March 2013	By phone
R55	Local farmer	APHRW	2 April 2013	By phone

Appendix 3: Research Documentation in Blora, Central Java, Indonesia

	The head of GJM and the researcher in front of the secretariat office of GJM, Blora.
	The formal meeting of GJM's board members and village coordinators.
	The activities of community nursery program (KBR) of GJM, Blora.
	The community forest which registered in GJM, Blora.

Source: Courtesy of the author

Appendix 4: Research Documentation in Gunungkidul, D.I. Yogyakarta, Indonesia

	The researcher in front of the secretariat office of KWML, Gunungkidul.
	Interview with the local farmer while he was working in the community forest, Gunungkidul.
	The community forest which registered in KWML, Gunungkidul.
	The legal community timbers without V-Legal marking, Gunungkidul.

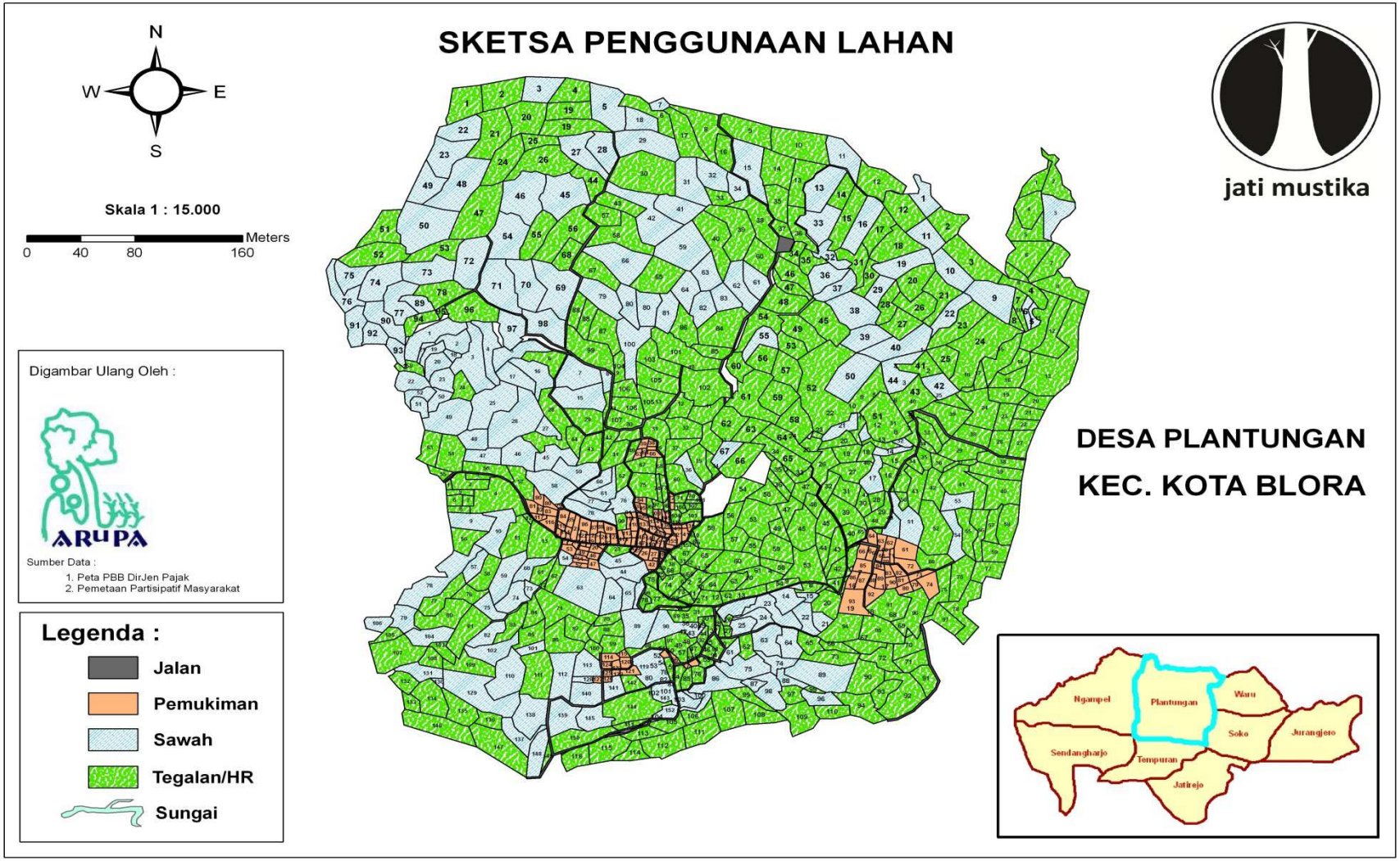
Source: Courtesy of the author

Appendix 5: Research Documentation in Wonosobo, Central Java, Indonesia

	The head of APHRW and the researcher in front of the secretariat office of APHRW, Wonosobo.
	Interview with the local farmer, Wonosobo.
	The community forest which registered in APHRW, Wonosobo.
	The legal community timbers without V-Legal marking, Wonosobo.

