

ANALYSIS OF FOREST MANAGEMENT AND
EXTERNAL STAKEHOLDER SUPPORT:
STUDY OF FOREST CERTIFICATION IN INDONESIAN PRIVATE FOREST

A Dissertation

by

INGGITA UTAMI 47-126872

in Partial Fulfillment
of the Requirements for the Degree

Master of Sustainability Science

Advisor: Professor Hirokazu Yamamoto

Co-advisor: Associate Professor Hirotaka Matsuda

Graduate Program in Sustainability Science

Graduate School of Frontier Sciences

THE UNIVERSITY OF TOKYO

August 2014

ANALYSIS OF FOREST MANAGEMENT AND
EXTERNAL STAKEHOLDER SUPPORT:
STUDY OF FOREST CERTIFICATION IN INDONESIAN PRIVATE FOREST

© 2014 by Inggita Utami

All right reserved.

ABSTRACT

As Indonesian deforestation rate in the twentieth century has increased, timber production from the main supplier, the natural production forest, is decreasing. This renders roles of Private forests as an alternative timber supplier become important (BPKH W-XI, 2012; Awang, 2007). For example, in 2004, Indonesian private forest produced 35% of national logs (TFT, 2009). However, currently, there is no professional organization responsible for coordinating with Private forest owners, and for addressing the lack of information about sustainable forest management among them. This is problematic because given the growing timber industry needs, if there is no supporting policy for sustainable private forest and no external stakeholders assistance to improve the capacity of private forests, then the existence of private forest could be endangered (Awang, 2007). Nonetheless, to address this lack of government regulation for sustainable forest management, the Indonesian government has started to implement certification system in the country. This initiative is also a response to the increasingly stringent requirement in the world timber trade for certificates of legality and sustainable forest management of timber products. Currently, there are three systems applied to the entire production forests management in Indonesia, namely FSC-Forest Stewardship Council (Voluntary – International level), LEI-Indonesian ecolabelling (voluntary – national level), and in 2009 the Indo-TLAS – Timber Legality Assurance System (mandatory – national level). Auer (2012) said that through rules, methods, practices, verification schemes, and support for multi-stakeholders, certification systems are expected to protect forest resources and improve forest management.

Based on the problem statement above, this research aims to analyze the influence of the forest certification implementation of FSC, LEI, and Indo-TLAS on the improvement of external stakeholder support and forest management of private forest management in

Indonesia. This research focus on three questions: 1) Who are the stakeholders actively involved in the implementation of forest certification systems in Indonesian private forest, and what are their roles? 2) What facilities do the certification systems provide in order to implement sustainable forest management in Indonesian private forest? 3) How do the forest certification systems and the support they provide for stakeholders influence the private forest's group management?

For answering the research questions, the methodology combined qualitative and quantitative approaches, particularly conducting structured interviews and semi-structured interview to respondents. Respondents include the head of each certified private forest group (n = 21), together with uncertified private forest group (n = 21) for comparison. Respondents from certified groups were identified in accordance to the types of certificate obtained, location (province), and institution companion. On the other hand, respondents from uncertified groups were determined through location differences. Other respondents are representative of the relevant stakeholders revealed through semi-structured interviews.

Results include specific findings on external stakeholder roles especially with regards to decision-making in forest certification system, facilitation of private forest group, and forest management practice of certified groups. First finding: Non-Governmental Organizations (NGOs) are external stakeholders that have an important role in facilitating multi-stakeholder collaboration specific to decision-making process on the policy improvement of voluntary (FSC, LEI) or mandatory (Indo-TLAS) systems for private forest management. On FSC certification, action or commitment on operational, collective and constitutional level are high, compared with LEI and Indo-TLAS (national scale) where commitment to following up and engaging in collaborative action within relevant stakeholder is low and decision-making on constitutional level is still on a deadlock. Second finding: The main priorities of NGOs and agencies who aim to strengthen the local group's capacity are

technical information on the certification system, group asset inventory, and timber market access. Additional training was also provided based on the specific needs of each certification system. Third finding: forest management improvement can be seen in certified groups, with groups certified by FSC system having the highest average score based on criteria and indicator of responsible plantation forest established by FAO, 2006. Certified groups also have organized group asset inventory, increased member's knowledge, skills, and experience, increased recognition, as well as increased attention from external stakeholders. On the other hand, for the uncertified groups, they do not receive as much support from NGOs because of the NGOs limitation in number and distribution, which prevents them from reaching out to uncertified groups. Also, the lack of economic benefits of national certification systems (LEI and Indo-TLAS) affect the overall take-up of certification systems in Indonesian private forest, and create high dependency of certified groups on external support. Generally, forest certification gives a good influence on forest management rather than uncertified group. Compare with other certification system, certified group by Indo-TLAS (mandatory) has limitation effect on management, it only effects on institutional and legality aspect but lack in operational/economic planning and strategy.

Key words: Private Forest, Forest Certification, Voluntary, Mandatory, Multi-stakeholder Processes

ACKNOWLEDGEMENTS

Thank God, Allah SWT, for the wisdom and perseverance that he has been bestowed upon me during this research, and indeed, throughout my life. I would like to express my deepest gratitude to my supervisor, Professor Hirokazu Yamamoto, for the patient guidance, encouragement and advice he has provided throughout my time as his student. I would like to take this time to thank GPSS-GLI for all of the funding they were able to provide to me in order to make this thesis possible. I would like to thank for my mentor and co-advisor, Associate Professor Hirotaka Matsuda, and also Associate Professor Sekiyama for guiding my research.

Completing this work would have been all the more difficult were it not for the support and friendship provided by the other members of the Graduate Program in Sustainability Science in Tokyo University, and PPI (Persatuan Pelajar Indonesia) Today. I am indebted to them for their help.

I would also like to thank my parents, my mother and father in law, and my three younger brothers. They were always supporting me and encouraging me with their best wishes. Finally, I would like to thank my lovely husband, Geradi Yudhistira, MA. He was always there cheering me up and stood by me through the good times and bad.

TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGEMENT.....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
LIST OF ACRONYMS AND ABBREVIATIONS.....	xi
CHAPTER 1: INTRODUCTION.....	1
1.1. Background of the Study.....	1
1.1.1. Private forest management in Indonesia.....	1
1.1.2. Facilities on forest certification system for small-scale forest management..	6
1.2. Problem Statement.....	12
1.3. Research Objective.....	14
1.4. Significance of Research.....	15
1.5. Research Outline.....	15
CHAPTER 2: THEORITICAL FRAMEWORK.....	17
2.1. Multi-stakeholder Processes (MSPs)	17
2.2. Multi-stakeholder involvement on Group Certification for Private Forest.....	20
CHAPTER 3: METHODOLOGY.....	25
3.1. Research Design.....	25
3.2. Selection of Study Area and Respondents.....	26

TABLE OF CONTENTS (Continued)

3.3. Data Collection.....	29
3.4. Data Analysis.....	30
CHAPTER 4: RESULT.....	32
4.1. Stakeholders and their role in private forest certification in Indonesia.....	32
4.2. Facilities for private forest groups (small-scale forestry)	46
4.3. Influence of certification system for management on private forest.....	51
CHAPTER 5: DISCUSSION.....	60
CHAPTER 6: CONCLUSION AND RECOMMENDATION.....	68
6.1. Conclusion.....	68
6.2. Recommendation.....	69
REFERENCES.....	71
APPENDICES	75
APPENDIX 1: Principles, Criteria, Indicators, and Verifiers of FSC – SLIMF (Small and Low Intensity Managed Forest), LEI – Group Certification, and Indo-TLAS – Group Certification implementing for Private Forest Certification in Indonesia.....	75
APPENDIX 2: Database of Certified Private Forest Group by FSC, LEI, and Indo-TLAS until May 2013.....	93
APPENDIX 3: Questionnaire Form and Interview Guidance.....	95

LIST OF TABLES

Table 1.1. Indonesian private forest potential distribution.....	3
Tabel. 1.2. List of problem on private forest management in Indonesia.....	4
Table 1.3. List Non-tariff Barrier	6
Table 1.4. Comparison between voluntary certification system and mandatory system..	11
Tabel 3.1. Respondent's information from 21 certified groups.....	27
Tabel 3.2. Respondent's information from 21 uncertified groups.....	28
Tabel 3.3. List of representative respondents from external stakeholder.....	30
Table 4.1. Percentage of stakeholder involvement in every step of certification process	35
Table 4.2. External stakeholder roles in Private Forest Management in Indonesia based on timeline of forest certification systems implementation.....	45
Table 4.3 List of specific material of training received by certified group respondents.....	51
Table 4.4. List of Aspect for Responsible Management of Planted Forest.....	52
Tabel 4.5. Average score comparison between respondents for forest management.....	53

LIST OF FIGURES

Figure 1.1. Indonesian log production by state-owned source.....	2
Figure 1.2. Private forests problems in Indonesia.....	5
Figure 1.3. Total certified forest area by FSC & PEFC in 2005 – 2012.....	7
Figure 1.4. Mechanism to obtain certificate (red color is facilities for private forest)	12
Figure 1.5. Indonesian primary and secondary processed wood product export 2000 – 2010.....	13
Figure 2.1. The four phases of the process model	19
Figure 2.2. Developing Multi-stakeholder Processes (MSPs) on forest management.....	20
Figure 2.3. Common mechanism of forest certification.....	21
Figure 2.4. Flow of stakeholder involvement on voluntary and mandatory certification scheme.....	24
Figure 3.1. Methodology flow in this research.....	25
Figure 3.2. Location of respondents from certified group.....	27
Figure 3.3. Location of respondents from uncertified group.....	28
Figure 4.1. Comparison of list external stakeholder support on certified groups (n=21) and uncertified groups (n=21).....	33
Figure 4.2. Intensity of facilitation on certified groups (n=21) and uncertified groups (n=21).....	33
Figure 4.3. Stakeholders roles on FSC – SLIMF certification scheme.....	38
Figure 4.4. Stakeholders roles on LEI – PHBML certification scheme.....	41
Figure 4.5. Stakeholders roles on Mandatory certification system (Indo-TLAS).....	44
Figure 4.6. Group formation within certification system.....	47

LIST OF FIGURES (Continued)

Figure 4.7. Map of main development area for certified private forest group in Indonesia	48
Figure 4.8. List of facilitations provided by external stakeholder.....	49
Figure 4.9. List of subsidies provided by external stakeholder.....	49
Figure 4.10. Average score for opportunities and barriers received by certified groups respondents	54
Figure 4.11. (Left) National timber product expo on August 2013 in Jakarta and (right) one of certified group, KWML participated with show handicraft created by certified wood.....	57
Figure 4.12. Market condition and certified timber selling comparison between FSC, LEI, and Indo-TLAS.....	59

LIST OF ACRONYMS AND ABBREVIATIONS

AAC	: Annual Allowable Cut
AP	: Annual Productivity
ARUPA	: <i>Aliansi Relawan Untuk Penyelamatan Alam</i> (Local NGO)
ASI	: Accreditation Services International
ATFS	: American Tree Farm System
B-TO- B	: Business to Business
BP4K	: <i>Badan Pelaksana Penyuluhan Pertanian, Perikanan, dan Kehutanan</i> (Coordinator Body for Technical Forest Officer)
BPKH W-XI	: <i>Balai Pengelolaan Kawasan Hutan Wilayah XI Java-Madura</i> (Forestry Agency on Java-Madura Region)
BPS	: <i>Biro Pusat Statistic</i> (Center of Statistic Bureau)
BUK	: <i>Bina Usaha Kehutanan</i> (Ministry of Forestry Department)
CIFOR	: Center for International Research
COC	: Chain of Custody
DISHUTBUN	: <i>Dinas Perhutanan dan Perkebunan</i> (Local Forest Agency)
DISPERINDAG	: <i>Dinas perindustrian dan Perdagangan</i> (Local Industrial and Trade Agency)
DFID	: Department for International Development
EU	: European Union
FAO	: Food and Agriculture Organization
FKD	: <i>Forum Komunikasi Daerah</i> (LEI Monitoring body)
FLEGT-VPA	: Forest Law Enforcement, Governance, and Trade-Voluntary Partnership Agreement
FSC	: Forest Stewardship Council
G-TO-G	: Government to Government
GDP	: Gross Domestic Product
GERHAN	: <i>Gerakan Nasional Rehabilitasi Lahan</i> (National Land Rehabilitation)
GTZ	: Germany support donor
HCVF	: High Conservation Value Forest

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

HTI	: <i>Hutan Tanaman Industri</i> (Industrial Plantation Forest)
IDEAS	: Local NGO based in West Java
INDO-TLAS	: Indonesia- Timber Legality Assurance System
ITTO	: International Tropical Timber Organization
JAUH	: <i>Jaringan Untuk Hutan</i> (Local NGO)
JAVLEC	: Java Leading Centre (Local NGO)
JCP	: Joint Certification Protocol
JPIK	: <i>Jaringan Pemantau Independen Komunitas</i> (Indo-TLAS Monitoring body)
KAN	: <i>Komite Akreditasi Nasional</i> (Indonesia Accreditation Body)
KBR	: <i>Kebun Bibit Rakyat</i> (Seedling land)
KEPMENHUT	: <i>Keputusan Menteri Kehutanan</i> (Forestry regulation)
KHJL	: <i>Koperasi Hutan Jaya Lestari</i> (private forest group)
KSU APIK	: <i>Koperasi Serba Usaha Asosiasi Pengrajin Industri Kayu</i> (private forest group)
KWLM	: <i>Koperasi Wana Lestari Menoreh</i> (private forest group)
KWML	: <i>Koperasi Wana Manunggal Lestari</i> (private forest group)
LATIN	: <i>Lembaga Alam Tropica Indonesia</i> (Local NGO)
LEI	: Indonesian Ecolabelling
LITBANG	: <i>Balai Penelitian dan Pengembangan</i> (Forest Agency for Research and Development)
MFP II	: Multi-stakeholder Forestry Programme
MOF	: Ministry of Forestry
MSPS	: Multi-stakeholder Processes
NIPF	: Non-Industrial Private Forest
NGO	: Non-governmental Organization
P, C, & I	: Principles, Criteria, and Indicators
PEFC	: Pan-European Forest Certification
PEMDA	: <i>Pemerintah Daerah</i> (local government)
PERMENHUT	: <i>Peraturan Kementrian Kehutanan</i> (Forestry law)

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

PERSEPSI	: <i>Perhimpunan Untuk Studi dan Pengembangan Ekonomi dan Sosial</i> (local NGO)
PERUM PERHUTANI	: <i>Perusahaan Umum Kehutanan Negara Indonesia</i> (State forest Enterprise)
PHAPL	: <i>Pengelolaan Hutan Alam Produksi Lestari</i> (LEI certification for natural forest)
PHBML	: <i>Pengelolaan Hutan Bersama Masyarakat Lestari</i> (LEI certification for community-based forest management)
PHTL	: <i>Pengelolaan Hutan Tanaman Lestari</i> (LEI certification for plantation forest)
PKHR	: <i>Pusat Kajian Hutan Rakyat Universitas Gajah Mada</i> (Local NGO)
PP	: <i>Peraturan Pemerintah</i> (Government Regulation)
SATIN	: <i>Sahabat Indonesia Timur</i> (local NGO)
SCF	: Sulawesi Community Foundation (Local NGO)
SFI	: Sustainable Forest Initiative
SFM	: Sustainable Forest Management
SHOREA	: Small Home of Rural Empowerment Activists (Local NGO)
SKAU	: <i>Surat Keterangan Asal Usul Kayu</i> (Timber transportation document)
SLIMF	: Small and Low intensity Managed Forest
SSS Pundi Sumatera	: <i>Sumatera Sustainable Support – Perhimpunan Untuk Kemandirian masyarakat sipil di Sumatera</i> (Local NGO)
TFT	: The Forest Trust (International NGO)
VLK	: <i>Verifikasi legalitas kayu</i> (Indo-TLAS forest management certification)
WWF	: World Wide Fund (International NGO)

CHAPTER 1: INTRODUCTION

I. Background of the Study

1.1. Private Forest Management in Indonesia

The high deforestation rate in the nineteenth and the twentieth century¹ have led to a decrease of total area and timber productivity from natural forest as a major industrial raw material supplier (FAO, 2012). This situation makes timber stocks declined and plantation forest become main or potential raw material supplier in several important timber-producing countries (FAO, 2012), including Indonesia (MoF, 2012). Indonesia as the largest tropical log producer (ITTO, 2011), experienced a decline in log production from natural production forests from 17.3 million m³ in 1994 to 5.6 million m³ in 2006 (FAO, 2009), figure 1.1, because of high deforestation rate in 1990-2005 reached 1.38 million ha/year (FAO, 2010). In an effort to preserve the production in forestry sector in which the contribution to Indonesia GDP which continued to decline (MoF, 2012), Indonesia government developed plantation forests managed by state corporate (PERUM PERHUTANI)², and plantation forest owned and managed by individual (BPKH W-XI Jawa Madura, 2012). According to MoF (2012), log production from PERHUTANI is still far from the national needs, figure 1.1, otherwise the production of timber from private forests increased, even become a major supplier of raw materials in some timber industry centers in Java Island (Kaban, 2005). According to TFT (2009), Indonesian private forest area can contributed to 25% of the national log supply (10.7 million m³ by 42.3 million m³) with total area only 3% from total forest cover.

¹ The highest rates of deforestation occurred in temperate forest until the early 20th century, and it rapidly increased in the world's tropical forests during the 20th century due to increase of population growth and industrial expansion.

² PERHUTANI (Perusahaan Umum Kehutanan Negara Indonesia) or state-owned plantation forest was developed under Government Regulation PP no. 72/ 2010

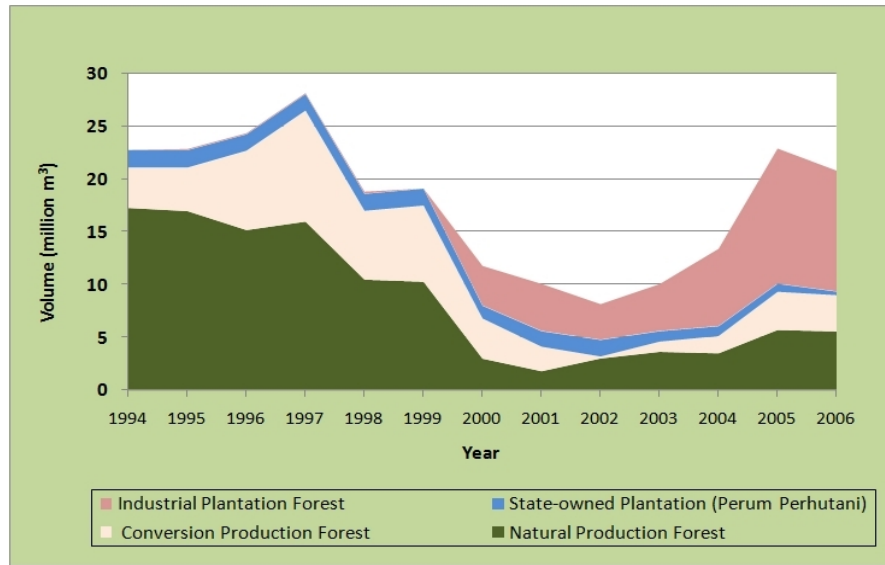


Figure 1.1. Indonesian log production by state-owned source³ (FAO, 2009)

Characteristically, most of the private forest owned by individuals or families as smallholders (small-scale forest), produces commercial timber that do not operate wood-processing plants (NIPF - Non-Industrial Private Forest) (Harrison et al., 2002). Small-scale is defined more in terms of size of land holdings are relatively small (for example, the average total land ownership in Japan around 2.7 ha (Ota, 2007), Europe around 3 ha (Hirsch et al., 2007), and India 0.1 ha (Harrison et al., 2002) compared to the state forest size up to thousand ha (large-scale forest). In Indonesia, the private forest land ownership is relatively narrow (only <0.75 ha/owner the Kepmenhut No.49/Kpts-II/1997 that defines private forest as “forest growth on land who’s belong the individual household with a minimum area of 0.25 ha in crown cover of woody plants or other types more than 50 % and first year crop with a minimum of 500 plants per ha”. Generally, private forests in Indonesia owned and managed by individuals and families in rural area, which were growth by commercial timber species, such as Teak (*Tectona grandis*), Falcata (*Paraserianthes falcataria*) and others local

³ Specific for industrial plantation forest (HTI), the timber supply is intended for large timber industrial as an owner of the forest land

species, with mostly agro forestry mechanism in the silviculture (Awang, 2005). According to BPS (2003), total private forest area on 2003 was 1,130,000 ha and increase three times to 3,589,343 ha in 2009 or 4% from total 86 million ha Indonesia forest area (Indrarto, 2009; MoF, 2009). In 2009, the potential of timber harvest in private forest is 20,937,836 m³/year and potential standing stock is 125,627,018 m³, table 1.1. According to table 1.1. distribution of private forest land 77% concentrated on Java Island with potential timber harvest reach until 16 million m³/year or if optimized private forest could supply 80% of the total national log production in 2006 in figure 1.1.

Table 1.1. Indonesian private forest potential distribution

Location (Island)	Total area (ha)	Potential	
		Standing Stock (m ³)	Timber harvest – 6 year rotation (m ³ /year)
Sumatera	220,404	7,714,143	1,285,690
Java-Madura	2,799,181	97,971,335	16,328,556
Bali – Nusa Tenggara	191,189	6,691,612	1,115,269
Kalimantan	147,344	5,157,023	859,504
Sulawesi	208,511	7,297,892	1,216,315
Maluku	8,550	299,250	49,875
Papua	14,165	495,765	82,627
Total	3,589,343	125,627,018	20,937,836

Source : (Indrarto, 2009)

Limitations on size and majority ownership by rural individual or community, making the private forest in both developed and developing countries have barrier especially in term of capacity (Stewart et al., 2003). According to (TFT, 2009) to increase the capacity of small-scale forest management, there needs to be reform in the forest silviculture techniques, local institutional, administrative, and legality. In the case of private forest management in Indonesia, as can be seen in Table 1.2, crucial issue was still present in every aspect.

Table 1.2. List of problems on private forest management in Indonesia

Aspects	Causes	Effects
Forest silviculture technique :	- Lack of knowledge and skills in the cultivation of wood (ideal spacing, treatment, thinning, and fertilization)	- Quality of timber product is still far from industrial standard
Institutional :	- There is no professional organization to control timber selling - Limited funding access to farmer groups especially for capital and loan	- Limitation of working capital - The bargaining position to the buyers is still weak - Most of the profit margin for outsider
Administration :	- Logging is done if the owner needs huge money (<i>Tebang butuh</i>) because the timber price is big for farmer, around US\$ 300/m ³ for diameters >25 cm - Determination of AAC (Annual Allowable Cut) and Annual Productivity (AP) timber that is rarely done - Mapping for member distribution land and group asset is still lack	- Farmer group has no plans to increase profits from timber
Legality :	- Labeling trees and timber still not be a requirement - Inventory of forest land tenure and timber transport document is has not yet arranged	- Private forest opportunities to meet the requirements of the international market which need legal documents is still low

Source: (Awang et al., 2007; TFT, 2009)

According to Awang et al. (2007), support policy of sustainable forest management by government is needed to save the existence of the Indonesian private forest where continue in under pressure from the timber industry, figure 1.2. While in Indonesia, policies relating to private forests and their management are still limited, including:

- Expansion of private forest area through regulation of GERHAN (Gerakan Nasional Rehabilitasi Lahan) “Indonesia Forestry Act P.03/MENHUT- V/2004” as a National degraded land rehabilitation, including in the critical area of private property,
- Provide documents of timber transportation from private forest (with SKAU “*Surat keterangan Asal-Usul*” documents) under regulation Permenhut P.51/Menhut-II/2006 jo Permenhut P.62/Menhut-II/2006 jo Permenhut P.33/Menhut-II/2007 and Surat edaran Dirjen BUK No. S.1047/VI-BIKPHH/2006.