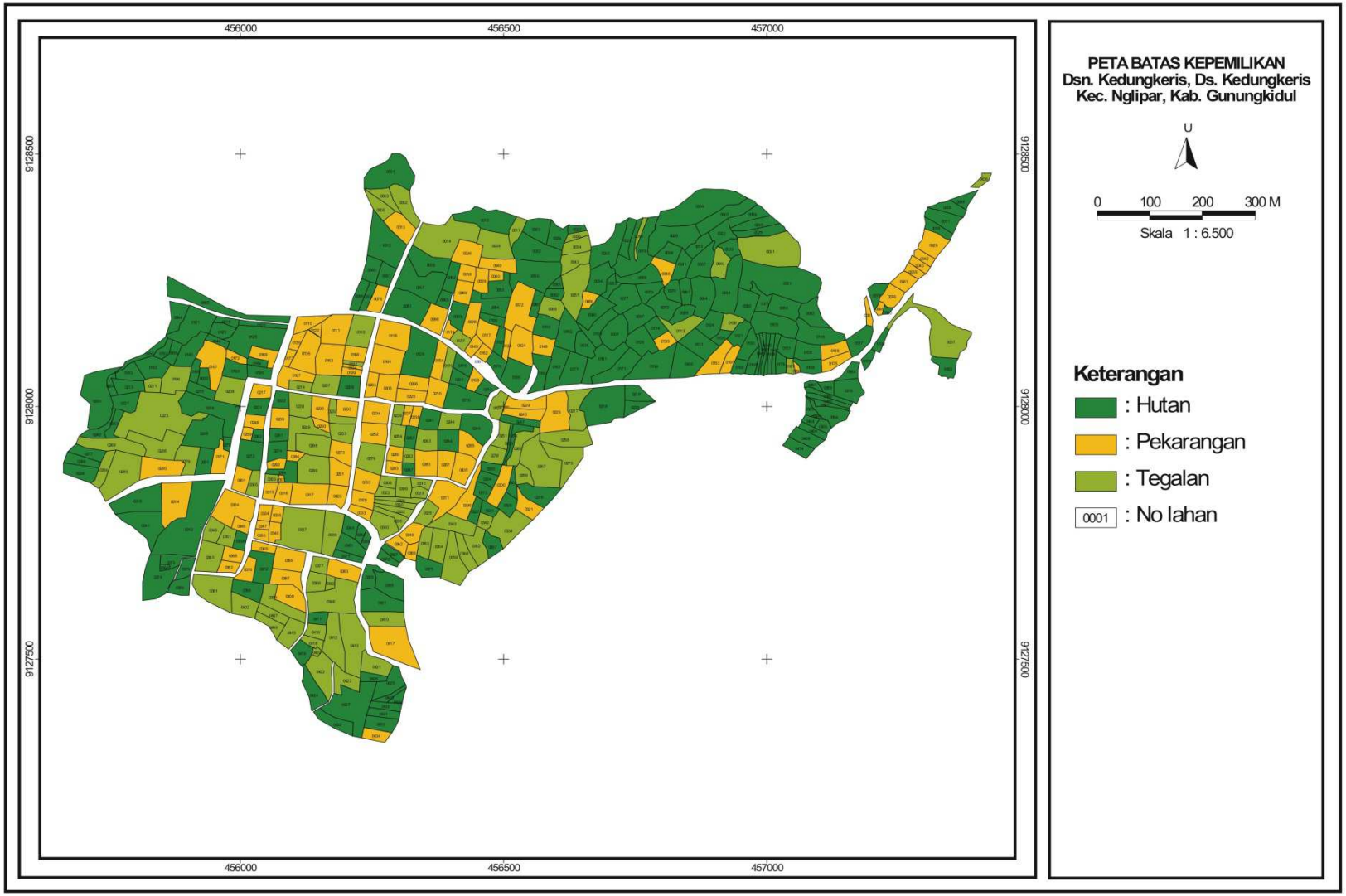
Source: Courtesy of the author

Appendix 6: The example of the community forest map in Plantungan village, Blora, Central Java, Indonesia