According to some experts, those policies are still limited guarantee the sustainability of the production, and strengthening of private forest institutional. According to (TFT, 2009) increasing the capacity of the private forest owners and management can be done through training and mentoring which are planned according to the particular needs from expert outsiders. Until now only Dishutbun atau “Dinas kehutanan dan Perkebunan” (District Forest Agency) in cooperation with the Litbang Kehutanan – “badan Penelitian dan Pengembangan Kehutanan” (Forest Research and Development Agency), and “Penyuluh Kehutanan” (Forestry technical officer) that directly provide facilitation to the farmer groups at the village level or sub-village. Facilities provided only limited provision of free seedlings or also provide information on silvicultural techniques. The number of Forestry technical officer also limited. For example, based on survey, in Maros District, Southeast Sulawesi, there are only 7 persons technical officer spread to 100 sub-districts / villages or equal with 4,000 sub-villages.

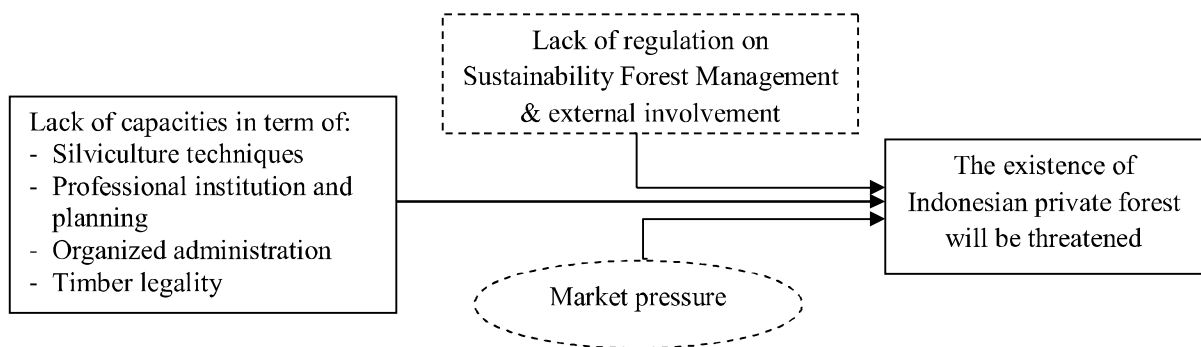


Figure 1.2. Private forests problems in Indonesia

1.2. Facilities on Forest Certification system for small-scale forest management

The high tropical deforestation rate is not only affect national timber production, but also affects the various rules in the international timber trades who started sensitive to the issue of environmental damage (ITTO, 2011; Taylor et al., 2005). According (Sianturi & Subarudi, 2008), now some world tropical timber consumer countries applying non-tariff

barrier as “a set requirement (non-tax requirement) that have to be met by exporters which relate to product technical standards, rules of origin, forest certification and Eco labeling, health and safety standards, and environmentally friendliness” as can be seen in table 1.3.

Table 1.3. List Non-tariff Barrier

Countries	Product	Minimum Requirements	Level of Compliance
Belgium	Wood	Sustainable	Mandatory
Denmark	Wood / Paper	Legal + Sustainable	Voluntary
France	Wood / Paper	Legal Sustainable	Mandatory
Germany	Wood	Legal Sustainable	Mandatory
Netherlands	Wood / Paper	Legal + Sustainable	Mandatory
Norway	Wood / Paper	No Tropical	Voluntary
Switzerland	Wood / Paper	Sustainable (legal)	Voluntary
United Kingdom	Wood / Paper	Legal Sustainable, FLEGT	Mandatory
European Union	All	Legal	Guidance
New Zealand	Wood / Paper	Legal + Sustainable	Mandatory
China	Wood	Labeling	Mandatory
Japan	Wood / Paper	Legal + Sustainable	Mandatory
Mexico	Wood / Paper	Legal + Sustainable	Mandatory

Source: (Setyowati, 2012)

To get a certificate of timber legality and or sustainable forest managed certificate as required by the importer countries on table 1.3, production forest management units and timber industrial on exporter countries have to passed verification process of Principles, Criteria, and Indicators (P, C, and I) of sustainable forest management (SFM) on forest certification schemes (Sianturi & Subarudi, 2008). Forest certification was conceived as a market-based system that identifies products coming from responsibly managed forest (Stewart et al., 2003). Until now, there are several various types of certification schemes even developed in voluntary or mandatory scheme on international and national level. Two major voluntary international systems have dominated forest certification, namely the Forest Stewardship Council (FSC), backed by NGOs developed in 1993, and the Pan-European Forest

Certification (PEFC), backed by forest owners and industries in developed in 1999 (Klingberg, 2003). Even though the development of the international certification levels in particular continues to grow today (especially for total certified forest by FSC and PEFC as in figure 1.3.), but a still far from the main purpose of forest certification when first applied which to reduce tropical deforestation and prevent legal timber trade from the tropical countries (Elliott, 2000). Auer (2012) said that only 10% of the total certified forest in the world that comes from the tropical area.

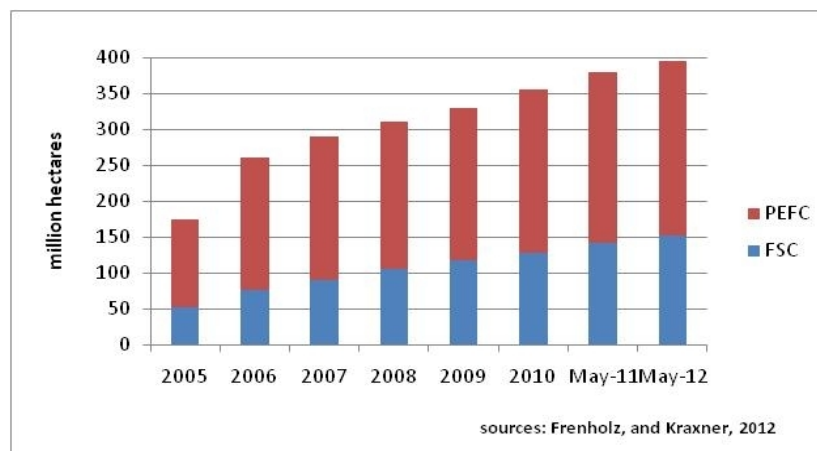


Figure 1.3. Total certified forest area by FSC & PEFC in 2005 – 2012

Klingberg (2003) said that certification schemes not only influence policy at the national level, but also will be impacted on the smallholder forest land which has been a supplier of wood-based export oriented industries. Indonesia as one of the largest wood export country in the world (ITTO, 2011), currently implements three types of certification forest as a requirements in order to respond global timber trade requirement, namely:

- FSC (Forest Stewardship Council) → Voluntary, international level
- LEI (Indonesia Ecolabelling) → Voluntary, national level
- Indo-TLAS (Indonesia- Timber Legality Assurance System) → Mandatory, national level

Since 1998, officially FSC certification system implemented in Indonesia for industry and production forest, and around 2003 implemented for small scale forest by assistance and facilitation several international NGOs such as WWF (World Wide Fund), and TFT (Tropical Forest Trust) (Elliott, 2000). There are four schemes provided by FSC systems, namely forest management certification, Chain of Custody (CoC) certification, Controlled wood, and SLIMF. SLIMF or Small Low Intensity Managed Forest certification developed in 2002 specific is intended for small-scale and low intensity forest management unit by reducing certification costs, by streamlining certification procedures, by creating draft guidelines for the production of more appropriate and user-friendly standards (Stewart et al., 2003). SLIMF scheme can be obtained through the group certification intended for private forest owner's group or private forest management unit consisting of a combination of individual private forest landowners. According to FSC (2013), until May 2013 total certified forest by FSC was 176,735,471 ha in the world, and 1,725,972 ha certified for Indonesian forest.

Since the FSC implemented in Indonesia in 1998, there are particular issues in the application of FSC's criteria and indicators that are considered less appropriate with forest conditions in Indonesia (Elliott, 2000). On the same year in 1998, Indonesian government started to reform and built their own certification system and in 2003 initiated the formation of The Indonesian Ecolabelling Institute (LEI) as an independent organization to establish its own criteria and indicators with implementation on national scale by LEI certification system (LEI, 2014). There are three schemes provided by LEI system, namely Chain of Custody certification for industry, PHAPL certification (Pengelolaan Hutan Alam Produksi Lestari) for natural production forest, PHTL certification (Pengelolaan Hutan Tanaman Lestari) for Plantation forest, and PHBML certification (Pengelolaan Hutan Bersama Masyarakat Lestari) for community-based forest management which is Private forest included in this scheme. PHBML scheme can be obtained through the group certification in cooperation with local

NGOs such as PERSEPSI, ARUPA, in facilitating the group. Until June 2013, there were 1,871,433 ha of certified forests by LEI in Indonesia with details on natural forest 411,690 ha, plantation forest 1,429,055 ha, and community forest/private forest 32,683 ha (LEI, 2014). Both FSC and LEI are voluntary scheme with a market-based mechanism as collaboration B to B (business to business) where each certificate has different validity time. During the validity time, each certified management units must undergo surveillance, to ensure that each year the certified forests always indicate performance in accordance with the P, C, and I of Sustainable Forest Management.

Indonesia government not only implemented voluntary scheme, but also establish the mandatory national policy by the FLEGT-VPA (Forest Law Enforcement, Governance and Trade – Voluntary Partnership Agreement) has been signed in Bali Declaration 2004 which is the producer and consumer of timber products should be implementing legal timber trade. Since an effort to improve the standard of legality in timber trade from Indonesia, to improve the image of Indonesia as a tropical timber producing countries, and reduce illegal logging, the Indonesian government designs timber legality verification in 2009 through Indo- TLAS (Timber Legality Assurance System) under forestry regulation (Permenhut) No.P38/Menhut-II/2009 jo P.68/Menhut-II/2011 jo P.45/Menhut-II/2012. Through this policy, the Indonesian government through the Ministry of Forestry requires all production forest management units which derive from natural forests, plantations state forest, private forests, and timber industry to be verified by this policy. There are two types of certification provided by Indo-TLAS, namely CoC certification for industry, VLK certification (Verifikasi Legalitas Kayu) for forest management unit. VLK for Private forest scheme can be obtained through the group certification by supporting external parties, especially in the provision of facilitation and financial support in response limitations of private forest itself (Susilawati, 2013). As a verification scheme that uses the standards and criteria of legality and sustainable forest




management, Indo-TLAS also have validation time, surveillance time, Cost of initial audit and cost of surveillance, as well as the marketing process that can be compared with the voluntary scheme in table 1.4.

The most fundamental comparison between certification scheme such as FSC, LEI, and Indo-TLAS is the Principle (P), the Criterion (C), and the Indicator (I) on each scheme. P, C, & I can affect the cost, market expansion, technical procedure, and stakeholders involved on each certification scheme (Yuliani et al., 2007). According to Yuliani et al. (2007), a principle is defined as “*fundamental truth or law as the basis of reasoning or action. In the context of sustainable forest management, principles are viewed as providing the primary framework for managing forests in a sustainable fashion*”. Principles provide the justification for criteria, indicators and verifiers. A criterion is defined as “*a principle or standard that a thing is judged by. An indicator is any variable or component of the forest ecosystem or the relevant management systems used to infer the status of a particular criterion*”. To verify the criteria and indicators which contained in each scheme, it is necessary for verifier. A verifier is defined as “*data or information that enhances the specificity or the ease of assessment of an indicator*”. In table 1.4 can be seen the principles on the three certification system. FSC and LEI focuses on production, economic, and social aspect while Indo-TLAS focus on the legality of timber products.

Generally, to obtain the certification, there are several steps starting from the initial socialization from the policy makers or certification institution, and then gathering the required documents, verification / certification process, publications (if you pass the verification step), the sale of certified timber to the certified timber market. Every year (or depends on each certification system regulations) there are surveillance to ensure that certified forest management units still run sustainable forest management. In addition there will be a re-certification after the validation time end. Special to small scale forest in the

developing countries, there is funding support or subsidies for the initial certification cost. Intensive facilitation, and open dialogue also facilitated for small-scale forest. The following is a mechanism to obtain certification shows on figure 1.4.

Table 1.4. Comparison between voluntary certification system and mandatory system

	Forest Stewardship Council 	Indonesian Ecolabelling 	“INDO-TLAS” Timber Legality Assurance System 
Scale	International, Voluntary	National, Voluntary	National, Mandatory
Year established	1998	2003	2009
Principles (P), and Criteria (C)	10 principles, 56 Criteria The Principles: -Compliance with laws & FSC principles -Tenure and Use Rights and Responsibilities -Indigenous People's Rights -Community Relations & Worker's Rights -Benefits from the Forest -Environmental Impact -Management Plan -Monitoring and Assessment -Maintained of High Conservation Value Forests (HCVF) -Plantations	3 Principles, 21 Criteria The Principles: - Sustainable Production Function - Sustainable Ecological Function - Sustainable Social Function	1 Principles, 1 Criteria The Principles: - Timber ownership can be authenticated
Note: See Appendix 1 for detail			
Market	“B to B” / Business to business Market	“B to B” / Business to business Market	“G to G” / Government to government Market
Type of certification	Forest management certification, Chain of Custody (CoC) certification, Controlled wood, and SLIMF	CoC certification, PHAPL certification, PHTL certification, PHBML certification	CoC certification, VLK certification
Scheme for Private Forest	SLIMF (Small Low Intensity Management Forest) – Group certification	PHBML - Group Certification	VLK - Group Certification
Initial audit cost for private forest group	Expensive	Medium	Cheapest
Validation time for private forest group	5 years	15 years	10 years
Surveillance for private forest group	Once / year	Once / 5 years	Once / 2 years

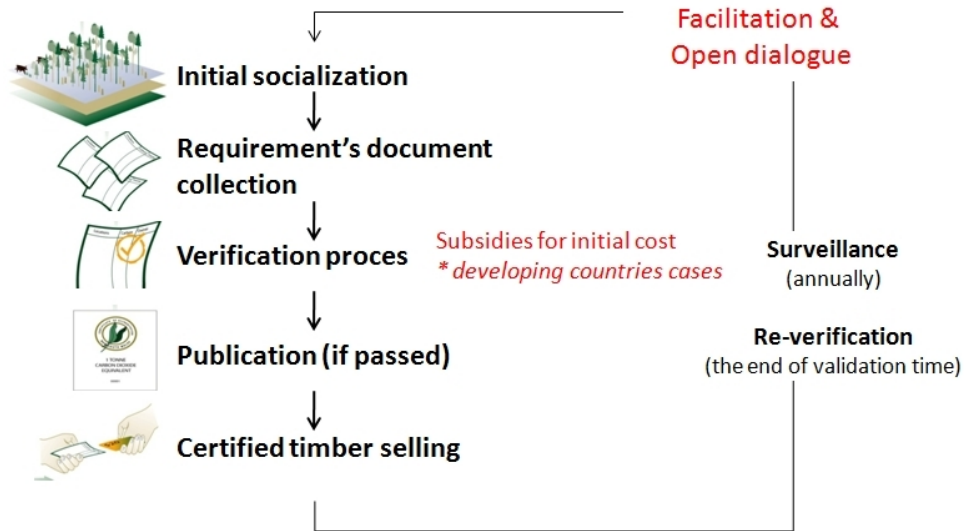


Figure 1.4. Mechanism to obtain certificate
 (Note: red color is facilities for private forest)

II. Problem Statement

Since 2000, Indonesian timber export in primary wood product (plywood, sanwood) and secondary processed wood product continued to decline, figure 1.5. (ITTO, 2011) and one of reason because there are increase of requirements of legality and sustainable certificate in international timber market (Sianturi & Subarudi, 2008). The Indonesian government is getting active improve national timber export not only by implementing voluntary certification system, such as FSC and LEI (Jurgens, 2006) but also create a mandatory system (Indo-TLAS) that supported the various stakeholders (Dharmawan et al., 2012). Especially for smallholder forest land, certification system applied in groups with intensive facilitation and initial cost subsidies support are expected to improve the management of private forests in Indonesia (Harada & Wiyono, 2013)

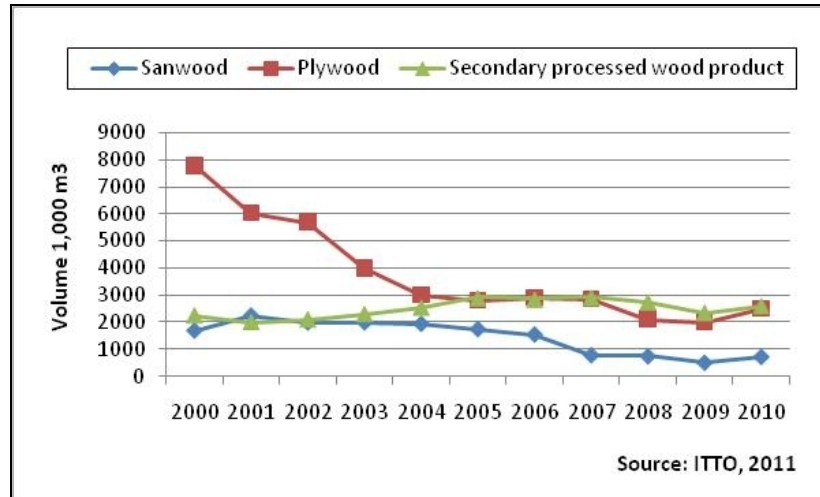


Figure 1.5. Indonesian primary and secondary processed wood product export 2000 – 2010

Indonesian private forest which now supplied 40% of the total national log production now become a main log supplier in several regions in Indonesia, particularly in Java Island (BPS, 2003). Even though private forests in Indonesia now became important, but still have not been balanced with the production, and harvesting planning, inventory group asset, as well as the collective management with farmer organizations (Awang et al., 2007). At the constitutional level, the Indonesian government is still focused on expanding private forest land itself with several regulations such as GERHAN as a National degraded land rehabilitation, and KEBUN BIBIT RAKYAT – KBR as a program of development timber seedling on private land owned (Indonesia Forestry Act P.12/Menhut-II/2013), as well as regulation for controlling timber transportation document from private forest under regulation Permenhut P.51/Menhut-II/2006 jo Permenhut P.62/Menhut-II/2006 jo Permenhut P.33/Menhut-II/2007. Since 2003, when the voluntary forest certification system was implemented in Indonesian forest management unit, practically this system became the first regulations for the Indonesian private forest who set the details of sustainable forest management (The World Bank, 2012). Then, in 2009 the Indonesian government officially implemented the mandatory system as a result of the development of bilateral FLEGT (Forest

Law Enforcement Governance and Trade) Voluntary Partnership Agreements (VPA) with official agreement with the EU in 2011 (The World Bank, 2012). Facilitations support and initial cost subsidies became into a special facilities for private forest owners in Indonesia. Facilitation in the group given the certification scheme clearly leads the group to apply the principles of small-scale forest sustainable management by strengthening marketing management group to be beneficial of the land owners (Vokoun et al., 2006). This study will analyze more deeply how the effect of implementation of certification on Indonesian private forest groups in improving management in institutional management. As a support theory in this study, Auer (2012) confirm that certification forest considered able to provide systematic group planning, improved inventory, maintenance, sustainable harvesting planning, and other environmental provisions. Referring to the statement, the hypothesis in this study is Forest certification improving external stakeholder support and forest management on certified private forest group in Indonesia.

III. Research Objective

This research aims to analyze the influence of forest certification for improving external stakeholder support and forest management on Private forest's group in Indonesia. To support the objectives of this study, there are three research questions, including:

- 1) Who are the stakeholders actively involved in the implementation of forest certification systems in Indonesian private forest, and what are their roles?
- 2) What facilities do the certification systems provide in order to implement sustainable forest management in Indonesian private forest?
- 3) How do the forest certification systems and the support they provide for stakeholders influence the private forest's group management?

IV. Significance of Research

The main expectation of this research is to provide recommendation to develop a certification scheme for uncertified private forest groups in Indonesia which not only for mandatory scheme (Indo-TLAS) but also for voluntary scheme (FSC and LEI). According to the literature review on previous section, forest certification is essential in improving the private forest management in developing countries, especially for strengthening institutional levels, production and harvesting planning, and more coordinated on timber marketing level. This study also shows a comparison of the current situation of uncertified and certified private forest groups in Indonesia, particularly in terms of external stakeholders support, such as local governments, NGOs, academia, industry, as well as relevant stakeholders in providing assistance related to improvements in the institutional management. Related to the context of a national scale, this research is expected to contribute to finding reason and recommendation for slowly development of the certified group not only in Java Island as the center of private forest areas in Indonesia but also in some large islands outside Java which is Indonesia government predicted there is an increase in total private forest area there. Finally, this study hopefully will contribute to the development regulation of private forest, either regulation has been applied both in local and regional level in Indonesia, which will contribute to the welfare of the rural community as the owner of the private forest land in Indonesia.

V. Research Outline

This study consists of six chapters. In chapter 1, Introduction, I will discuss the background of the study in general, especially on the issue of private forest management in Indonesia and implementation of voluntary certification system (FSC and LEI), as well as mandatory certification system (Indo TLAS) in term of various facilities are provided for

private forest groups. In addition to the background of study, the research problem, research objectives, signification of research, and research outline are covered in this chapter. In chapter 2, Theoretical framework, I will discuss the theory of Multi-Stakeholder Processes (MSPs) in the development of systems and policies in forest management, and forest certification theory in private forests group in small-scale certification forest scheme. In chapter 3, Methodology, I will discuss information about the research design, selection of study area, data collection, and data analysis. In chapter 4, Result, I will discuss about list of stakeholders involved and their role in private forest certification in Indonesia, Facilities for certified private forest groups (small-scale forestry), and Influence of certification system for management on private forest. In chapter 5, Discussion, I will discuss Formation of Private Forest Group and Institutional Strengthening, Multi-stakeholders processes on Private Forest Certification in Indonesia, and Systems or policies applied on certification system (FSC, LEI, and Indo-TLAS). In chapter 6, Conclusion and Recommendation, I will summarize all the points that have been discussed in the discussion chapter and limitations in this study. This section will also explain the various recommendations to strengthen forest management through the development of forest certification in Indonesia.