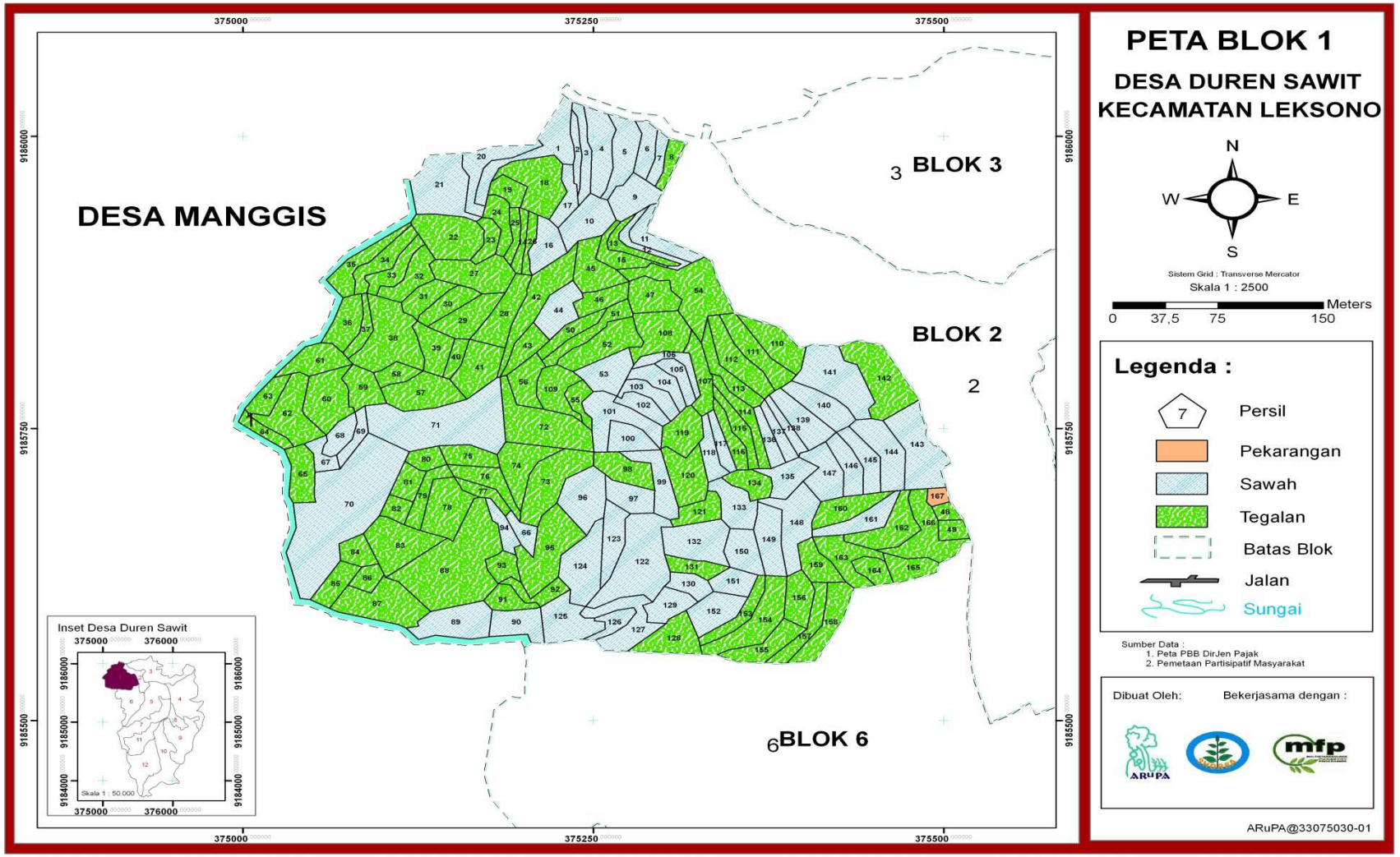
Source: The registered community forest in GJM, Blora (ARuPA, 2011)

Appendix 7: The example of the community forest map in Kedungkeris village, Gunungkidul, D.I. Yogyakarta, Indonesia



Source: The registered community forest in KWML, Gunungkidul (ARuPA, 2011)

Appendix 8: The example of the community forest map in Duren Sawit village, Wonosobo, Central Java, Indonesia



Source: The registered community forest in APHRW, Wonosobo (ARuPA, 2011)

Appendix 9: The timber legality certificate of GJM, Blora

Certificate No. VLK 00041

SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

Menyatakan bahwa
Certify that

GAPOKTANHUT JATI MUSTIKA
Akta pendirian / *Deed of Notary:* Yani Dwi Rahayu, SH, M. Kn
No. 55 tanggal 23 Juni 2011

Pada Verifikasi Legalitas Kayu telah memenuhi
On Verification of Timber Legality is in compliance with

Peraturan Direktur Jenderal Bina Produksi Kehutanan Nomor : P.6/VI-Set/2009 tanggal 15 Juni 2009 tentang Standard dan Pedoman Penilaian Kinerja Pengelolaan Hutan Produksi Lestari dan Verifikasi Legalitas Kayu Lampiran 5. Standard dan Pedoman Verifikasi Legalitas Kayu pada Hutan Hak.