CHAPTER 2: THEORITICAL FRAMEWORK

2.1 Multi-stakeholder Processes (MSPs)

On Earth Summit in 1993, was a milestone in the reform paradigm shift in forest management decision making in the world (Gilmour et al., 2007). Forest management that previously monopolized by the government now had a lot of responses from the interest groups about over-exploitation (production oriented) that led to massive deforestation in natural forests in particular (Gilmour et al., 2007). One result of the Earth Summit on “Forest Principles” emphasizes that sustainable forest management (SFM) is the action of forest management should be run today, where the goal of SFM not only for economic but also social, and environmental aspect (conservation orientation) (Hemmati, 2002). According to the FAO (2007), to achieve sustainable goal on forest management is required a multi-stakeholder processes (MSPs) by adding the number of stakeholders involved, especially in making decisions for the sake of a common goal. According (Stein & Stewards, 1999), MSPs are “*Decision-making bodies (voluntary or statutory) comprising different stakeholders who perceive the same resource management problem, realize their interdependence for solving it, and come together to agree on action strategies for solving the problem*”. Generally, MSPs aims to establish dialogue about forest policy reform (Fahmi et al., 2003) and to enable the empowered and active participation of stakeholders in the search for solution to a common problem (Faysse, 2006). According to Hemmati (2002), Stakeholders are “*those who have an interest in a particular decision, either as individuals or represenattives of a group*”.

In the current development, MSPs not only applied in the global or international level, but also in the level of regional, national, and local level. In the regional level, such as the Asia Pacific, MSPs is still running slowly, but it has given a lot of evidence of a paradigm change in forest management leading to sustainable forest management objectives with the

cooperation of various stakeholders (Fahmi et al., 2003). In national level, developed countries became a prior to initiate MSPs by interest groups which began to think of a way to manage forests on social and conservation goals oriented (Yuliani et al., 2007). In developing countries, especially in the tropical area, MSPs began to be focused to strengthen public institutions after developing countries proved to have virtually no civil society groups are well organized (Woodhill, 2004). For example, Indonesia as the country with the second highest rate of deforestation in the world (1.71 million m³/year in 1990 – 2010), are now beginning to strengthen institutions at the local level with the support of MSPs after state authorities proved less effective in managing forests (Fahmi et al., 2003). Promotion of MSPs in the local level proved a positive influence in several ways, including: (1) become a liaison between the local levels with national policy; (2) seeking a way to empower the local level to be self-sufficient in meeting the financial needs; (3) supporting capacity building for key stakeholder groups. According to (Woodhill, 2004), there are for phases of the process model, as can be seen in figure 2.1, are:

- **Setting up** as “*establishing the reason for an MSP initiative, mobilizing community interest, and deciding what organizational and institutional arrangements are needed*”,
- **Planning Strategically** as “*undertaking the detailed planning and strategy development needed for an MSP to be successful*”,
- **Implementing and Managing** as “*managing the implementation and ongoing resourcing of the initiative and ensuring continued community input and support*”,
- **Learning – Monitoring and Adapting** as “*monitoring the impact, the successes and failures, learning from these, and continually improving what is being done*”

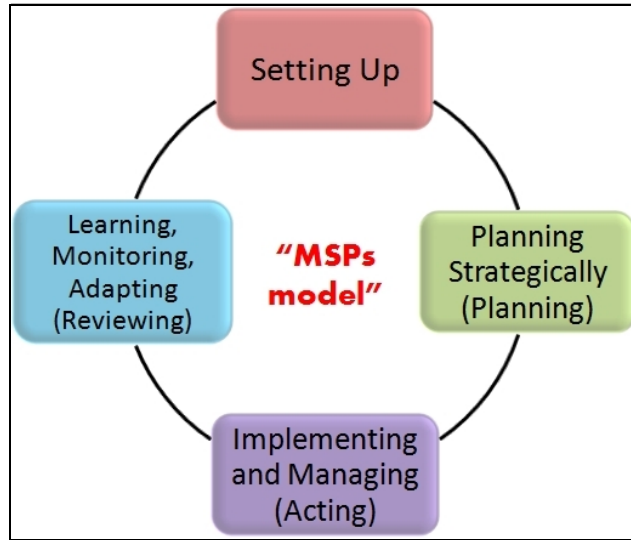


Figure 2.1. The four phases of the process model (Woodhill, 2004)

According to Fahmi (2003), forest management as a common pool resource must focus on the regulation of the production and consumption of timber and service. In the forest management, public institutions can participate and organize management directly through Multi-Stakeholder approach. In the concept of social forestry, to strengthen community institutions and public involvement is needed facilitation of various stakeholders in order to motivate the various stakeholders in the same interests and goals of economic sustainability and conservation of natural resources. In MSPs needed a guarantee of long-term support of the initiators and facilitators as the main supporter. Therefore, to run a MSPs concept required high transaction costs and some countries need donor support to help meet sufficient conditions. The developing Multistakeholder Processes (MSPs) on forest management flow can be seen on figure 2.2. MSPs in forest management ensure that the common issues that occur can be resolved by wider stakeholders from government to local communities. In the local level, Fahmi et al. (2003) says that the local people have limitations in terms of capacity and must be supported by reinforcement's organizations both in terms of access to information, and knowledge. Local government should strengthen local organizations by

improving access to information and training; it is often deficient in the capacity to bring the reform. Many cases of MSPs show the role of NGOs (Non-Government Organization) as an initiator in the adoption of MSPs in bridging the international regulation to the local level. (Hemmati, 2002) said that the global level, the International NGO has been actively engaged not only in giving its influence in global decision makers in forest policy but also already involve in the stage of designing. According Fahmi et al. (2003), there are three levels of decision making in strengthening measures of MSPs, including:

- Operational level choice is decision-making based on existing institutional framework
- Collective level is decision-making by a group of people with authority to do so.
- Constitutional level is decision-making by a group of people with authority to do so, and the decision regulates what is allowed or not allowed at a collective level.

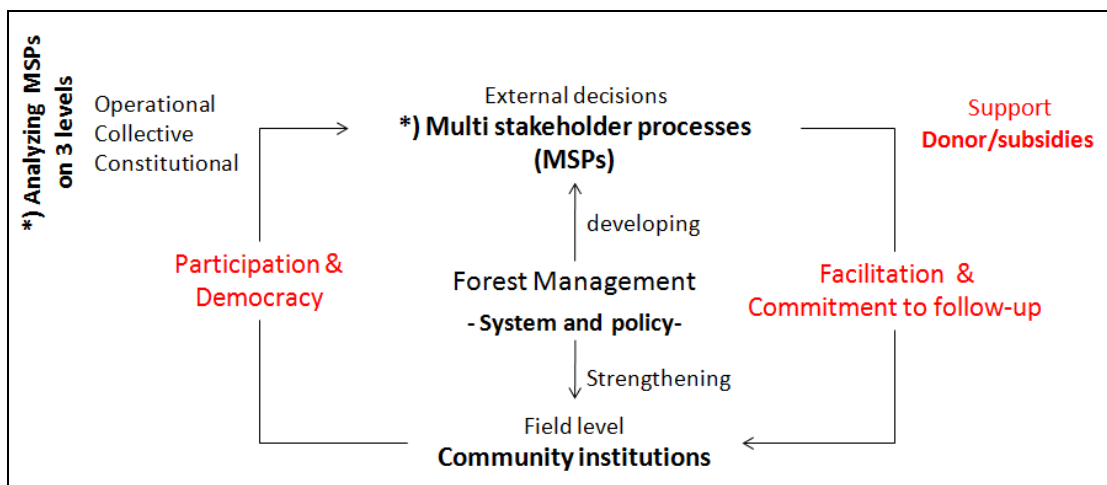


Figure 2.2. Developing Multistakeholder Processes (MSPs) on forest management

(Fahmi et al., 2007; Gilmour et al., 2007)

2.2 Multi stakeholder involvement on Group Certification for Private Forest

The high rate of tropical deforestation on nineteenth century made several international organizations promoting boycott of tropical timber products because unsustainable manner and product (Elliott, 2000). After the role of multi-stakeholder being

recognized after the Earth Summit 1992, several international NGOs in 1993 agreed to create a initial certification system in international level, FSC (Forest Stewardship Council), as market based-tool to ensure that timber products in the market have passed with several assessment of criteria and indicator of sustainable forest management, figure 2.3 (Sianturi & Subarudi, 2008). Several major certification even international and national system established after that, such as PEFC (Programme for the Endorsement of Forest Certification) on 1999 as a major International schemes with FSC; USA national system, such as SFI (Sustainable Forest Initiative) and ATFS (American Tree Farm System) (Fernholz & Kraxner, 2012), and also in several producer countries (Elliott, 2000). According to Auer (2012), Forest and timber certification are system to promoting sustainable forest management through rules, methods, practices, and verification schemes. Zhao et al., 2011 said that forest certification is a mechanism involving the regulation of trade of forest products in order to protect forest resources and improve forest management.

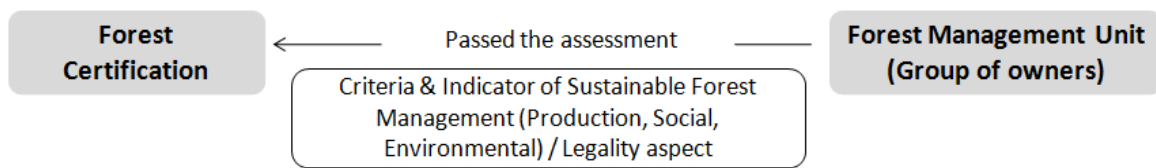


Figure 2.3. Common mechanism of forest certification

Referring to the history of a certification system which established by the Multi-Stakeholder Processes, Eba’a & Simula (2002) explains that there are several stakeholders involved as a key participant in the either voluntary or mandatory certification scheme, namely:

- The government, it is became a soft policy to promote sustainable forest management;
- Industry and Trade, it is an instrument for environmental marketing;
- Buyers and consumers, it provides information about products that they purchase;

- The owners, it is a tool to achieve market access and market advantages;
- The environmental movement, it is a way to influence production forest management.

Yuliani et al. (2007) explained that specific for smallholder forest land, the group certification scheme specifically established aimed allows a number of small operations to work together and apply for certification as a single entity, for reducing high cost of certification and providing facilities to increase capacity constraints in meet the criteria and indicators in each forest certification scheme. Even to the level of forest farmers, are expected to be involved in certification in any scheme to improve forest management skills (Planting, seedling) and tracking of annual forest growth (thinning and feeling) that become barriers to smallholders in achieving sustainability (Auer, 2012).

According to Meidinger et al. (2003) there are four common elements on every forest certification systems, namely the standard setting, accreditation, certification, and labeling.

- **Standard setting, created by authoritative body** such as FSC by Forest Stewardship Council, LEI by the Indonesian Ecolabelling Institute, and Indo-TLAS by the Ministry of Forestry of Republic of Indonesia, can be principles, criteria and indicators as guidelines are used to assess the minimum level of sustainable forest management.
- **Accreditation, conducted by Accreditation body** such as KAN (National Accreditation Committee) for mandatory system, ASI (Accreditation Services International) for FSC, and The Indonesian Ecolabelling Institute itself for LEI, formally recognizes that a certification/verification body is competent to carry out certification tasks.
- **Certification, conducted by FSC/LEI/Indo-TLAS accredited Certification body**, is the process by which an independent third party assesses whether the practices of an operation fulfill the established standards.

- **Labeling** is a sign or information to consumers that the products come from a well-managed forest.

In the national level, either FSC, LEI, and Indo-TLAS, involving multi-stakeholders in formulating national forest stewardship standards, eco-labeling, as well as the timber legality up to evaluate the system. Especially for schemes aimed at small-scale forest and small-medium enterprise, each system facilitate access to funding for initial costs involving donors (mostly from international donors) and intensive facilitation involving NGOs or District Forest Agency.

In development of mandatory certification, the government officially designated the District Forestry Agency (Dishutbun) as the main party that governing the filing assistance or facilitation to private forest owners groups to the central government in accordance with the coordination of assistance. Indonesia government through Ministry of Forestry in carrying out the mandatory policy conducted bilateral cooperation with UK government through DFID-Department for International Development as a donor partner and form MFP II (Multi-Stakeholder Forestry Programme) in partnership with local NGOs in providing assistance or facilitation (Setyowati, 2012). In developing the certification, Forestry agency remains an important role in facilitating the provision of seedling to help the expansion of private forest land and reconstruct of community forests distribution data (BPKH W-XI Jawa Madura, 2012). Facilitating submission process that applies to the legality mandatory system can be seen in figure 2.4.

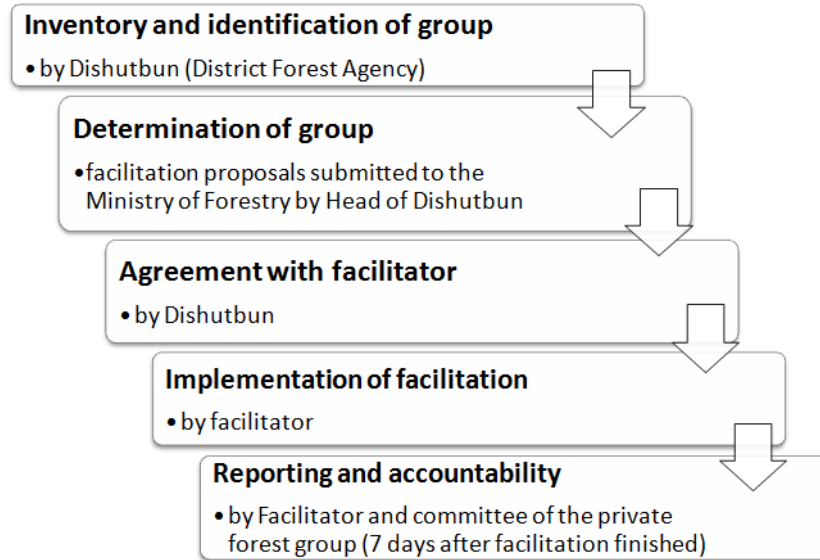


Figure 2.4. Facilitation submission process that applies on Indo-TLAS (Setyowati, 2012)

CHAPTER 3: METHODOLOGY

1.1. Research Design

This chapter describes the methodology used in this research. In general, the flow in this study will be discussed in the figure 3.1, beginning with the selection of the study area based on initial survey, primary and secondary data collection, data analysis, Result and discussion, and generalization of finding. Determination of the study area will be focused on private forest groups in Indonesia, both certified and uncertified with the respondent selection based on certain variables. Combination of semi-structured and structured interviews was used to obtain primary data. Furthermore, analysis of data uses a combination of qualitative and quantitative methods.

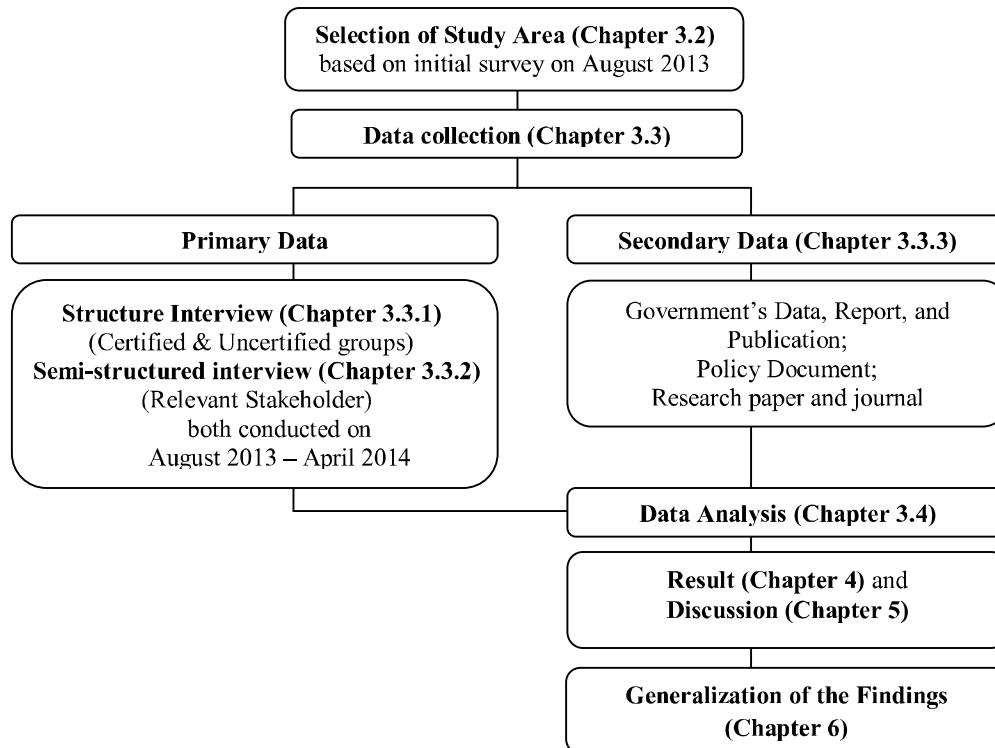


Figure 3.1. Methodology flow in this research

1.2. Selection of Study Area and Respondents

This study includes a national scale that focused on the stakeholder involved in the private forest management in Indonesia. Primary data will be obtained from private forest groups in Indonesia are certified FSC, LEI, and Indo-TLAS as affected stakeholder, as well as uncertified groups as a control. Before determining the respondents, initial survey conducted in August 2013 through informal interviews with representatives several stakeholder in Yogyakarta Province (random sampling), such as representative of private forest groups (Koperasi Wana Lestari Menoreh- KWLM, and Koperasi Wana Manunggal Lestari-KWML), District Forest Agency from Gunung Kidul District, and local NGOs (Telapak, Arupa, and Javlec). Initial survey was useful to get an understanding of the actual condition of the certified private forests regarding physical, social, cultural and economic conditions. Moreover, the results obtained from the initial survey to determine the respondents from certified group by three important variables, namely the type certification obtained by group, location (province), and companion NGOs (institutions). If there are groups which have similarities in these three variables, it will be assumed they have same conditions and only will be selected one group as respondent. Development of a database of certified private forest groups in Indonesia until May 2013 (APPENDIX 2), obtained 42 groups (with 3 groups have 2 types of certificates, namely KWML, KHJL, and Gapoktan Jati Mustika) with the following details: 4 groups certified by FSC; 19 groups certified by LEI; 22 groups certified by Indo-TLAS. From 42 total certified groups, 85% is located on Java Island, with major distribution in Central Java and East Java. From a total of 42 certified groups obtained 21 respondents where detail information in term of type of certification and locations can be seen in table 3.1 and figure 3.2. Respondents from uncertified groups as control decided with the same number with respondents from certified group (21 groups) which scattered randomly on several locations (islands and provinces), table 3.2 and figure

3.3. Information of uncertified group obtained from several sources, such as NGOs, local governments, Forestry technical officer, other groups, and media. Group leader in each group respondent was decided as a target person to answer the questionnaire.

Tabel 3.1. Respondent's information from 21 certified groups

No	Name of Groups	Certification Types	Province	Companion Institution ⁴	Certified area (ha)	Certified member
1	KSU Taman Wijaya Rasa (KOSTAJASA)	FSC	Central Java	TFT	118.23	940
2	PT. Dipantara	FSC	D.I. Yogyakarta	TFT	90.00	126
3	Koperasi Wana Lestari Menoreh (KWLM)	FSC	D.I. Yogyakarta	Telapak	129.82	1,168
4	Koperasi Hutan Jaya Lestari (KHJL)	FSC & Indo-TLAS	Southeast Sulawesi	WWF, TFT, JAUH, Telapak	754.44	1,106
5	FKPS Selopuro	LEI	Central Java	Persepsi	262.77	403
6	Gapoktan Jati Mustika	LEI & Indo-TLAS	Central Java	Arupa	500.36	884
7	Koperasi Wana Manunggal Lestari (KWML)	LEI & Indo-TLAS	D.I. Yogyakarta	Arupa, Shorea, PKHR	815.18	681
8	UMHR Argo Bancak	LEI	East Java	Persepsi	600.00	4,000
9	Koperasi Hutan Mas	Indo-TLAS	North Sumatera	SSSPS	352.87	22
10	Comlog Giri Mukti Wana Tirta (CGMWT)	Indo-TLAS	Lampung	Telapak	225.30	233
11	Kelompok Tani Sejahtera	Indo-TLAS	West Java	IDEAS	40.00	203
12	APHR Wonosobo	Indo-TLAS	Central Java	Arupa	1,228.65	4,385
13	APHR Gawe Makmur	Indo-TLAS	Central Java	Persepsi	349.23	600
14	UMHR Wono Lestari	Indo-TLAS	D.I. Yogyakarta	Arupa	786.54	400
15	Koperasi Hutan Sumber Wilis	Indo-TLAS	East Java	Telapak	450.00	54
16	Gapoktan Sukamaju	Indo-TLAS	East Java	Latin	429.00	517
17	APHR Panca Mulya Lestari	Indo-TLAS	East Java	Javlec	527.57	300
18	FMU Enggal Mulyo	Indo-TLAS	East Java	Persepsi	1,033.00	1,180
19	APKAR Bulukumba	Indo-TLAS	South Sulawesi	SCF	304.25	471
20	Koperasi Hutan Jati Muna	Indo-TLAS	Southeast Sulawesi	SCF	167.58	450
21	KSU APIK	Indo-TLAS	Bali	Wisnu, Satin	72.40	187
Total					8,009	18,310

Sources: (FSC, 2013; LEI, 2014; MoF, 2013)

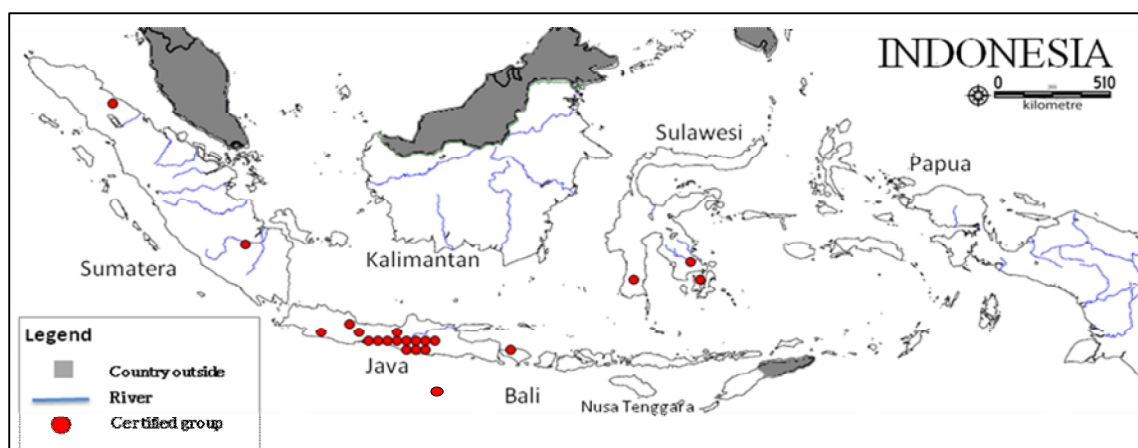


Figure 3.2. Location of respondents from certified group

⁴ whole stands for the name of companion institution can be seen in on page xi

Tabel 3.2. Respondent information from 21 uncertified groups

No	Group's name	Location (Island, Province, District)	Total area (ha)	Total member (person)
1	Private Forest Group "a"	Sumatera, Aceh (N.A.D), Aceh	118.23	255
2	Private Forest Group "b"	Sumatera, Bangka Belitung, Belitung Timur	90.00	100
3	Private Forest Group "c"	Sumatera, West Sumatera, Agam	129.82	379
4	Private Forest Group "d"	Sumatera, Lampung, Lampung tengah	325.00	550
5	Private Forest Group "e"	Java, Banten, Cipanas	50.00	303
6	Private Forest Group "f"	Java, West Java, Cirebon	25.00	68
7	Private Forest Group "g"	Java, West Java, Cianjur	75.00	98
8	Private Forest Group "h"	Java, West Java, Sukabumi	20.00	30
9	Private Forest Group "i"	Java, Central Java, Batang	359.00	550
10	Private Forest Group "j"	Java, Central Java, Salatiga	225.30	504
11	Private Forest Group "k"	Java, Central Java, Semarang	40.00	174
12	Private Forest Group "l"	Java, East Java, Ponorogo	128.65	600
13	Private Forest Group "m"	Java, East Java, Malang	96.00	500
14	Private Forest Group "n"	Java, East Java, Madura	78.60	97
15	Private Forest Group "o"	Bali, Bali, Bangli	250.00	354
16	Private Forest Group "p"	Kalimantan, East Kalimantan, Kutai Kartanegara	155.00	517
17	Private Forest Group "q"	Kalimantan, South Kalimantan, Tanah Laut	89.55	98
18	Private Forest Group "r"	Sulawesi, North Sulawesi, Sangie	103.00	459
19	Private Forest Group "s"	Sulawesi, South Sulawesi, Maros	304.25	780
20	Private Forest Group "t"	Sulawesi, South Sulawesi, Sanggiringan	67.58	80
21	Private Forest Group "u"	Nusa Tenggara, NTB, Lombok Tengah	95.30	520
Total			2,825	7,016