Decree of Director General of Forest Production Development Number P.6/VI-Set/2009, dated 15th June 2009 on Standard and Guidelines on Performance Assessment of Sustainable Forest Management and Timber Legality Assurance Appendix 5. Standard and Guidelines on Timber Legality Assurance on Community Based Forest

Sertifikasi ini berlaku dengan ketentuan bahwa organisasi selalu memenuhi kriteria sebagaimana ditetapkan oleh SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

The certification is valid provided that the organization continues to meet the criteria as laid down by SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

KAN

Ir. Arief Safari, MBA
Ketua Badan Pelaksana
Chairman of Governing Board

This certificate is valid from October 10th, 2011 until October 9th, 2014

Sertifikat ini harus diperagakan/diperbanyak bersamaan dengan Lampiran - 1
This certificate must be displayed/reproduced in conjunction with Appendix - 1

TL. 100057

Source: primary data

Appendix 10: The timber legality certificate of KWML, Gunungkidul

CERTIFICATE

SUCOFINDO

Certificate No. VLK 00043

SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

Menyatakan bahwa
Certify that

KOPERASI WANA MANUNGGAL LESTARI

Akta pendirian / *Deed of Notary:* Susilowati A. SH
No. 31 tanggal 21 September 2006

Pada Verifikasi Legalitas Kayu telah memenuhi
On Verification of Timber Legality is in compliance with

Peraturan Direktur Jenderal Bina Produksi Kehutanan Nomor : P.6/VI-Set/2009 tanggal 15 Juni 2009 tentang Standard dan Pedoman Penilaian Kinerja Pengelolaan Hutan Produksi Lestari dan Verifikasi Legalitas Kayu Lampiran 5. Standard dan Pedoman Verifikasi Legalitas Kayu pada Hutan Hak.

Decree of Director General of Forest Production Development Number P.6/VI-Set/2009, dated 15th June 2009 on Standard and Guidelines on Performance Assessment of Sustainable Forest Management and Timber Legality Assurance Appendix 5. Standard and Guidelines on Timber Legality Assurance on Community Based Forest

Sertifikasi ini berlaku dengan ketentuan bahwa organisasi selalu memenuhi kriteria sebagaimana ditetapkan oleh SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

The certification is valid provided that the organization continues to meet the criteria as laid down by SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

KAN

Ir. Arief Safari, MBA
Ketua Badan Pelaksana
Chairman of Governing Board

This certificate is valid from October 10th, 2011 until October 9th, 2014

Sertifikat ini harus diperagakan/diperbanyak bersamaan dengan Lampiran - 1
This certificate must be displayed/reproduced in conjunction with Appendix - 1

TL. 100063

Source: primary data

Appendix 11: The timber legality certificate of APHRW, Wonosobo

SUCOFINDO

Certificate No. VLK 00042

SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

Menyatakan bahwa
Certify that

ASOSIASI PEMILIK HUTAN RAKYAT WONOSOBO
Akta pendirian / *Deed of Notary*: Ny. Yenny Ika Putri Hardiyaniwati, SH
No. 19 tanggal 07 Juni 2011

Pada Verifikasi Legalitas Kayu telah memenuhi
On Verification of Timber Legality is in compliance with

Peraturan Direktur Jenderal Bina Produksi Kehutanan Nomor : P.6/VI-Set/2009 tanggal 15 Juni 2009 tentang Standard dan Pedoman Penilaian Kinerja Pengelolaan Hutan Produksi Lestari dan Verifikasi Legalitas Kayu Lampiran 5. Standard dan Pedoman Verifikasi Legalitas Kayu pada Hutan Hak.

Decree of Director General of Forest Production Development Number P.6/VI-Set/2009, dated 15th June 2009 on Standard and Guidelines on Performance Assessment of Sustainable Forest Management and Timber Legality Assurance Appendix 5. Standard and Guidelines on Timber Legality Assurance on Community Based Forest

Sertifikasi ini berlaku dengan ketentuan bahwa organisasi selalu memenuhi kriteria sebagaimana ditetapkan oleh SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

The certification is valid provided that the organization continues to meet the criteria as laid down by SUCOFINDO INTERNATIONAL CERTIFICATION SERVICES

KAN

Ir. Arief Safari, MBA
Ketua Badan Pelaksana
Chairman of Governing Board

This certificate is valid from October 10th, 2011 until October 9th, 2014

Sertifikat ini harus diperagakan/diperbanyak bersamaan dengan Lampiran - 1
This certificate must be displayed/reproduced in conjunction with Appendix - 1

TL. 100059

Source: primary data