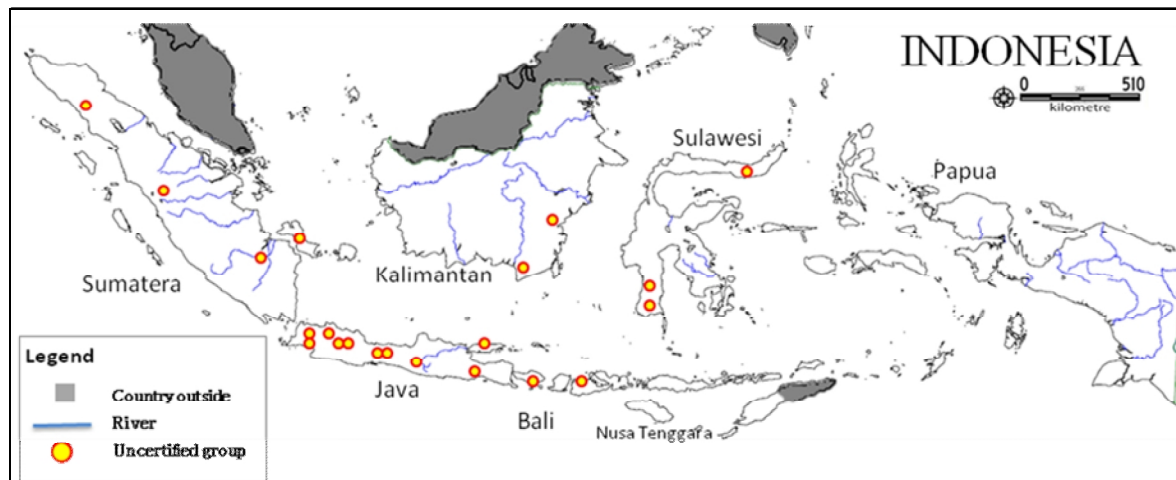


Figure 3.3. Location of respondents from uncertified group

1.3. Data collection

Within the study there were two stages of data collection: the primary and secondary data collection stages. To collect primary data, semi-structured interview, and structure-interviewed 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) Structured Interview

Structured interviews with questionnaire used in this research to support quantitative methods, especially respondents from private forests groups. The questionnaire contains some basic information related to the group, information on training, facilitation, and subsidies obtained by group, information about the certificate either voluntary or mandatory scheme that earned the group, information about the benefits and barriers of certification scheme, and information about forest management in the respondent group, details can be seen in APPENDIX 3. Questionnaire was addressed to the leader of the each respondent

2) Semi-Structure Interview

Semi-structure interviews were conducted specific for interview relevant stakeholders that involved in certification system in Private Forest, such as leader of respondents group itself, NGOs, Local government, technical officer, industry, and academia, tabel 3.3. These interviews consisted of some initial concepts in order to find out more detailed information concerning stakeholder's rules, experiences, and collaboration in certification system (FSC, LEI, and Indo-TLAS) implementation in the private forest.

Tabel 3.3. List of representative respondents from external stakeholder

List of external stakeholder's representative	Total respondents	Notes
Ministry of Forestry of Indonesia	2	on BUK Department
MFP II	1	
Dishutbun (District Forest Agency)	4	Gunung Kidul District, Maros District, Sangie District, Ciamis District
Litbang (Forest research and development Agency)	2	Makasar region and Manado region
Forest technical officer	4	Belitung timur district, Maros District, Sangie District, Lombok tengah District
Academia	1	Gadjah Mada University
Local NGOs	5	Arupa, Shorea, Telapak, Javlec, IDEAS
International NGOs	1	TFT
Local Industry	2	in Cianjur District, and Yogyakarta Prov.
Export oriented industry	1	PT. Djawa Furni, Yogyakarta

3) Literature review and secondary data collection

Literature reviews were carried out to find, learn and compare the existing the FSC, LEI, and Indo-TLAS implementation in the private forest with previous scientific articles to complement the initial survey and interviews. These articles were also useful in formulating the conceptual framework within this study, namely the concept of Multi stakeholder processes, Forest certification for small scale forest, 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 NGOs, Ministry of Forestry, Local Forest Agency, and research journal.

1.4. Data Analysis

The combination of quantitative and qualitative methods used in this research. Mostly quantitative data using a scoring system, including:

- Data on facilitation and intensity that was obtained by respondent groups will be analyzed by a bar chart to see frequency.

- Data on forest management in respondent groups will be analyzed by scoring system from 1-5. 1 for none, 2 for less, 3 for moderate, 4 for good, 5 for very good. Aspects analyzed following the standard responsible forest planted by the FAO (2006) where according to Stewart et al. (2003), forest certification is increasingly recognized by consumers and governments as an important tool for identifying responsible forest management. On FAO, 2006 there are 5 aspect that can be assessed, namely Institutional role, Strategic and economic planning, Stakeholder relation, Learning and research, and Operational planning and management. On each aspect there are 5 sub-aspects.
- Data on barriers and benefits of certification obtained by respondent groups will be analyzed by scoring system from 0-2. For Barriers data: 0 for had no influence, 1 for bad, and 2 very bad. For opportunity data: 0 for had no influence, 1 for good, and 2 very good.

For data analysis using scoring system, the average score will be compared and further analyzed with SPSS software, the T-test with a significance of less than 0.1 (because the number of respondents is too small, only 21 groups of certified and uncertified 21 from group). The qualitative data obtained from semi-structured interviews with representatives of some relevant stakeholders such as the leader of respondent groups, NGOs, local governments, local forest agencies, academics, and timber processing industries will be summarized through analysis of tree problems.

CHAPTER IV: RESULT

In this chapter will be discussed all of the findings based on primary data collection in the field. The findings will be divided based on the research questions, including:

4.1. Stakeholders and their role in private forest certification in Indonesia

This sub-chapter will be discussed in detail about who the real external stakeholders involved in the field, particularly in providing support to private forest management, and involvement in private forest certification system in Indonesia. Based on the results of questionnaires to 42 respondents (21 respondents from certified private forest groups and 21 groups from uncertified private forest groups), obtained the data in figure 4.1 shows the percentage of total respondent which received facilitation from external stakeholders, such as government and other stakeholders. While figure 4.2 shows the intensity of facilitation given, the timing of the intensity scale started from very often (once per week) to very seldom scale (no facilitation). According to both figure, respondents from uncertified groups (blue color) answered that 71% or 15 respondents get facilitation from District Forest Agency (Dishutbun) with the intensity of facilitation only once per several month (unfixed schedule) for 48% or 10 respondents. For 29% or 6 respondents said have not get facilitation in any form of external stakeholders. Respondents from the certified group (red color) said that external stakeholder involved 100% or 21 respondents get external facilitation which NGOs are in full party to provide facilitation to all respondents, and 81% or 17 respondents also get facilitation of District Forest Agency (Dishutbun). 71% or 15 respondents get facilitation with intensity once a month even 19% or 4 respondents get facilitation once a week. According to all respondents, academia and local industry involved only for below 15% respondents, although slightly increased academic involvement to 29% or 6 respondents from

the certified group. Especially for respondents from certified group, this questionnaire gives an overview of the condition post the group get a certificate (the current condition).

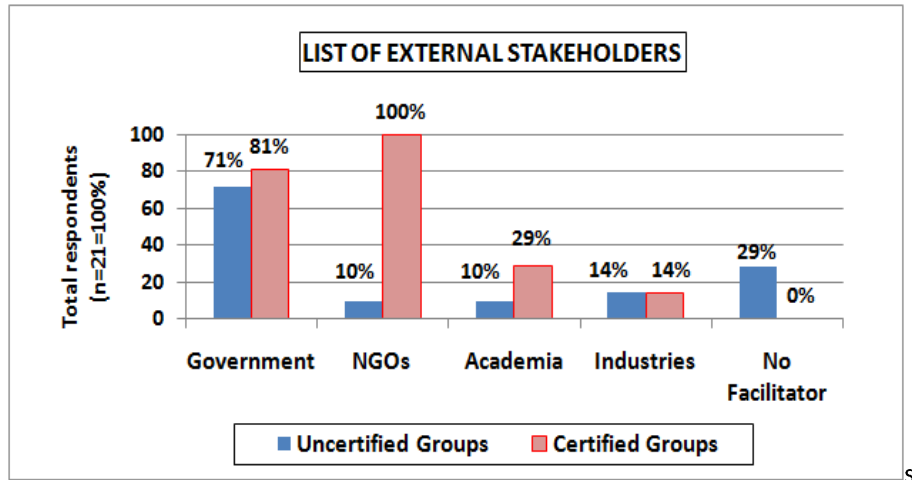


Figure 4.1. Comparison of list external stakeholder support on certified groups (n=21) and uncertified groups (n=21)

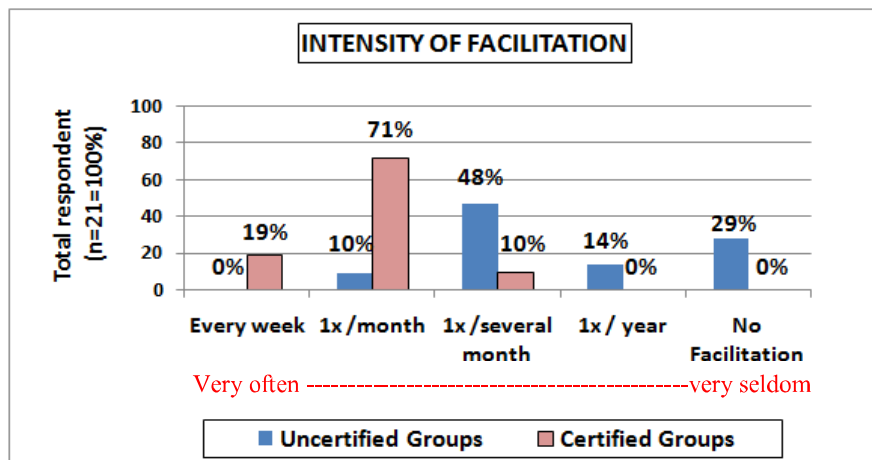


Figure 4.2. Intensity of facilitation on certified groups (n=21) and uncertified groups (n=21)

Furthermore, in table 4.1. showed the involvement of external stakeholders in each certification process started from initial socialization until certified timber selling. 100% or 21 respondents from certified group answered that NGOs continue to provide support in every process while the government through District Forest Agency active to provide support

only in the early stages of initial socialization (67% or 14 respondents only from certified group by LEI and Indo-TLAS). In the next stage, District Forest Agency's role continues to decline even in the stages of certified timber sales to industry only at 19% or 4 respondents were involved. Seen also in some stages, there is the role of Academia involved although only at 10% or 2 respondents. Academia itself is an organization PKHR (Pusat Kajian Hutan Rakyat) from the University of Gajah Mada, under Department of forestry who actively provide assistance in two private forest owner groups, namely KWML on Gunung Kidul District, Yogyakarta, and FKPS Selopuro (Wonosobo District, Central Java). According to information from representative Gunung Kidul District Forest Agency in Yogyakarta Province, roles of academia very important in supporting the District Forest Agency to actively facilitate pre-or post-certification on private forest owner groups in Yogyakarta province. Several industries that involved is partners several private forest group before certified, such as the example in KSU APIK on Bali Province. Limited involvement from timber industry was caused by most of industry involved is small-medium industry which have limited capacity also to provide facilitation or subsidies for initial cost. Funding support, especially for the initial certification costs only showed one group that get support funding from Ministry of Forestry (MoF), while 95% declared initial funding assistance from donor agencies (international donors or MFP II). Special to the subsidies promised by government (MoF) for Indo-TLAS system, after confirmation to staff BUK, MoF of Indonesia (Bina Usaha Kehutanan) the government said that the subsidies started in mid-2013 with a grant of 40 million rupiah or US\$ 4,000 per group. Previously for 3 years at the beginning of its application, funding support is still coordinated by MFP II in the initial certification cost assistance.

Table 4.1. Percentage of stakeholder involvement in every step of certification process

Certification Process		LIST OF STAKEHOLDER					
		FACILITATION				INITIAL COST SUBSIDY	
		Government	NGO	Academia	Timber Industry	International Donor	Government
Pre-Certification	Initial Socialization	n=14 (67%)	n=21 (100 %)	n=4 (10%)	n=2 (5%)	0%	0%
	Requirement collection	n=11 (52%)	n=21 (100 %)	n=4 (10%)	0%	0%	0%
During Verification	Verification process	n=2 (5%)	n=21 (100 %)	0%	0%	n=20 (95 %)	n=2 (5%)
Post-Certification	Publication	n=9 (43%)	n=21 (100 %)	n=4 (10%)	n=2 (5%)	0%	0%
	Certified timber selling	n=8 (19%)	n=20 (95 %)	n=2 (5%)	n=8 (19%)	0%	0%

Note: respondents are certified groups, n=21

The next results will be explained about the real flow of stakeholder roles on each voluntary and mandatory certification scheme refers to the core process model (Setting up, Strategically Planning, Implementing & Managing, and also Learning - Monitoring, and Adapting) especially in facilitation, participation , and subsidy support, as well as incentives and punishments that exist in each of the certification system.

a. SLIMF scheme in the FSC certification system in Indonesia

SLIMF (Small and Low Intensity Managed Forest) scheme formed directly by the FSC international center which applicable on a national scale by made guidance document of SLIMF (FSC, 2009) developed in each country. In the general FSC certification system or specific to develop SLIMF scheme, involvement and participation of stakeholder is very high and huge scale, from the local to the international level. Following of stakeholders and role on FSC system that can be seen on figure 4.3., are:

- **ASI (Accreditation Services International)** is an independent accreditation body which accredits FSC Indonesia National Initiatives and FSC accredited certification bodies. In

the implementation in Indonesia, ASI collaborate with a number of local stakeholders, such as representative of NGOs, academia, civil societies, and industries to form an independent FSC monitoring body to monitor FSC system and SLIMF scheme on Private Forest.

- **FSC Indonesian National Initiative** as national authoritative body who setting up C&I, and planning strategically of SLIMF scheme cooperate with ASI (Accreditation Services International) and FSC accredited certification bodies in Indonesia. In its implementation, this institute in collaboration with the Indonesian government as a policy consultant (though not very active), and with several academic representatives in updating information and standards that need to be adjusted to current conditions.
- **FSC accredited certification bodies Indonesia:** as certification/verification bodies and FSC certificates issued. There are 5 institutions as certification bodies, including the Rainforest Alliance (RA), Scientific Certification Systems (SCS), Control Union Certifications BV (CU), Société Générale de Surveillance (SGS), and the Soil Association Woodmark (SA) in which each of them have different certification fee, and assessment team. In the FSC system, in addition to the assessment team there are also Re-viewer from the outsider, broad. In the field, the selection of the certification body is largely determined by the facilitator. 3 respondents from certified group by FSC, such as KWLM, KOSTAJASA, and KHJL were recommended by their NGO facilitator admitted to using the Rainforest Alliance SmartWood while the only PT. Dipantara use of PT. SCS as certification body. PT. Dipantara claimed that the fees to be paid for surveillance audits with group own money were higher than the SmartWood. FSC certification costs is the most expensive costing around US\$ 10,000 – US\$ 15,000 only for the initial audit cost and 50% - 75% from initial audit cost for annual audit or surveillance. For example, respondents from KWLM (Koperasi Wana Lestari Menoreh)

Gunung Kidul District, Yogyakarta said that total in the circulation of 5 years the cost could reach US\$ 45,000 includes US\$ 15,000 for initial cost, and surveillance fee 4 times is US\$30,000.

- **NGOs:** as partner agency of FSC National Initiative to be a main facilitator to provide intensive facilitation in order to deliver information about the FSC certification system to private forest group, help the group apply certification to certification body, and help group apply funding support for initial cost to donor. Not only International donor, such as TFT (The Forest Trust), WWF (World Wide Fund), and some local NGOs involved in this system, such as, JAUH (Jaringan Untuk Hutan) and Telapak that have strong network with International donor. NGOs have very active role as a liaison between the private forest owner groups, with FSC, certification bodies, local and central governments, donors, industry and other relevant stakeholders. Important thing showed that almost the certified groups already involved in the project developed by companion NGO for more than 1 year so attachments are secure and easy in informing a complex FSC certification. Those NGOs also that recommend group to get FSC certification. The involvement of academics, big industries or government in facilitating the FSC system directly is very low.
- **International Donor:** are those who support funding for NGO activities, and funding for initial costs to the group certification scheme. International donors are involved such as WWF, HIVOST (Netherland). Although officially donor only helps for the initial cost, but some cases it is seen that most of donors still help funding for surveillance at least for 2 years at the beginning, before the group have a stable economic benefit.
- **Certified Target Groups (Private Forest Groups and Industries):** up to May 2013 there were 4 private forests groups certified by group certification on SLIMF scheme, namely KHJL in Sulawesi (first certified in 2005), KWML, PT. Dipantara, and

KOSTAJASA in Center part of Java. Most of the groups have a structure like cooperatives consisting of a combination of several groups on village level which are NGO facilitated for cooperative formation. In the field, main problem that arises is the demand for teak wood as the main commodity KHJL in Sulawesi is now declining since 2011 due to FSC certified teak supply have been filled by KWLM and PT. Dipantara (since both groups got FSC certification). FSC certified timber industry is mostly located in Java and obviously timber industry will buy timber directly from producer in Java compared with buy timber from Sulawesi who need to spend high transportation costs.

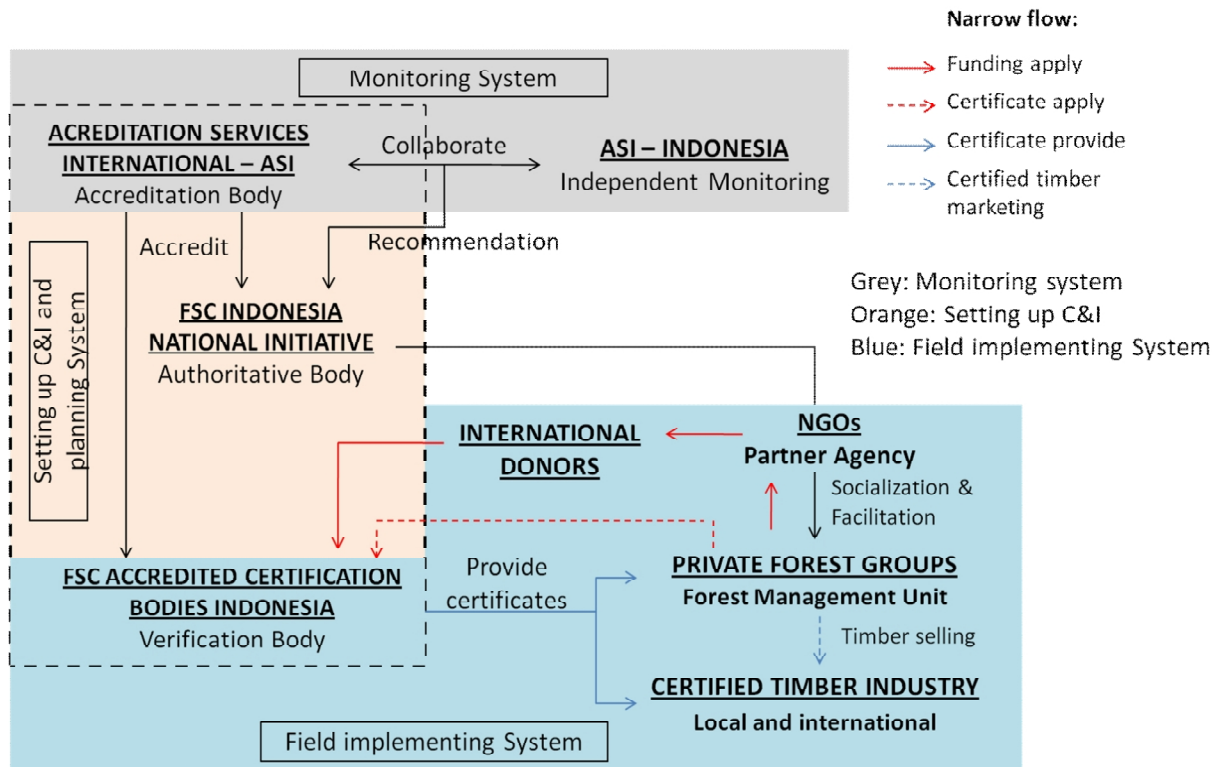


Figure 4.3. Stakeholder's roles on FSC – SLIMF certification scheme

b. Group certification in LEI PHBML certification schemes in Indonesia

PHBML certification (Sustainable Community-Based Forest Management) is a special scheme set up by LEI (The Indonesian Ecolabelling Institute) intended for both CBFM (Community-Based Forest Management) on state-owned forests and private forests.

Scope of stakeholder involvement and participation is limited only on a national scale and independently without direct government involvement.

- **The Indonesian Ecolabelling Institute:** are an authoritative body and accreditation body for LEI system. This institution are setting up criteria, indicators, verifiers, and plan strategically PHBML group certification application, design a decision-making method for the forest certification process, and accredits certification bodies. In a way, LEI collaboration with FSC develops a Joint Certification Protocol (JCP) that obliges FSC to use both the LEI and FSC criteria and indicators when conducting an assessment of a forest management operation. That matter is also the basis for the formation of C & I LEI also follows the FSC's Principles and Criteria, ISO's 14000 series, and the ITTO's criteria and indicators although the adjustment conditions in Indonesia.
- **LEI accredited certification bodies:** a certification body to assess and issue certificates PHBML LEI to target groups. There are 3 LEI certification bodies, including PT. TUV Reindland Indonesia, PT. Mutu Agung Lestari and PT. Sucofindo which has a cost of certification, and assessment team different each other. The assessment team for decision making in coordination by the Expert Panel 1 and Experts Panel 2 which comprises experts from academia observer without any re-viewer like in the FSC system. Costs incurred ranged between US\$ 7,500 – US\$ 10,000 only for initial audit cost and 50% - 75% from initial audit cost for surveillance where done once / 5 years for PHBML-LEI.
- **NGOs:** is a major partner to help provide intensive facilitation to convey information about PHBML-LEI certification system, assist the groups in applying C&I are applied in the scheme, help the group apply for certification to certification body, and help group apply for initial cost funding support to the donor. NGOs involved are local NGOs like ARuPA, PERSEPSI. In the implementation of 85% was accompanied by NGO

PERSEPSI. This trend will obviously affect the determination of the target group to be certified.

- **International Donor:** are those who assist in the NGO facilitation funding, and funding the initial costs PHBML group certification scheme. International donors are involved such as GTZ (German Technical Cooperation), DFID (Department for International Development, UK), and others. Crate FSC financing, funding which was originally restricted to the initial certification costs, it often continues because of the limited cost of the group who still have not received a significant economic benefit.
- **Certified Groups Target (Private Forest Groups and Industries):** until May 2013 there were 19 certified private forest groups and unique 95% are located in Central Java and East Java. Group selection is strongly influenced by the recommendations that accompany the NGO PERSEPSI that dominate giving the list of group which will be certified LEI. Certified industry, also largely concentrated in the central and eastern part of Java, but the difference with the FSC market, the LEI international market is not very strong. So many products that ultimately purchased the local industry with no increase in price. When in 2006-2009, LEI and FSC make cooperation incorporation certified timber export markets, but due to constraints on the phase verification technique that should combine two certifications, then the agreement is terminated. In accordance interviews with the LEI, LEI is currently focusing on national timber markets timber that carries sustainable forest management, under the coordination of “Forum Komunikasi Daerah – FKD” as coordination at the local level.
- **Forum Komunikasi Daerah - FKD:** is a combination of stakeholder at regional (provincial and district) consisting of various stakeholders of the local industry, academia, local government, local NGO representatives joined LEI auditors for monitoring of the

passage of the LEI system. This team will follow up and bridge the private forest groups with other stakeholders especially the local industry.

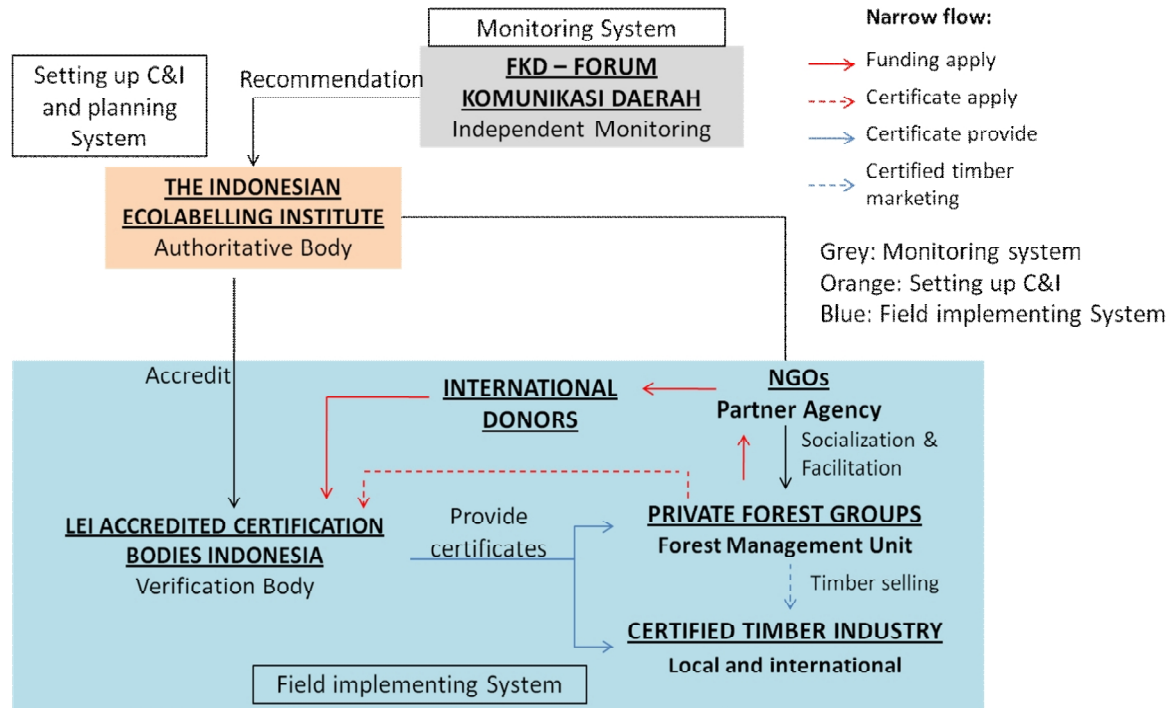


Figure 4.4. Stakeholder's roles on voluntary PHBML-LEI certification scheme

c. Group certification in the VLK certification, Indo-TLAS system in Indonesia

VLK certification group of Indo-TLAS system is a special scheme set up by the government through the Ministry of Forestry Indonesia, which is intended for forest managed by small holders including private forests. In general, group certification scheme was created by simple standard where only focusing on the legality aspect and institutional management system. In Indo-TLAS certification system which is mandatory from the government, limited coverage on a national scale but involves diverse stakeholders, figure 4.5.

- **Ministry of Forestry of Republic Indonesia (MoF):** an authoritative body, setting up C, I, & V cover by policy/regulation, and plan strategically VLK group certification application, and design a decision-making method for the forest certification process. In

the implementation, in collaboration with a multi-stakeholder with different roles and budgeted funds to subsidize the cost of initial certification to the beneficiary either VLK group certification for community forest and CoC certificates for small and medium industry. Principles and Criteria follow ISO's 14000 series despite the adjustment conditions in Indonesia.

- **KAN (Komite Akreditasi Nasional):** an independent institution as national accreditation body that accredits certification bodies / verification Indo-TLAS.
- **Indo-TLAS Accredited Verification Bodies:** a certification / verification that the assessment and issue a certificate of VLK-Indo-TLAS to target groups. There are 15 Indo-TLAS certification body, where the selection of the agency verified the private forest groups determined through the tender scheme by the donor (MFP II / MoF) which is target group already submit proposal to the donor. Costs incurred cheapest among voluntary certification system with range US\$ 3,000 – US\$ 5,000 just for the initial audit cost and 80% - 100% from initial audit cost for surveillance where do once / 2 years.
- **MFP II (Multistakeholder Forestry Programme II):** an independent body formed by the cooperation of the UK DFID (Department for International Development, United Kingdom) as the donor and the Indonesian Ministry of Forestry. MFP II on the application will be the agency that coordinates financial support assistance to private forest groups and in collaboration with local NGOs Network as a partner agency that records the target group and coordinate the provision of intensive socialization and facilitation of cooperation with the government.
- **Dishutbun (District Forest Agency) dan Local NGO network - MFP II Partner:** a partner government and MFP II in the delivery and provision of information to the group in order intensive facilitation for filing VLK group certification. In its application, the role of Dishutbun is very weak and LSM try to cover Dishutbun role in determining the

target groups and the provision of intensive facilitation Within 3 years of the passage of a group certification scheme VLK, Indo-TLAS, most of the target group is a recommendation NGO that has worked with the group prior to the formation of groups and projects related to forest community empowerment. Local NGO network MFP II as Javlec, Arupa, Shorea, SCF, Yayasan Wisnu, LATIN, SATIN, SAMANTA, and much more in the field into which the main facilitator where Dishutbun actually be complementary or more to aide in the administration. Besides these local NGOs help groups apply for group certification to the certification body, helping file a certification to help finance early donors, as well as liaison with industry (Follow the action up high).

- **Target Certified Groups (Private Forest Groups and Industries):** up to May 2013 (3 years running) there are 22 certified private forest groups by VLK, Indo-TLAS and 75% are located in Java (Central Java, East Java, and Yogyakarta) . If the industry is associated with Indo-TLAS certified through CoC certification, most are also concentrated in the central and eastern part of Java, but the difference with the FSC market, the international market is not very strong because Indo-TLAS overseas marketing are intertwined with the scheme G to G 'Government to Government "is limited only to the UK for cooperation. So many products that ultimately purchased the local industry with no increase in price. Market conditions and economic benefits of national scale certification system were experiencing difficulty of penetrating international market is still not as strong as the FSC.
- **JPIK (Jaringan Pemantau Independen Komunitas):** an independent body monitoring system of the Indo-TLAS regional scale consisting of a combination of local industry stakeholders, academia, local government, local NGO, Indo-TLAS auditor representatives, civil society.

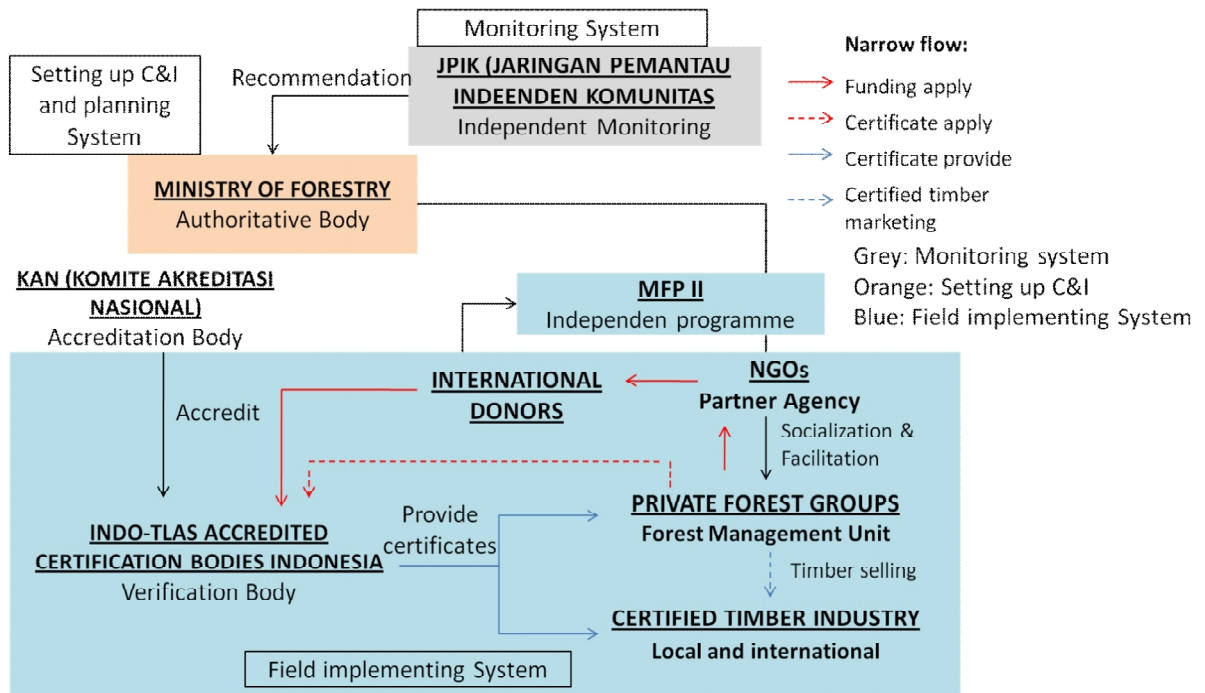


Figure 4.5. Stakeholders roles on Mandatory certification system (Indo-TLAS)

In accordance with the above results, the following summary of the condition of facilitation, participation, subsidies, incentives, and costs among the three certifications in Indonesia, can be seen on table 4.2.

Table 4.2 Facilitation, participation, subsidies, incentives, and costs among three certification systems in Indonesia

	FSC	LEI	Indo-TLAS
FACILITATION	<ul style="list-style-type: none"> - Involvement of stakeholders is limited only by NGO - Extensive guidance material covers aspects of production, economic, social, environmental - Follow up is very high, up to assist and be a liaison with the national FSC certified timber industry that already has a strong network of export to the international market 	<ul style="list-style-type: none"> - Involvement of stakeholders is limited by a NGO - Material assistance include sustainability aspects of production, ecological, and social - Follow-up conducted by NGO and an independent monitoring body "FKD" a limited scale in local 	<ul style="list-style-type: none"> - Involvement of stakeholders is more varied by local NGOs, government (Dishutbun), and academia, with the main coordination by Local NGO as network partner MFP II - Material assistance is limited to the strengthening of the institutional and legal aspects of the wood products - Follow-up is done directly by the companion agency with the level of activeness is different in each group
PARTICIPATION	<ul style="list-style-type: none"> - Involvement stakeholder in the group certification scheme SLIMF very strong and scope covers local and international scale. - Civil society, industry, academia, as monitors and observers involved in the monitoring of this system, although low government involvement 	<ul style="list-style-type: none"> - Stakeholder involvement in the PHBML-LEI scheme concentrated on a national scale - Civil society, industry, academia, observers, local governments are involved in monitoring this system with the same level of participation in FKD 	<ul style="list-style-type: none"> - Stakeholder participation in the group certification scheme VLK centered on a national scale - Civil society, industry, academia, observers, local governments are involved as observers and monitoring in this system with the same level of participation in the "JPIK"
SUBSIDY	<ul style="list-style-type: none"> - Assistance funding is limited to the initial cost of the audit, although it is possible the group may apply for next funding - In 3rd year group became independent - 100% funding support from donor 	<ul style="list-style-type: none"> - Assistance funding is limited to the initial cost of the audit, although it is possible the group may apply for next funding - 100% funding support from donor 	<ul style="list-style-type: none"> - Assistance funding is limited to the initial cost of the audit, although it is possible the group may submit a proposal for apply next funding - Over 3 years, 100% funding support from donor
INCENTIVE	<ul style="list-style-type: none"> - Market-driven, network FSC international market is very strong, so the demand for timber to certified group by FSC continues to rise and the price of timber also high. Revenue increase average ranged between 15% - 45% - Sales of wood directly into industry - Almost all of the group did not get support timber processing machine 	<ul style="list-style-type: none"> - Incentives is very low especially in increasing demand for timber and timber prices - Sales of timber from the group is still partly through intermediaries like middleman - 10% of respondents from certified group by LEI receive timber processing machine from donor 	<ul style="list-style-type: none"> - Incentives is very low especially in increasing demand for timber and timber prices - Sales of timber from the group is still partly through intermediaries like middleman - 15% of respondents from certified group by Indo-TLAS receive timber processing machine from donor
PUNISHMENT	<p>There is no punishment for the voluntary system. There are only a certificate freeze for 2 months if the annual audit / surveillance cannot complete its major fault</p>	<p>There is no punishment for the voluntary system. There are only a certificate freeze for 2 months if the annual audit / surveillance cannot complete its major fault</p>	<p>Although mandatory system but still there is no punishment, there are only a certificate freeze for 2 months if the annual audit / surveillance cannot complete its major fault</p>

4.1. Facilities for private forest groups (small-scale forestry)

One of the main problem happen while promoting group certification for private forest owners in Indonesia is limited information about group target especially that will be provided intensive facilitation. The lack of data collection conducted Dishutbun as coordinator of government in the private forest area is one of the reasons. In an effort to solve the problem and strengthen the local institutional, some parties such as NGOs have begun to give facilitation and assistance, especially in the 2000s, by doing various communities forest empowerment projects. At the beginning of the project, usually NGOs support by formatting a groups or merging existing local farmer group in every sub-villages or villages became a bigger group in form of size, number of members, and the coverage area. Usually the bigger groups facilitated by NGO itself will be promoted to get the incentives facilitation for forest certification system. If connected to figure 4.6, there are 3 cases of formation of private forest owners groups.

- Case 1: the owner of the land has formed independently groups with a coverage area that includes a combination of several villages / districts. Then, group requesting assistance from a NGO given a briefing in order to follow the certification system. This condition is extremely rare, only 1 of the total respondents from FSC certified group, namely PT. Dipantara, and one of Indo-TLAS certified group, namely KSU APIK.
- Case 2: NGOs directly was forming a group from individuals private forest owners in the coverage area per village or a combination of several villages / districts and continued with the intensive assistance to members about certification system.
- Case 3: NGOs try to merge existing small groups in each sub-village or village with a larger organization can be Cooperative, farmer groups, farmer groups combined, or association. Shape formation like this is common in respondents from the certified group. Then ultimately these companion NGOs will provide recommendations to the group to

get socialization from government or by several NGOs and continue to get intensive facilitation for certification system.

On the other hand, the determination of area that received facilitation from NGOs typically concentrated in areas with highly dominance of private forest land due to the physical conditions of the environment or government intervention for developed model of private forest area in several District especially in Java Island, figure 4.7. Some locations become the basis of the dominance of the wood, such as: Gunung Kidul, Klaten, Wonogiri, Pacitan (dominance teak); Malang, Banjar Sari, Purwokerto (Sengon dominance), or in the area of Muna, and southern Sulawesi (dominance teak). The involvement of external stakeholders will be higher for group formation and administration of projects for the group in the dominant area of the private forest land. It can be seen from the deployment of respondent from certified group.

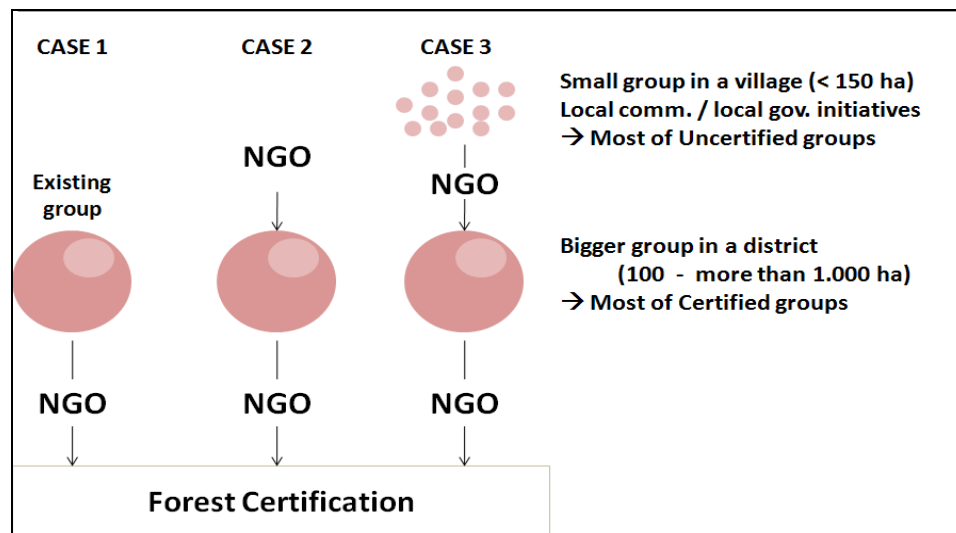


Figure 4.6. Group formation within certification system

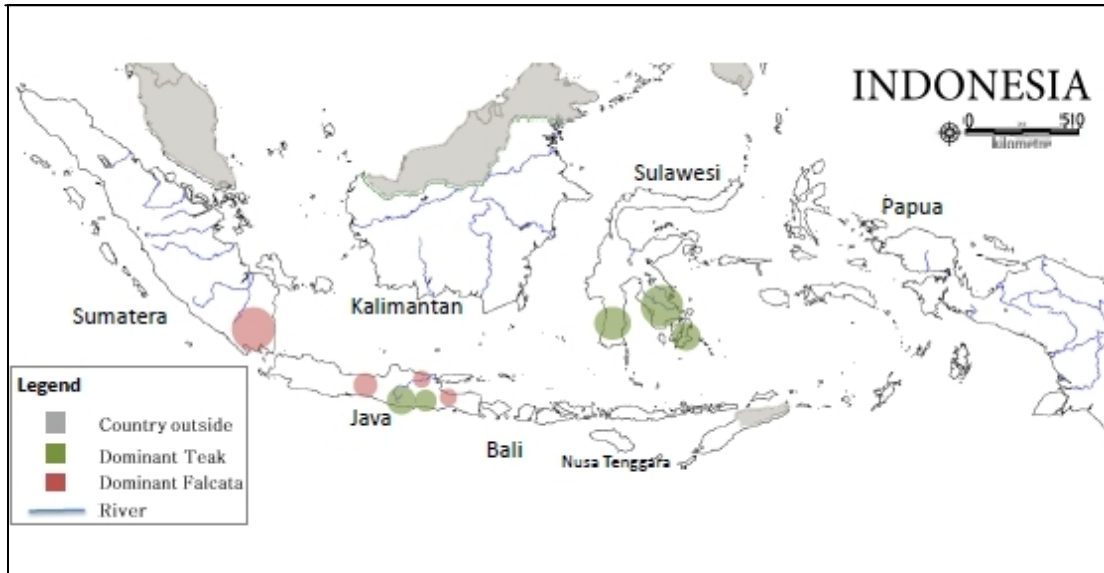


Figure 4.7. Map of dominated private forest land area in Indonesia
 (note: size of the circle describe of scale of area per District or province)

The next most important stages in the proposed certification scheme for smallholders is on intensive facilitation or training in an effort to meet the certification requirements in accordance with the principles, criteria and indicators for sustainable forest management and timber legality. In figure 4.8 it can be seen that through the assistance/facilitation received by the respondent from a certified group contained additional information related to institutional strengthening, technical forest management, administrative, legal, and timber market conditions both locally and internationally. Almost all of the respondents were certified group said before the assistance from NGO, they do not know clearly about the formation of group work plan related to forest management, the absence of complete data collection distribution members, mapping, calculating the potential of wood in their group, as well as access to timber industry is very limited. Lack of information has also been experienced by respondents from uncertified group as a control. The condition from uncertified group mostly the groups are still limited to get information related to asset inventory of the group and

timber market conditions. Although in figure 4.8, the respondents from uncertified groups said receiving technical training in forest management, but the actual training is limited to the delivery of the theory in the absence of direct implementation in the field. In addition to facilitating, subsidizing from outsiders is limited to the distribution of free tree seedlings only from the government (through Dishutbun) while funding assistance in the form of farm loans or soft loans from the government or from other parties are still rare, figure 4.9. External funding 100% of the respondents from certified group received subsidies for initial cost of certification audit.

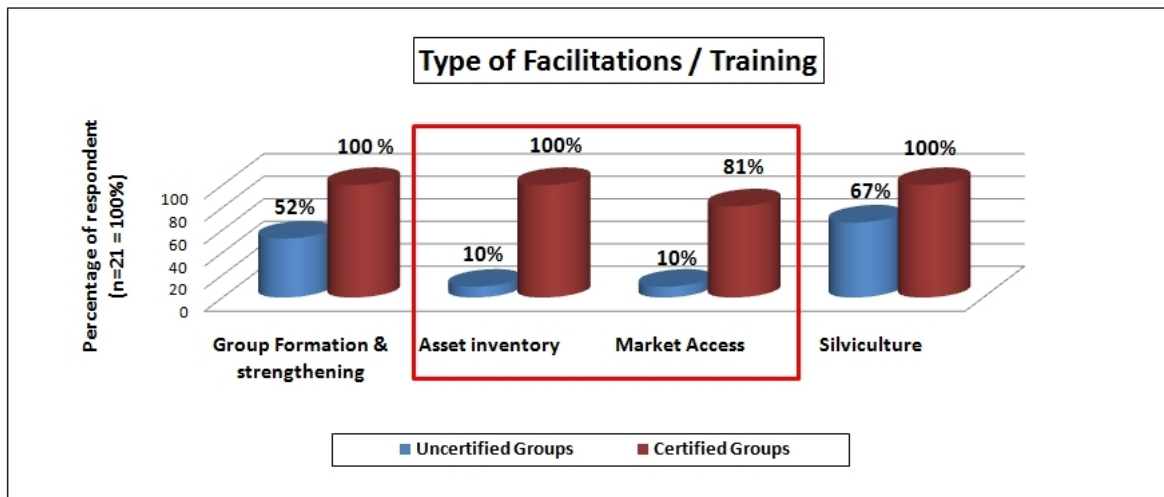


Figure 4.8. List of facilitations provided by external stakeholder (note: asset inventory and market access are most significant for certified group)

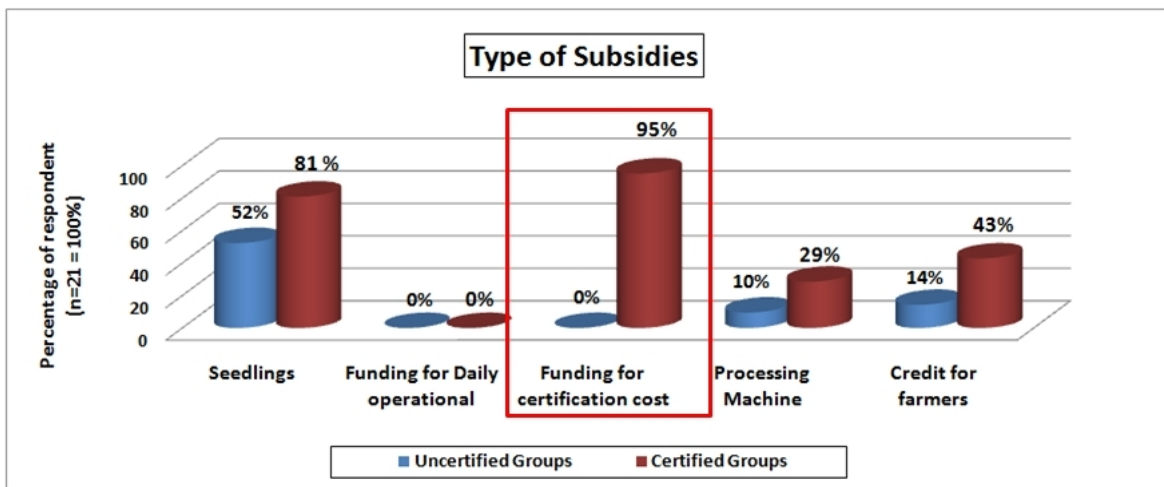


Figure 4.9. List of subsidies provided by external stakeholder (note: funding for initial cost is significant for certified group)

Next, I will focus more deeply showed about the assistance given in the form of training in the part of intensive facilitation on certification system. There are fundamental differences especially material of training received by the respondents was certified FSC, LEI, and Indo-TLAS. In table 4.3 explains that there are five main training received by the respondents, namely training on institutional strengthening, technical forest management, asset inventory group, chain of custody, timber market access, and environmental conservation. Each types of training has several sections that can be compared by respondent certified FSC, LEI, and Indo-TLAS. Respondents were certified by the FSC receives fuller discussion of training given, while the Indo-TLAS receive training with incomplete discussion. This is clearly influenced by the requirements of each system certification obtained by reference to the principles, criteria and indicators that exist in each of the system. Mandatory systems only focus to the timber legality with the provision of material assistance in the form of:

- Documenting the ownership documents and document timber transport
- Participatory mapping that produces a sketch or map of the area that contains the group managed to layout, position coordinates, the boundaries of the area of the group, as well as generates the potential distribution of forest resources of each group.
- Inventory of potential yield potential tree stands in a group, the formation of regulation through the measurement results and the presence of annual allowable cut, planting plan, maintenance until harvest.

Table 4.3 List of specific material of training received by certified group respondents

Types of Training	Respondents from Certified group		
	FSC	LEI	Indo-TLAS
A. Institutional Strengthening			
- Strengthening the group's vision and mission	O	O	O
- Formation of group work plan	O	O	O
- Establishment of Cooperative	O	Δ	X
- Structuring financial administration group	O	Δ	X
B. Technical Forest Management and Land Conservation			
- Cultivation of nursery	Δ	Δ	Δ
- Silviculture Technique	O	O	O
- High Conservation Value Forest (HCVF)	O	O	X
- Inventory endangered species (flora fauna)	O	O	X
C. Inventory Asset group			
- Mapping distribution of member land	O	O	O
- Mapping conservation area	O	O	X
- Invent member tree asset	O	O	O
- Calculating AP and AAC	O	O	Δ
D. Chain of Custody			
- Tree labelling	O	O	O
- Timber labelling	O	O	O
- Administration of Landownership	Δ	Δ	O
- Administration of legality timber aspect	O	O	O
E. Timber Market Information			
- Establishment marketing strategy	O	Δ	Δ
- Determination of efficient marketing channels	O	Δ	X
- Information of certified timber industries	O	O	Δ
- Coordinating the sale of timber	O	Δ	X

Note: O : yes; Δ : maybe; X: no

4.3. Influence of certification system for management on private forest

In Sub-section 4.3 of this will be explained on the effect of certification on community forest management groups based on analysis using current indicators in the guidelines of the Responsible Planted forest management according to the FAO, 2006 and analyze the advantages - the obstacles experienced by the group certification system that is certified. According to FAO (2006) there are five aspects of the assessment of forest plants that are responsible, among others: Institutional role, strategic and economic planning, stakeholder relations, learning and research, and operational planning and management. Each

aspect there are sub-chapter (table 4.4) where to vote, use the scoring system with the details: 1: none, 2: less, 3: moderate, 4: good, 5: very good. The assessment of the each sub- aspects and analysis will be done by comparing the average value by comparing a group of certified and non-certified as in table 4.5.

Table 4.4. List of Aspect for Responsible Management of Planted Forest

Institutional role	Strategic and Economic planning	Stakeholder Relation	Learning and Research	Operational Planning and Management
Group structure	Timber harvesting planners by group	Member's meeting that organized and planned	Procurement training for members in forest management	Group asset Mapping (include conservation area)
Inventory of member's basic information	Coordinating timber sales by group	Make a Group's work plan that supports local value	Training of national & international timber market conditions	Measurement annual productivity
Documenting member's land right	Business Development Group (Credit, establishment of cooperatives)	Procurement program supports education, health, social services	External support to the group in sustainable forest management	Measurement annual allowable cut
Open external assistance	Support received certification to increase the sale value of timber	Open Dialogue	Groups develop their own programs to do research in developing forest products	Labeling (Chain of Custody)
Increased capacity by external funding	Support the provision of wood processing machines	Group was invited to seminars, workshop, national events	Procurement of research conducted by external researcher	Inventory of conservation area, protected flora and fauna

Source: (FAO, 2006)

The result in table 4.5 shows some information, including:

- Respondents from FSC certified group had an highest average value than Indo-TLAS and LEI certified groups. Forest management has been increased in five aspects. FSC certified group has stronger and independent institutional management because of the maximum support of economic benefit as a result of the increase in timber prices and timber volumes.
- Respondents from certified group by Indo-TLAS have highest average value on the stakeholder relations. It felt because of the involvement of stakeholders in the Indo-TLAS

is more diverse such as the Government, NGOs, local industry, academy, even looks the involvement of stakeholders from LEI to develop this certification. In terms of institutional look have high average score, although is not matched with lowest average score for economic planning and strategy. This situation relating to economic aspects such as direct sales to the industry, and an increase in the selling price of the wood is still not visible from the group certified by this system. This makes the dependency with the help of funding from external facilitation and stakeholder is still high

Tabel 4.5. Average score comparison between respondents for forest management

Aspect for management	Certified Groups				Uncertified groups
	FSC	LEI	Indo-TLAS	Average	
Institutional role	4,67	4,43	3,93	4.37	2.37
Strategic and Economic planning	4,22	3,40	1.44	3.02	1.40
Stakeholder Relation	3.80	3.50	4.01	3.77	2.40
Learning and Research	3.85	4.00	3.70	3.85	2.00
Operational Planning and Management	3.85	3.7	2.62	3.39	1.15

After learning condition of forest management after certified, it is important to know the opportunities and barriers felt respondents during the process after getting the certificate. Figure 4.10 shows the advantages and obstacles that is classified into 4 main aspects, namely socialization and facilitation, certification costs and funding, publications, and access to certified timber market.

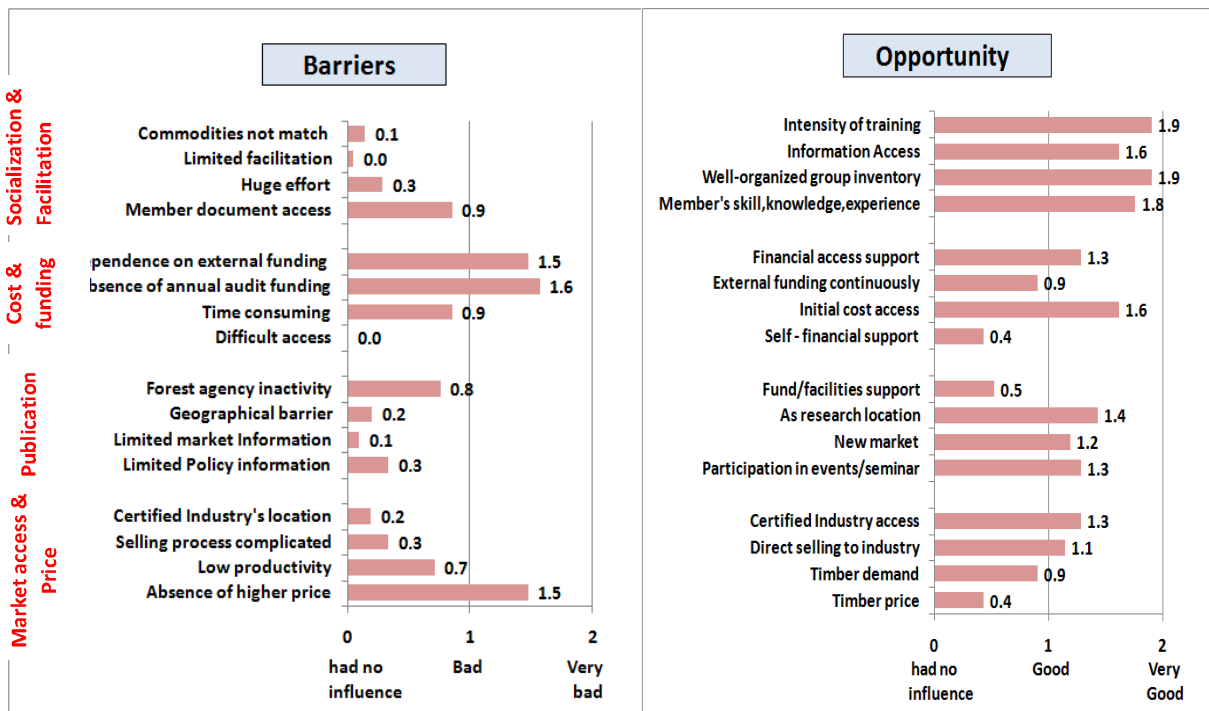


Figure 4.10. Average score for barrier and opportunities received by certified group's respondents

Discussion of their respective advantages and barriers based on the results of the questionnaire respondents were certified as in figure 4.9 will be discussed one by one as follows:

a. Socialization and facilitation

Barriers

It is inevitable that the limited technical officer in the forestry sector and the limited capacity of the government makes information access training received by the private forest owners very limited, especially information about forest certification. For the respondents especially certified FSC and LEI with highest level requirements make group members feel the difficulty of in the beginning, but with intensive facilitation by the NGO, difficulties can be passed. Common occurrence, especially to respondents certified by Indo-TLAS is the

difficulty of giving land ownership documents and document timber transport system is a key condition of Indo-TLAS due to the lack of info forest certification system in advance so that the delivery of documents to the management group is considered dangerous. As a result, the group often consumed his time in an effort to collecting the document.

Opportunities

First facilitation in certification system for formatting larger group and also conducting intensive facilitation makes an effort for strengthening of institutions, and delivery information received by the group increased. This group is most felt in terms of data collection assets owned group so they now have a plan after planting, when the treatment period up to harvesting and sale of timber. Automatic knowledge and skills of members, especially the members of the active and primary caretaker groups increased.

b. Certification Cost and Funding support

Barriers

Although the initial certification fee to help fairly easily, but almost all groups, especially certified by LEI and Indo-TLAS still difficult in paying the cost of surveillance and re-certification as a result of lack sales. Problems on the certified timber market will be discussed in Part D, about certified timber market access. According to interviews with the respondents, there have been 2 cases of freezing certificates, are in Wonosobo who received certificates and Indo-TLAS and KT. Jati Mustika Wonosobo. The solution is re-apply new proposal for surveillance funding support to donor and both group got it. As a result of dependence with the funding support from external parties increased. The next problem that occurs is the number of groups of Indo-TLAS certified more and limited funding from donors.

Opportunities

Each certification system obviously already have budget for supporting assistance funding and initial cost to small-scale forest. Proposal submission for funding applies and will be assisted by a companion NGOs to the donor or the Ministry of Forestry (cases for Indo-TLAS). Access to assistance filing said easily. Even some respondents also got other subsidies or support such as wood processing machines and funding from donors (cases on KWML, Yogyakarta and CGMWT in Lampung) as follow-up support by external stakeholder who also acts as a liaison between the donor and groups.

c. Publication

Barriers

Barriers are seen in the publicity efforts is the lack of support from the local government to publish certified private forest group on their area. Publications usually done by the NGOs or even the central government through the Ministry of Forestry website or expo conducted at the national level (very seldom). Support local governments in making PERDA (local regulations) regarding timber sales support from certified private forest is still very low, accounting maybe only in Wonosobo District who has the support PERDA.

Opportunities

Case on group respondent certified by Indo-TLAS, they will publish at several location, such Ministry of Forestry website, Verification bodies website, contained in several articles on companion NGO website, or there is a case in Koperasi Hutan Mas that the group to be published by local radio. Publication of various parties making information dispersed to various stakeholders, especially the certified timber industry. Other opportunities are increasing number of students, local and international researchers who come into their groups to do research or study tours about sustainable forests management. Multi stakeholder

cooperation between government, private sector and research institutes produce a national timber exhibition involving parties from upstream to downstream of timber management. Since 2013 representatives certified farmer groups present and fill the stand together with other stakeholders, figure 4.11. It is said to improve networking between producers, local timber industry, and the buyers from international markets to attend the exhibition. There is increasing access to several local industries that require wood certified as experienced by KWLM.



Figure 4.11. (Left) National timber product expo on August 2013 in Jakarta and (right) one of certified group, KWML participated with show handicraft created by certified wood

d. Access to certified timber market

Barriers

Timber Market for LEI system, and Indo-TLAS system was limited. Indo-TLAS market scheme is government to government networks were still limited only has agreement with the UK (United Kingdom) until 2014. UK probably is only one of European country which located at fifth rank for country importing timber from Indonesia after China, Japan, Australia, and U.S. During this time, cooperation agreement with countries like Japan, U.S., and Australia always deadlocked. This is obviously greatly affecting the sale price of private forest certified wood, and demand for certified timber from Indo-TLAS are still very low. Likewise with the LEI system, competition with international certification systems such as FSC and PEFC obviously very difficult for the LEI certified timber sales due to lack of promotion in the international market. Only FSC-certified wood in Indonesia has a higher resale value due to the certainty of clear international markets.

Opportunities

Specialized in the discussion section of this market access, I try to compare the data between FSC LEI, and Indo-TLAS respondent. On the figure 4.12 showed that the respondents were certified by the FSC gain a more visible (with a score above 1) in terms of access to certified wood, direct sales to timber industries, accompanied by increased demand and timber price. As interviews result with respondents from group certified by FSC, there is an increase in revenue of 15-30% on the sale of certified timber. Some cases the respondents were certified LEI and Indo-TLAS there are some groups that have timber demand increases but are not matched by an increase in the price so there is no disappointment compliance with the group's initial motivation to increase the value of timber after certified.

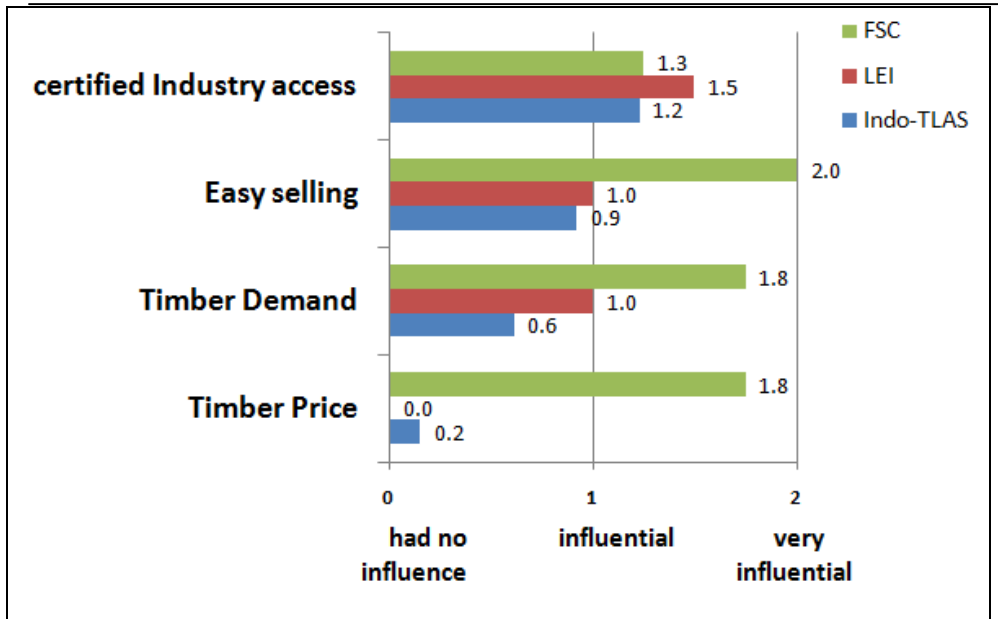


Figure 4.12. Market condition and certified timber selling comparison between FSC, LEI, and Indo-TLAS

CHAPTER V: DISCUSSION

This chapter will discuss the empirical findings of the research, linked with research questions and theoretical framework used in this study. Research questions regarding the involvement of external stakeholders and their role in private forest certification in Indonesia, the facilities provided by stakeholder support in order to improve forest management in Indonesian private forests, as well as the influence of forest certification system in private forest management, will discuss each in terms of the theory of the Multi-Stakeholder Processes (MSPs). Related to those reasons, will be discussed three main things that are founded, including:

1. Formation of Private Forest Group and Institutional Strengthening

One of important issues that occurred on private forest management in Indonesia is the absence of a professional organization that coordinates the production of planning and timber sales to direct market or to the industry and the lack of support of the external stakeholder are experts in improving the management and capacity of private forest institutions. In this regard, several local environmental NGO started to form a forest community empowerment projects since the early 2000s through the facilitation of UMHR (Private Forest Management Unit) that combines groups of small-scale timber farmer (sub-village / village scale) as a forerunner to a professional organization in Indonesian private forest. When the certification system was implemented for the voluntary certification of private forest owners, most of the NGOs recommend UMHR or private forest owner group under their facilitation to join the certification system after analyzing the potential, needs, and determination of the group. Examples of projects from NGOs and their target groups, including:

- The project of "Rancang Bangun Unit Managemen Hutan Rakyat Lestari - RBUMHRL" or Design of Sustainable Private Forest Management Unit developed by several local NGOs, such as *PKHR UGM* – Pusat Kajian Hutan Rakyat – Gajah Mada University, Arupa, and Shorea in the private forest farmers in Gunung Kidul District, Yogyakarta by forming KWML (Koperasi Wana Manunggal Lestari) as private forest cooperative in 2004 and now already certified by LEI and Indo-TLAS.
- The project of "Community Logging - COMLOG" by Local NGO – TELAPAK which developed to optimize community-based industry in central Lampung District, Lampung Province through CGWMT (Comlog Giri Mukti Wana Tani) formation and obtain a certificate of Indo-TLAS; in Kulon Progo District of Yogyakarta Province through KWLM (Koperasi Wana Lestari Menoreh) formation; in South Konawe District, Southeast Sulawesi Province through KHJL (Koperasi Hutan Jaya Lestari) formation and obtain FSC and Indo-TLAS certification.

NGO involvement in determining the target certified group obviously very important and this is one reason for the development of Indo-TLAS certification in Indonesian private forests. National certification targets that necessary to be achieved by Indo-TLAS have barriers because they lack the data collection of deployment groups, and potential private forest group coordinated by Dishutbun (District Forest Agency) as the coordinator at the local level. During the 3 years of the initial development of the Indo-TLAS system, targeting groups and intensive facilitation for groups is mostly done by local NGO as partners MFP II, such as Arupa, Shorea, Javlec, SCF, IDEAS, Yayasan Wisnu, LATIN, SATIN, SAMANTA, etc, and most of them recommending groups under theirs facilitation. While the small farmer groups in West Java and outside Java focuses on agriculture or other sectors with lack of data collection by Dishutbun obviously would hardly affordable for mandatory certification system.

Based on interviews with the Ministry of Forestry, currently MoF have just finished making a map of time series of private forests Indonesia since 2000, 2003, 2006, 2009, and 2012 (MoF, 2014). Estimating the distribution of private forests in Indonesia is done through satellite imagery with the division of certain classes. From the data obtained very different results with the data that had been there, that total private forest area in 2012 amounted to 36,399,401.95 ha where a decline from 2000 in the amount of 39, 989, 017.35 ha. While the timber productivity potential of private forest in the year 2012 to reach 1 billion m³ by the potential number of stems as much as 6, 179 799,465 wood. Obviously data are very far with MoF data held in the year 2009 through the field survey where the total area of private forest area is only 3.5 million ha. Update data collection by Ministry of Forestry in 2014 is expected to be done directly through the field inspection by Dishutbun especially in locations with the highest number of private forest land area. So expect the determination of the target group and the strengthening of the group in an effort to succeed the mandatory certification can be achieved.

2. Multi-stakeholders processes on Private Forest Certification in Indonesia

According to (Fahmi et al., 2003), to analyze the effectiveness of MSPs in a system need to be analyzed clearly in three levels in decision-making, namely the operational level, collective level, and constitutional level. Based on the analysis on several empirical findings, I will discuss each certification system on Indonesian private forest certification by three levels.

2.1. Certification group on SLIMF scheme, FSC certification system

Based on the findings, I will discuss some important issues related to the Multi-Stakeholder decision-making processes in the SLIMF- FSC certification system, including:

- a. High level of commitment on the operational, collective, and constitutional level, but the Indonesian government's involvement is limited to the voluntary system

In the SLIMF group certification scheme - FSC system, the stakeholders has involved to perform its role optimally. Not only perform its role in the operational level but also the level of collaboration as collaboration between standard setters, FSC Indonesia National Initiative Party with the ASI (FSC accreditation agency) and FSC certification agencies for the setting up and planning stages. Collaboration between NGOs companion, and FSC certified wood industry looks very strong, and has been a bridge between the producers and consumer groups. In monitoring level, cooperation between Indonesia FSC monitoring agencies, consist of independent party such as civil society, research institution, with ASI (FSC accreditation agency) is strong in monitoring the sustainability of this system. Passage of the action at the level of collaboration will clearly give a strong input to the constitutional institutions, both national and international level. Although the Indonesian government's role is limited to visible and fully voluntary system in its operational submit to independent institutions.

- b. Stakeholders involvement limited in certain areas

Concentration of stakeholders to develop a certified FSC group remains concentrated in regions with dominant private forest land such as central Java and Southeast Sulawesi. This convergence also seems to be limited due to the central location of the timber industry-management still also concentrated in Java, so the development in other areas will take high transport costs in shipping materials

- c. The Boundaries of dialogue were established clearly and high commitment to follow-up.

Because the FSC system is voluntary so it automatically selects groups of private forest owners who really have a member of management who already have committed to be ready to get involved, have an adequate timber potential, and commitment of the

external stakeholders involved is high. Common vision and mission and objectives strongly support the establishment of a clear boundary dialogue.

2.2. Group certification on PHBML scheme, LEI certification system

a. The dialogue is deadlock in operational and constitutional level

Since its formation in late 1900, PHBML scheme has constrained by the lack of funding and market uncertainty. For facilitating the necessary funding, and focus LEI when it was still fixed on financing forest certification in the forest state. As a result of determining that accompanies the group, limited NGO involved so that the scale is also limited. The lack of formation of independent certified groups LEI certified so make constitutional level cannot develop its role as a national certification agency and will be threatened with Indo-TLAS.

b. Lack of commitment to follow-up

Group certified by LEI system have problems with lack of economic benefit. The lack of certainty obvious economic benefits will greatly affect various aspects of the decision makers. Plus the national scheme has now developed a national certification with the level of compliance is mandatory (Indo-TLAS). Obviously will make the most of the stakeholders involved be focused on the mandatory system such as the government, local industry, and NGO.

2.3. Certification group, VLK, Indo-TLAS certification system

a. The boundaries of the dialogue were not clearly established at the planning stage

According to the observations, the paradigm of forest certification can fix the data collection and the potential spread of private forest after a local or regional scale involved in the certification should have reversed since the beginning. Ideally, as is the case in developed countries such as Sweden, the UK, where the certification system

began to be applied to the forests if the data collection location, ownership, assets owned by the obvious in each province or district. With the clear data, then coordination will be easier and the system will run efficiently. Now that should be addressed immediately is the collection and delivery of information to farmers' groups regarding the existence of the group forest certification mandatory for private forest owners should be clearly conveyed and kept at follow-up.

b. Not all relevant stakeholders were involved

Stakeholders who directly deal with farmers' groups are formally Dishutbun, but still many people in a district that don't know about this mandatory certification system. The involvement of local industry was also greatly influenced by the market situation. In the absence of economic advantage, obviously will be very low for involvement of industry

c. Lack of commitment to follow-up

The limited number and distribution of NGOs in Indonesia affect their movements in disseminating and facilitating community forest groups in Indonesia. Plus the lack of commitment of local governments in carrying out their duties as part of the government that makes the rules.

d. Lack of collaborative level or constitutional level agreements or action

The role of the central government through the Ministry of Forestry, Ministry of Small and medium Enterprise, and other departments in increasing the bargaining power of certified wood is essential. In the scheme of Indo-TLAS found that not all stakeholders involved to actively participate in the group certification scheme even key stakeholders such as local government of Dishutbun, Litbang that should be active socializing farmer groups to private forests, and provide recommendations given to the central government for funding assistance and help subsidize the cost of the initial

certification, it does not work optimally. His role is a lot more done by local NGO as partners MFPII. This will greatly affect the level of efficiency of the system of mandatory certification, because the targets for all groups requiring private forest owners certified to be difficult with the data collection is still minimal distribution

3. Systems or policies applied on certification system (FSC, LEI, and Indo-TLAS)

The role of private forest as an alternative to the wood raw material supply national industry is not matched by applying forest management sustainability values. Until certification system applied to private forest owners, practically there is no clear policy to encourage and support sustainable private forest management. The lack of coordination collectively with the planning of production and harvesting to be one of the main problems in the management of private forests. Plus the lack of assistance in order to improve the capacity of farmers into the problems experienced by almost all private forest owners. Through the facilitation mechanisms of the NGO or the government, then the fulfillment of the requirements that must be adapted to the criteria and indicators of sustainable forest management certification system is expected to improve the management of private forests in Indonesia. Based on the results obtained, facilitation focused initially to establish and strengthen institutional management through the cancellation of a work plan and an inventory of assets of the group. After that there is an improvement in terms of planning silviculture and timber sales strategies and plans that benefit members. Based on figure 5.5, FSC certified group has the highest value and evenly five aspects of plantation management responsible. It is heavily influenced by stakeholder involvement is high and almost equal in all fields, in particular market (industry). The independence of the FSC certified group already visible in the absence of further funding to finance surveillance average since the third year. Balance of the operational level, the collective level, up to constitutional levels of the FSC system is able

to support the independence of local institutions at the level of private forests. Although this certification system is still not able to be applied to people in all forest sites in Indonesia, because in terms of cost so expensive, and funding from donors is also limited, continuous timber demand from industry and forest sites need people who have great potential for timber with the same vision of the mission members to trying harder to meet FSC criteria and indicators.

Different situations shown in the LEI system and Indo-TLAS, where expansion on international market is very low and group dependence on financial assistance to pay the annual audit is high since they not able to pay off due to lack of significant economic benefits. Commitment to follow-up of stakeholders involved is also low, especially for mandatory certification that have limited distribution and number of NGOs on a national scale to provide intensive facilitation. NGOs involved will obviously get extra tasks as much as possible to facilitate the private forest owner groups in Indonesia so that follow-up time for more in no. Determination of the level of constitutional decisions are still deadlocked in the absence of strong cooperation among governments that support the mandatory certification and lack of promotion and the high competition in the international market which affect the LEI certification

CHAPTER VI: CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

The conclusion of this study is in general, forest certification give a good influence on forest management rather than uncertified group. Compare with other certification system, certified group by Indo-TLAS (mandatory) has limitation effect on management, it only effects on institutional and legality aspect but lack in operational/economic planning and strategy. Several things related to the above conclusions, including:

1. NGOs (Non-Governmental Organizations) are external stakeholders that have an important role in facilitating multi-stakeholder process either for better policy in voluntary systems (FSC, LEI) or mandatory (Indo-TLAS) for the private forest. On FSC certification, action or commitment on operational, collective, and constitutional level are high, compared with certification national scale (LEI and Indo-TLAS) that commitment to follow up and collaborative action within the relevant stakeholder is low and decision-making in constitutional level still deadlock.
2. The main priority of facilitation provided by the NGO and agencies in an effort to strengthen the local group's capacity is technical information from the certification system, group's asset inventory, and timber market access. Additional training or facilitation's material strongly influenced by the criteria and indicators of each system certification itself.
3. Forest management improvement can be seen on certified group with groups certified by FSC system group had the highest average score based on criteria and indicator of responsible plantation forest by FAO, 2006. Organized group asset inventory, increased member's knowledge, skills, and experience, groups more published, as well as increased attention from external stakeholders are list of benefits was given by

certified group. But on the other hand, the limitations of number and distribution of NGOs as the main facilitator, and lack of the economic benefits of national certification systems (LEI and Indo-TLAS) affect the development of forest certification system on Indonesian private forest, and create high dependency on external support by certified group.

6.2. Recommendations

After analyzing the results founded with current conditions, there several recommendations important to improve the effectiveness of the application of both voluntary certification systems (FSC and LEI) and mandatory (Indo-TLAS), including:

- a. While certified timber sales network to international markets is still limited, and the lack of regulations from the central government to ensure certified timber trading to industry, then certified timber is important to be protected by local regulation. Until now, only few local governments in District level who made regulations that support the local timber industry to obtain raw materials from certified wood owners. The certainty of demand, and support publications that starts from the local and regional level, is expected to help spread information on the certification system to various regions in Indonesia.
- b. Special to the mandatory system (Indo-TLAS), required the strengthening and empowerment of local external stakeholders consisting of local government, environmental NGOs, and local academics who work together to improve a few things, such as updating the data distribution of private forests in the local and regional levels, and determination the target of certified group, as well as cooperation in assisting the establishment of network of timber trade from producer to consumer. NGOs, as the most active stakeholder in facilitating decision-making in forest

certification system in the Indonesian private forest, can facilitate the strengthening of the local stakeholders.

In addition, after seeing some of the weaknesses in this study, is expected to further research can include such things as:

- a. Analysis of certification system (voluntary and mandatory) on a national scale to the certified and uncertified groups is necessary and important to be continued because there is increase in the number of certified group. From total 42 groups certified in May 2013 now in May 2014 increase become 95 groups where a significant increase occurred in the Indo-TLAS system into 72 groups certified (MoF, 2014). It can be assumed that if there is no profitable market for certified group by Indo-TLAS will result in the independence group itself is far from successful and dependence on external stakeholders will continue to run.
- b. The trend of increased involvement of local NGOs in providing facilitation and influencing decision-making in the private forest management will be interesting to be studied further. Most of respondents said that for running forest management on their groups is greatly influenced by the strategy given by the companion institution (mostly by local NGOs). Empowerment of local NGOs can also associate with the formation in the cooperation among local external stakeholders such as Dishutbun (District Forest Agency), local government (PEMDA), local academics, and local industry that will create local empowerment to endorse an independent private forest management by starting in local scale.

REFERENCES

- Auer, M. R. (2012). Group Forest Certification for Smallholders in Vietnam: An Early Test and Future Prospects. *Human Ecology*, 40, 5–14. doi:10.1007/s10745-011-9451-6
- Awang, S. A. (2005). Konstruksi Pengembangan Hutan Rakyat di Indonesia. In S. A. H., T. A. Prayitno, S. Sunarta, M. N. Rofii, R. Pujiarti, & W. D. Nugroho (Eds.), *Seminar Nasional: Pengembangan Pengelolaan dan Pemanfaatan Hasil Hutan di Indonesia*. Yogyakarta: Jurusan Teknologi Hasil Hutan, Fakultas Kehutanan Universitas Gadjah Mada.
- Awang, S. A., Wiyono, E. B., & Sadiyo, S. (2007). *Unit Manajemen Hutan Rakyat: Proses Konstruksi Pengetahuan Lokal*. Sleman: Banyumili Art Network.
- BPKH W-XI Jawa Madura. (2012). *Potret Hutan Jawa -Madura. Vasa*. Yogyakarta. Retrieved from <http://www.bpkhjogja.net/Dokumen/PotretHutanJawaMadura.pdf>
- BPS. (2003). *Potensi Hutan Rakyat Indonesia 2003*. Jakarta. Retrieved from http://www.dephut.go.id/INFORMASI/BUKU2/PHRI_03/PHRI_03.htm
- Dharmawan, A. H., Nugroho, B., Kartodihardjo, H., Kolopaking, L. M., & Boer, R. (2012). *SVLK, Jalan Menuju REDD+* (Edisi Pert.). Forest Governance and Multistakeholder Forestry Programme. Retrieved from http://kehati.or.id/mfp2/wp-content/uploads/SVLK_Jalan_Menuju_REDD.pdf
- Eba'a, A. R., & Simula, M. (2002). *Forest Certification: Tending challenges for tropical timber. ITTO Technical Series no. 19*. Yokohama, Japan.
- Elliott, C. (2000a). *Forest Certification A Policy Perspective* (p. 130p.). Bogor, Indonesia: Center for International Forestry Research (CIFOR).
- Elliott, C. (2000b). *Forest Certification in Indonesia*. Bogor, Indonesia: Center for International Forestry Research (CIFOR).
- Fahmi, E., Zakaria, R. Y., Kartodihardjo, H., & Wahono, F. (2003). *Analysis of Multistakeholder Forestry Processes In Indonesia* (Vol. 1). Yogyakarta.
- FAO. (2009). *Indonesia Forestry Outlook Study* (No. Working Paper No. APFSOS II/WP/2009/13). Bangkok. Retrieved from <http://www.fao.org/docrep/014/am608e/am608e00.pdf>
- FAO. (2010). *Global Forest Resource Assessment 2010-main report* (No. FAO Forestry Paper No. 163). Rome. Retrieved from www.fao.org/docrep/013/i1757e/i1757e00.htm.
- FAO. (2012). *State of the World's Forests 2012*. Rome: Food and Agriculture Organization of the United Nations. Retrieved from <http://www.fao.org/docrep/016/i3010e/i3010e.pdf>
- Faysse, N. (2006). Trouble on the way: An analysis of the challenges faced by multi-stakeholder platform. *Natural Resources Forum* 30, 219–229.

- Fernholz, K., & Kraxner, F. (2012). *10 Certified forest products markets, 2011-2012* (No. 30) (pp. 107 – 116). United Nations, New York and Geneva.
- FSC. (2009). *Forest Stewardship Council FSC Guidance Document: Guidance on the Interpretation of FSC Principles and Criteria to Take Account of Small Scale and Low Intensity, FSC-GUI-60-001 V1-0 EN* (Vol. 49, pp. 1–47). Germany. Retrieved from <http://ic.fsc.org/download.fsc-gui-60-001-v1-0-en-slimf-interpretation-of-fsc-principles-and-criteria.a-471.pdf>
- FSC. (2013). *Global FSC certificates : type and distribution*. Bonn, Germany.
- Gilmour, D. A., Durst, P. B., & Shono, K. (2007). *REACHING CONSENSUS Multi-stakeholder processes in forestry: experiences from the Aia-Pacific region*.
- Harada, K., & Wiyono. (2013). Certification of a Community-based Forest Enterprise for Improving Institutional Management and Household Income: A Case from Southeast Sulawesi, Indonesia. *Small-Scale Forestry*. doi:10.1007/s11842-013-9240-8
- Harrison, S., Herbohn, J., & Niskanen, A. (2002). Non-industrial, Smallholder, Small-scale and Family Forestry: What's in a Name? *Small-Scale Forest Economics, Management and Policy*, 1(1), 1–11. Retrieved from <http://www.springerlink.com/index/68M1416VQ527284Q.pdf>
- Hemmati, M. (2002). *Milti-stakeholder Processes for Governance and Sustainability: Beyond Deadlock and Conflict*. London, United Kingdom: Earthscan Publications Ltd.
- Hirsch, F., Korotkov, A., & Wilnhammer, M. (2007). Private Forest Ownership in Europe. In A. Perlis (Ed.), *UNASYLVA, An International Journal of Forestry and Forest Industries*. Rome: Food and Agriculture Organization of the United Nations. doi:ISSN: 00416436
- Indrarto, S. (2009). Clustering industri kayu berbasis hutan rakyat, 9–14. Retrieved from <http://bptaciamis.dephut.go.id/publikasi/file/02>. Soesilo Indrarto.pdf
- ITTO. (2011a). *Annual Review and Assessment of the world timber situation 2011*. Yokohama, Japan: International Tropical Timber Organization.
- ITTO. (2011b). *Annual Review and Assessment of the World Timber Situation*. Yokohama, Japan: International Tropical Timber Organization. Retrieved from <http://www.itto.int/>
- Jurgens, E. (2006). *Proses Pembelajaran (Learning Lessons) Promosi Sertifikasi Hutan dan Pengendalian Penebangan Liar di Indonesia*. Bogor, Indonesia: Center for International Forestry Research (CIFOR)..
- Kaban, M. S. (2005). *Prosiding Seminar Nasional “Pengembangan Pengelolaan dan Pemanfaatan Hasil Hutan Rakyat di Indonesia.” Prosiding Seminar Nasional “Pengembangan Pengelolaan dan Pemanfaatan Hasil Hutan Rakyat di Indonesia.”* Yogyakarta: Jurusan Teknologi Hasil Hutan, Fakultas Kehutanan Universitas Gadjah Mada.

- Klingberg, T. (2003). Certification of Forestry : A Small-scale Forester Perspective. *Small-Scale Forest Economics, Management and Policy*, 2(3), 409–421.
- LEI. (2014). Indonesian Ecolabel. Retrieved May 10, 2014, from <http://www.lei.or.id/sertifikasi-phbml>
- Meidinger, E., Elliot, C., & Oesten, G. (2003). *Social and Political Dimension of Forest Certification. Social and Political Dimensions of Forest Certification* (pp. 3–25). Remangen-Oberwinter, Germany: Dr. N. Kessel.
- MoF. (2009). *Forestry Statistic of Indonesia 2009*. Jakarta. Retrieved from http://www.dephut.go.id/uploads/files/stat09_coverdaksi.pdf
- MoF. (2012). *Forestry Statistics of Indonesia 2011*. Jakarta: Ministry of Forestry. Retrieved from http://www.dephut.go.id/uploads/files/BUKU Statistik Juli 2012_terbaru.pdf
- MoF. (2014). *Update Hutan Rakyat Indonesia*. Retrieved from personal information of San Afri Awang as Staf Ahli Kemhut Bidang Hubungan Antar Lembaga, Ministry of Forestry of Republic of Indonesia
- Ota, I. (2007). A Forest Owners' Cooperative in Japan: Obtaining Benefits of Certification for Small-scale Forests. *UNASYLVA, An International Journal of Forestry and Forest Industries*, 58(228), 64–66.
- Setyowati, A. B. (2012). *Modul Pelatihan Pendampingan SVLK di Hutan Rakyat, Hutan Desa, dan HKM*. Jakarta: Multistakeholder Forestry Programme.
- Sianturi, A., & Subarudi. (2008). *Technical Report No.8 INFORMASI PASAR: Standard Produk Kayu, Persyaratan Mutu dan Peraturan Impor di Negara-negara Tujuan Ekspor Produk Kayu Indonesia*. Jakarta, Indonesia: ITTO PROJECT PD 286/04 Rev.1 (I), Indonesian Sawmill and Woodworking Association (ISWA). Retrieved from [http://www.itto.int/files/user/pdf/publications/PD 286 04/pd286-04-11 rev1\(I\) i.pdf](http://www.itto.int/files/user/pdf/publications/PD 286 04/pd286-04-11 rev1(I) i.pdf)
- Stein, N. A., & Stewards, V. (1999). Platform for collective action in multiple use common-pool resources. *Agriculture and Human Value*, 16, 241–255.
- Stewart, J., Higma, S., Brown, L., Robinson, D., & Peachey, V. (2003). Increasing the Contribution of Forest Certification to Sustainable Rural Livelihoods. In *The International Conference on Rural Livelihood, Forests, and Biodiversity*. Bonn, Germany.
- Susilawati, D. (2013). *The Indonesian Timber Legality Assurance System (Indo-TLAS) in the Community Forest: An Evaluation of Mandatory Timber Verification and Local Practice*. Wageningen.
- Taylor, R., Tomaselli, I., & Asia, N. (2005). *How to hurdle the barriers* (pp. 18–20). Yokohama, Japan. Retrieved from http://www.itto.int/direct/topics/topics_pdf_download/topics_id=10120000&no=1

- TFT. (2009). *Pengelolaan Hutan Rakyat Lestari: Panduan Praktis Menuju Sertifikasi FSC*. (A. Wiyono & S. Sastroprawiro, Eds.). Semarang: The Forest Trust and Waterloo Foundation.
- Vokoun, M., Amacher, G. S., & Wear, D. N. (2006). Scale of Harvesting by non-industrial private forest landowners. *Journal of Forest Economics*, 11(11), 223–244.
doi:10.1016/j.jfe.2005.10.002
- Woodhill, J. (2004). *Facilitating Complex Multi-Stakeholder Processes: A Social Learning Perspective*.
- World Bank. (2012). *Certification, Verification and Governance in Forestry in Southeast Asia*. New York.
- Yuliani, E. L., Tadjudin, D., Indriatmoko, Y., Munggoro, D. W., Gaban, F., Maulana, F., & Adnan, H. (2007). *Multistakeholder Forestry: Steps for Change*. Bogor, Indonesia: Center for International Forestry Research (CIFOR).

APPENDICES

APPENDIX 1 : Principles, Criteria, Indicators of FSC – SLIMF (Small and Low Intensity Managed Forest), LEI – Group Certification, and Indo-TLAS – Group Certification implementing for Private Forest Certification in Indonesia

PRINCIPLES	CRITERIA	INDICATOR	VERIFIER	
<p>FOREST STEWARDSHIP COUNCIL (FSC) - SLIMF (Small and Low Intensity Managed Forest) (FSC, 2009)</p> <p>1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES</p> <p>Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.</p>	<p>1.1. Forest management shall respect all national and local laws and administrative requirements.</p>	<ul style="list-style-type: none"> · The forest enterprise is legally registered · Forest managers have access to relevant national and local legislation and regulations · Forest managers demonstrate compliance with relevant laws and regulations 	<ul style="list-style-type: none"> • Interview with the forest manager demonstrates high level of understanding of what the legislation requires • Field observations and documentation available show that legislation is being complied with. • Records: e.g. registration, permits • No files of complaints or fines • Payment slips; receipts; invoices • Confirmation from government forest officials 	
	<p>1.2. All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.</p>	<p>All relevant fees and other charges are paid</p>		
	<p>1.3. In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.</p>	<ul style="list-style-type: none"> • No substantiated evidence of any non-compliance with applicable requirements of any international agreements listed in the [nation/region] FSC standard • Forest managers are aware of protected areas and species in their forests 		<p>This criterion may not applicable to some categories of SLIMFs as:</p> <p>a) only be implemented or monitored at a national level.</p> <p>b) Many of these agreements (e.g. the Convention on Trade in Endangered Species (CITES)) already apply to all individuals in a country as part of criterion 1.1</p>
	<p>1.4. Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.</p>	<p>Forest managers inform their certification body of any situations in which compliance with the law would preclude compliance with any indicator of the forest stewardship standard</p>		<p>This criterion may be removed for categories of small and low intensity operations, under condition that no conflicts have been identified between national legislation and the FSC P&C</p>

	<p>1.5. Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.</p>	<p>Forest management areas are protected from illegal harvesting, settlement and other unauthorized activities.</p>	<ul style="list-style-type: none"> • Field observations show no damage from unauthorised or illegal activities • Manager's explanation of protection/ prevention activities eg. Signs, gates, patrols, etc • A description of the control and monitoring system is provided. • Copies of reports made to the authorities of problem activities • Boundaries are known to the manager and local communities and are easily identified in the field. • Boundaries are marked in areas where there is a high risk of encroachment • Management plan document • Manager's explanation of management philosophy • Signed contract with a certification body
<p>2: TENURE AND USE RIGHTS AND RESPONSIBILITIES</p> <p>Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.</p>	<p>1.6. Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.</p>	<ul style="list-style-type: none"> • The management plan is consistent with FSC P&C. • Plans (written or informal) for investment, training, and sharing of income or other benefits. • Past management has been compatible with the P&C. 	<ul style="list-style-type: none"> • A nationally accepted means of demonstrating ownership or use rights is available. (ie. Official papers showing land title, customary rights, or lease agreements) • Where no legal documented proof is available there is no evidence of • Documentation and mapping of customary rights areas • Confirmation via interviews with neighbouring community representatives and local community authorities. • Evidence of legal title. • Documentary evidence of acceptance of the dispute resolution mechanisms (e.g. In an agreed management plan, protocol or contract) by the local community representatives. • Interviews with forest manager and local community groups. • Documentation of steps being taken to resolve disputes and documentation of communities acceptance of these procedural steps. • Request documentation from appropriate legal
	<p>2.1. Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.</p>	<ul style="list-style-type: none"> • The forest users have long term rights to the forest and these rights are not contested. • When the local community is not the forest manager, the local communities' rights are defined and agreed to (documented) by both the forest manager and the local communities. 	<ul style="list-style-type: none"> • Local communities' rights should be defined and documented by the appropriate local authorities
	<p>2.2. Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.</p> <p>2.3. Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.</p>	<ul style="list-style-type: none"> • There are no major unresolved disputes relating to tenure and use rights in the forest. • Disputes or grievances are being resolved using locally accepted mechanisms and institutions. • Legal procedures regarding land disputes are followed. • There are documented measures to avoid damage to other peoples' use rights or property, resources, or livelihoods. (to completely reflect and cover 4.5). 	<ul style="list-style-type: none"> • There are no major unresolved disputes relating to tenure and use rights in the forest. • Disputes or grievances are being resolved using locally accepted mechanisms and institutions. • Legal procedures regarding land disputes are followed. • There are documented measures to avoid damage to other peoples' use rights or property, resources, or livelihoods. (to completely reflect and cover 4.5).

<p>3: INDIGENOUS PEOPLES' RIGHTS</p> <p>The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.</p>		<ul style="list-style-type: none"> • There are compensation measures for cases of accidental damages 	<p>office (eg. Land claims office) if land disputes are being legally resolved.</p> <ul style="list-style-type: none"> • There are records of compensation measures in cases of accidental damages
<p>3.1. Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.</p>		<ul style="list-style-type: none"> • Indigenous people demonstrate control of forests on their land. • After a transparent consultation process, agreement with consensus of the community allows forest management by another person or organisation. 	<ul style="list-style-type: none"> • Evidence of a written agreement delegating control to the forest manager by relevant indigenous peoples, authorized by their true representatives. • Direct observation in the field of community control mechanisms of forest operations. • Interviews with community representatives responsible for oversight and monitoring of forest management carried out in their territories. • Evidence of meetings with all indigenous groups involved explaining proposed forest management and its implications.
<p>3.2. Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.</p>		<ul style="list-style-type: none"> • The planning, implementation and monitoring of forest activities within the forest management unit involve full participation of indigenous peoples. • There are well defined customary rights areas of indigenous peoples. 	<ul style="list-style-type: none"> • Documented evidence of Indigenous peoples customary rights areas (eg. Agreed maps, or accepted descriptions) incorporated into the management plans. • Documented evidence of acceptance of the management plan (including maps) by the local indigenous peoples representatives and: <ul style="list-style-type: none"> • Direct field observation of indigenous peoples control of forest operations. • Interviews with indigenous peoples' true representatives confirming acceptance of the management plan. • Monitoring reports of operations. • Adjustments to management described by forest manager if adverse impacts on these rights are identified through monitoring
<p>3.3. Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.</p>		<p>Local and indigenous peoples are satisfied that sites significant to them are all identified and protected.</p>	<ul style="list-style-type: none"> • Interviews with local indigenous peoples true representatives confirm identification and protection. • Sites are known to the manager and forest workers and are marked (in a manner agreed with indigenous peoples representatives) in areas where there is a high risk of disturbance. • Maps and field observations of sites of significance.

<p>4: COMMUNITY RELATIONS AND WORKER'S RIGHTS</p> <p>Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.</p>	<p>3.4. Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.</p> <p>4.1. The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.</p>	<p>If traditional knowledge of indigenous people is used, they receive a fair market value compensation.</p>	<p>Interviews with local indigenous peoples and their designated representatives confirm use of knowledge and acceptance of compensation.</p>
<p>4.2. Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.</p> <p>4.3. The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in conventions 87 and 98 of the International Labour Organisation (ILO).</p> <p>4.4. Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups (both men and women), directly affected by management operations.</p>	<p>4.1. Local and forest-dependent people have equal access to employment and training opportunities</p> <ul style="list-style-type: none"> • Support is provided for local infrastructure, facilities, social programmes. The extent and quality of support is agreed with the local community prior to the start of the operation. Local communities are involved in identification of training, social, economic needs. <p>A community health and safety policy and guidelines are implemented</p> <p>For large low intensity forests, standards may require internal working regulations which define appropriate representation.</p> <ul style="list-style-type: none"> • Forest managers identified and evaluated the social impacts resulting from forest operations • The results of social impact evaluations are considered in the implementation of the management plan • There are functional communication channels between the forest manager and people affected by the operations 	<ul style="list-style-type: none"> • Local and forest-dependent people have equal access to employment and training opportunities • Support is provided for local infrastructure, facilities, social programmes. The extent and quality of support is agreed with the local community prior to the start of the operation. Local communities are involved in identification of training, social, economic needs. <p>A community health and safety policy and guidelines are implemented</p> <p>For large low intensity forests, standards may require internal working regulations which define appropriate representation.</p> <ul style="list-style-type: none"> • Forest managers identified and evaluated the social impacts resulting from forest operations • The results of social impact evaluations are considered in the implementation of the management plan • There are functional communication channels between the forest manager and people affected by the operations 	<ul style="list-style-type: none"> • Interviews with local people. • Certificates of training courses held. • Observations of activities. • Evidence of employment opportunities being distributed among community members e.g. by schedules of work turns, list of names of contracted workers. <p>Interview with the forest workers</p> <ul style="list-style-type: none"> • Written agreements with local clinics where possible • Protective clothing and equipment clearly visible and used <p>Interview with the forest workers or union representatives</p> <ul style="list-style-type: none"> • Interviews or meetings with neighbours and forest manager. • Copies of newspaper advertisements, letters, posters and signs used to inform people of operations. • Copies of social impact assessment reports (formal or informal) • Evidence of changes in management following results of an SIA or monitoring of social impacts.

<p>5: BENEFITS FROM THE FOREST</p> <p>Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.</p>	<p>4.5 Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.</p>	<p>Forest managers can explain a conflict resolution mechanism</p>	<p>Interviews with stakeholders and forest manager.</p>
<p>5.1. Forest management shall strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.</p>	<p>5.1. Forest management shall strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.</p>	<ul style="list-style-type: none"> The operation knows the production costs for volumes harvested. There is a functioning business model which delivers economic benefits while respecting the environmental and social requirements of responsible management. 	<ul style="list-style-type: none"> Interview with the forest manager Harvest plans and sales records Field observations – comparing harvested blocks and non harvested blocks
<p>5.2. Forest management and marketing operations shall encourage the optimal use and local processing of the forest's diversity of products.</p>	<p>5.2. Forest management and marketing operations shall encourage the optimal use and local processing of the forest's diversity of products.</p>	<ul style="list-style-type: none"> Grading and sorting of harvested products shall be conducted to add or maintain commercial value where appropriate Local processing is used where it is viable Harvested products shall be transported from the harvest site to markets on a timely basis to minimize product degrade and loss The forest operation seeks to: <ul style="list-style-type: none"> Process their products locally diversify its production – species, NTFPs, etc 	<p>Records of sales of timber or other forest products and information about local processing options</p>
<p>5.3. Forest management shall minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.</p>	<p>5.3. Forest management shall minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.</p>	<ul style="list-style-type: none"> During harvesting and on-site processing the forest operation seeks to: <ul style="list-style-type: none"> Use residues and reduce waste Reduce impacts on other forest resources. Harvesting is carried out in such a way as to minimize breakage and damage to logs, while optimizing log utilization and value. Removal of unused biomass shall be minimized; branches and bark pieces remain in the forest, as far as possible, and whole tree harvesting is not practiced 	<ul style="list-style-type: none"> Evidence from field inspection Harvest records and sales volumes
<p>5.4. Forest management shall strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.</p>	<p>5.4. Forest management shall strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.</p>	<ul style="list-style-type: none"> Forest managers have information on the range of potential products and services that could be supplied from their FMU, including 'lesser known' timber species, Non Timber Forest Products (NTFPs) and opportunities for 	<ul style="list-style-type: none"> Sales records. Discussions with local communities and the forest manager

	<p>ecosystem services</p> <ul style="list-style-type: none"> o Local initiatives involving the use, processing and or marketing of forest products are being encouraged. 	<p>Local initiatives involving the use, processing and or marketing of forest products are being encouraged.</p>
<p>5.5. Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.</p> <p>5.6. The rate of harvest of forest products shall not exceed levels which can be permanently sustained.</p>	<ul style="list-style-type: none"> • Non-timber forest resources and services within the FMU are protected. • Forest management recognizes and maintains the value of forest services and resources such as watersheds and fisheries. • Forest managers can list the products that are utilized • Harvest levels do not exceed growth levels for the resources being harvested and the cycle proposed. • Minimum stocking levels of timber and other resources are maintained, or, where they do not currently exist due to past mismanagement, are being restored. • When stock levels and growth are not well known (e.g. for certain NTFP species) the forest operation uses conservative harvesting levels. 	<ul style="list-style-type: none"> • Interview with forest managers • Field inspections do not reveal damage to forest services.
<p>6: ENVIRONMENTAL IMPACT</p> <p>Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.</p>	<p>6.1. Assessment of environmental impacts shall be completed – appropriate to the scale, intensity of forest management and the uniqueness of the affected resources – and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.</p>	<ul style="list-style-type: none"> • Management plan. • Field observations of harvesting sites compared to areas planned for harvesting. • Harvest and sales records and plans over the relevant time span. • Data on likely or actual growth rates of species harvested. • Maps of location of NTFP resource.
	<ul style="list-style-type: none"> o Forest managers demonstrate knowledge of the possible negative impacts of its activities on the environment o Forest management operations are executed in a way to minimize these impacts 	<ul style="list-style-type: none"> • Interview with forest manager • Field observations • Management plan • Documented environmental assessment or statement where legally required.

<p>6.2. Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g. nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.</p>	<ul style="list-style-type: none"> • Where information exists on rare, threatened and endangered species and their habitats, the forest manager uses this information to map and protect them. • Other features which are important for conservation are identified and protected. • Felling operations are not conducted in nesting places and during the breeding period • Forest managers implement a reporting system to detect the presence of rare, threatened and endangered species (e.g. field observation records for drivers, workers) • Fishing using dynamite and toxic substances is not permitted. • Forest corridors are maintained along watercourses and open areas • A control system to restrict inappropriate hunting, fishing, trapping and collecting is implemented. 	<ul style="list-style-type: none"> • Interview with forest managers • Field observations • Management plan
<p>6.3. Ecological functions and values shall be maintained intact, enhanced, or restored, including: a) Forest regeneration and succession. b) Genetic, species, and ecosystem diversity. c) Natural cycles that affect the productivity of the forest ecosystem.</p>	<ul style="list-style-type: none"> • Forest management maintains: <ul style="list-style-type: none"> - a natural diversity of stand successional stages, - native species composition appropriate to the site, - stand legacies including large live trees, snags and downed woody material. 	<ul style="list-style-type: none"> • Field observations of forest cover after harvesting, • Harvesting and re-stocking plans.
<p>6.4. Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.</p>	<p>A representative sample of ecosystems within the landscape is identified, mapped and protected.</p>	

<p>6.5. Written guidelines shall be prepared and implemented to: control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.</p>	<ul style="list-style-type: none"> • The road and skid trail network accommodates local conditions and minimizes the forest floor area used by vehicles. Driving takes place only on designated trails. • Water courses, including non-perennial streams, springs, wetlands, etc. are protected. Protection measures are sufficient to maintain or restore water quality • Logging in riverside areas and steep slopes is restricted. • There is no evidence of physical damage to stream bank and bed, changes in stream flow from bridges, culverts or debris and pollution. • No evidence of soil erosion is apparent. 	<ul style="list-style-type: none"> • Field observations • Documents and records • Maps showing locations of permanent roads and tracks and their relationship to watercourses as well as locations of planned, on-going and completed operations.
<p>6.6. Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.</p>	<ul style="list-style-type: none"> ○ No products on the list of FSC 'Highly Hazardous Pesticides' are used. ○ The forest operation seeks to minimize the use of all chemical products (e.g. fertilizers, wood preserver, etc.). ○ Permitted pesticides are only applied by trained and qualified staff or contractors with proper safety equipment ○ Permitted pesticides are stored safely. ○ The use of pesticides is recorded 	<ul style="list-style-type: none"> • Forest manager's explanation of pest and weed control • Field observations • Chemical use records permitted chemicals. • (in some cases, invoices may be appropriate as records for chemical use)
<p>6.7. Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.</p>	<ul style="list-style-type: none"> • Chemical waste as well as fuel and oil from equipment maintenance procedures shall be captured and not allowed to flow on the ground or in watercourses • Containers are available to collect waste before final disposal • Safe areas for storage and re-filling fuel and oil are designated • Chemicals, containers, liquid and solid non-organic wastes including fuel and oil are disposed of in an environmentally appropriate manner at off-site locations. 	<ul style="list-style-type: none"> • Field observations • Interviews with managers and workers • Records of disposal where available

<p>6.8. Use of biological control agents shall be documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.</p>	<ul style="list-style-type: none"> • Biological control agents are only used if they are approved nationally and authoritative scientific sources cited for their use. • Monitoring systems are in place to provide necessary data on use. • No GMOs are used in any element of forest management 	<ul style="list-style-type: none"> • Records of use of biological control agents. • Impact assessment available of biological control
<p>6.9. The use of exotic species shall be carefully controlled and actively monitored to avoid adverseecological impacts.</p>	<ul style="list-style-type: none"> · Exotic species are not introduced into native-species natural forests. · Existing exotic species which are known to be invasive are controlled 	<p>Field observations and species inventory</p>
<p>6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:</p> <ol style="list-style-type: none"> a) entails a very limited portion of the forest management unit; and b) does not occur on high conservation value forest areas; and c) will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit. 	<ul style="list-style-type: none"> · Conversion of natural forest within the FMU only occurs: <ul style="list-style-type: none"> - as part of restoration to natural habitat - when it is clearly necessary to allow conservation and management of the whole forest management unit - only in a very limited area. - In areas that are not HCVF 	<ul style="list-style-type: none"> • Field observation • Discussions with neighbours • Areas of high conservation value are known and mapped. • Forest manager's explanation of the rationale if conversion areas exist or are planned

<p>PRINCIPLE 7: MANAGEMENT PLAN</p> <p>A management plan – appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long term objectives of management, and the means of achieving them, shall be clearly stated.</p>	<p>7.1. The management plan and supporting documents shall provide:a) Management objectives.b) Description of the forest resources to be managed, environmental limitations, landuse and ownership status, socio-economic conditions, and a profile of adjacentlands.c) Description of silvicultural and/or other management system, based on the ecologyof the forest in question and information gathered through resource inventories.d) Rationale for rate of annual harvest and species selection.e) Provisions for monitoring of forest growth and dynamics.f) Environmental safeguards based on environmental assessments.g) Plans for the identification and protection of rare, threatened and endangeredspecies.h) Maps describing the forest resource base including protected areas, plannedmanagement activities and land ownership.i) Description and justification of harvesting techniques and equipment to be used.</p>	<p>Criterion 7.1 requires a level of detail which is greater than many small scale or low intensity operations will need. Principle 7 requires that the management plan should be ‘appropriate to scale and intensity’ and NIs/CBs are encouraged to state what the requirements might be for different categories of operations. (e.g. requirements may focus on annual operational plans, plus maps, plus long-term goals)</p>	<ul style="list-style-type: none"> o Checking the plan exists and contains all the information required. o Field checks that the plan has been implemented in the past and is currently still followed. • Harvest limits are established at sustainable limits and are based on conservative estimates of tree growth and yield. o Silvicultural prescriptions take into account factors such as diameter at breast height, seed trees for each species
<p>7.2. The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.</p> <p>7.3. Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.</p> <p>7.4. While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.</p>	<p>The plan is reviewed at least every X years and updated if necessary. The results of monitoring are used to plan and implement future management.</p> <p>Training courses are offered on implementation aspects.</p>	<p>Checking that the current plan is up to date.</p> <ul style="list-style-type: none"> • Current plans are based on knowledge of effects of previous management. • Manager’s awareness and use of monitoring/ other sources of information in management <p>Interview with managers and workers Observation of quality of field work</p> <p>7.4 may be combined with 8.5</p>	

<p>8: MONITORING AND ASSESSMENT</p> <p>Monitoring shall be conducted – appropriate to the scale and intensity of forest management – to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.</p>	<p>8.1. The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.</p>	<p>Monitoring should be done in a consistent and replicable way over time to allow comparison of results and assessment of change.</p>	<ul style="list-style-type: none"> · Manager’s field notes · Manager’s description of how monitoring is done. · Management plan. · Record of the monitoring activities being implemented.
<p>8.2. Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:a) Yield of all forest products harvested.b) Growth rates, regeneration and condition of the forest.c) composition and observed changes in the flora and fauna.d) Environmental and social impacts of harvesting and other operations.e) Costs, productivity, and efficiency of forest management.</p>	<p>The manager knows what information they need in order to judge progress towards their objectives. The information is collected and recorded. In all cases this will include:</p> <ul style="list-style-type: none"> - Amount of products harvested - Effects of operations as identified under Criteria 6.1 - Changes in features identified under Criteria 6.2 - At least annual monitoring of high conservation values identified under Criteria 9.1 - Invasive exotic species (note this list will be different for NTFP harvesting) 	<p>The manager knows what information they need in order to judge progress towards their objectives. The information is collected and recorded. In all cases this will include:</p> <ul style="list-style-type: none"> - Amount of products harvested - Effects of operations as identified under Criteria 6.1 - Changes in features identified under Criteria 6.2 - At least annual monitoring of high conservation values identified under Criteria 9.1 - Invasive exotic species (note this list will be different for NTFP harvesting) 	<ul style="list-style-type: none"> o Discussions with forest manager demonstrate his knowledge of the forest. • Review of manager’s field notes, observations or reports on HCVs. o Available maps and reports from other sources. • Direct field observation
<p>8.3. Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the “chain of custody.”</p>	<ul style="list-style-type: none"> · A system which allows all products (timber and nontimber) harvested within the FMU to be identifiable as such is implemented. · The system is designed to avoid mixing with forest products from other properties is implemented. · Records allowing products to be traced from the forest are maintained. 	<ul style="list-style-type: none"> • Felling and haulage records • Transport permits and packing lists • Receipts and invoices 	<ul style="list-style-type: none"> • Felling and haulage records • Transport permits and packing lists • Receipts and invoices
<p>8.4. The results of monitoring shall be incorporated into the implementation and revision of the management plan.</p> <p>8.5. While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.</p>			<p>Can be combined with 7.2, as they both require that monitoring results are used to guide future management.</p> <p>Can be combined with 7.4, as they both require that the results of monitoring are incorporated into management plans (and therefore made available to the public).</p>

<p>9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS</p> <p>Where no national guidance has been produced, standards setting committees may specify that small and low intensity operations are not be expected to carry out an assessment for HCVFs. [Some criteria within P9 may be determined by NIs to be inapplicable to certain, very small forest operations.]</p>	<p>9.1. Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.</p>	<p>· Forest managers have assessed their forest for the presence of high conservation value attributes (existing information may be used).</p> <p>· Identified areas of high conservation value are marked on maps and/ or are clearly identifiable in the field</p>	<p>• Evidence of a preliminary assessment and/or full assessment for HCVs, which includes consultation with indigenous people/local communities, conservation databases, maps, scientific experts, etc., where necessary.</p> <p>• Stakeholders' consultation results</p>
	<p>9.2. The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.</p>	<p>The forest manager has consulted with stakeholders to identify HCVF attributes and the management options for their maintenance.</p>	
	<p>9.3. The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.</p>	<p>The management plan describes any high conservation values identified in the forest and the management measures ensuring their maintenance.</p>	<p>• Review of evaluations of HCVFs nationally/regionally and external reports on their presence and proposed management</p> <p>• Review of the management plan including the description of HCVs and measure to ensure their maintenance.</p> <p>• Field checks of implementation of the management plan</p> <p>• Field checks of HCV sites</p> <p>This criterion may be combined with Criterion 8.2.</p>
	<p>9.4. Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.</p>		
<p>10: PLANTATIONS</p> <p>It is recommended that the category of small plantations in national / regional standards includes a category of very small plantations</p>	<p>10.1. The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan.</p>		<p>This may be combined with Criterion 7.1</p> <p>For groups of small plantations the NI may consider including an a requirement to specify the propagation material used: species composition and provenance, seedlings source, nursery, etc. etc.</p>

<p>(eg. < 10ha) and one of small plantations (eg. 11ha-100ha). This will allow standards writers to adapt the standards to benefit the smallest and most resource-poor forest managers.</p>	<p>10.2. The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.</p>	<p>Natural vegetation is kept or restored for X metres each side of streams or rivers.</p>	<p>Field observations of streams, rivers and areas of natural vegetation.</p> <p>Where applicable proxy verifiers may include grants or subsidies which depend on compliance with legislation regarding streamside zones etc.</p>
<p>10.3. Diversity in the composition of plantations is preferred, so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures.</p>	<p>A variety of age classes, sizes of planting blocks and/ or species composition is considered in the composition of the plantation</p>	<ul style="list-style-type: none"> • Management plan • Field observations • Discussions with manager • Seedlings invoice and description (quantity, species, provenance, origin, etc.) 	<ul style="list-style-type: none"> • Management plan • Field observations • Discussions with manager • Seedlings invoice and description (quantity, species, provenance, origin, etc.)
<p>10.4. The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts.</p>	<ul style="list-style-type: none"> - The species chosen for plantations are suited to the site and matched to the objectives. - Exotic species are used only where they will clearly meet the management objectives better than native species. 	<ul style="list-style-type: none"> • Discussions with the manager about plantation objectives • Plans for future planting • Field observations of planting sites and control of exotic species. • Research papers, publications, expert opinion, etc.. verify that the planted species that is suitable for plantation management under given circumstances 	<ul style="list-style-type: none"> • Discussions with the manager about plantation objectives • Plans for future planting • Field observations of planting sites and control of exotic species. • Research papers, publications, expert opinion, etc.. verify that the planted species that is suitable for plantation management under given circumstances

<p>10.5. A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover.</p>	<ul style="list-style-type: none"> · Natural vegetation is kept or restored for X metres each side of streams or rivers. · Patches of natural vegetation of X% are maintained · Improvements to the ecological value of the plantation are made particularly around conservation features 	<ul style="list-style-type: none"> • Field observations of conservation features • Plans for future improvements • Documentation or field verification of off-site contributions.
<p>10.6. Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.</p>	<p>Measures are taken to maintain or improve soil structure, fertility and biological activity. The plantation does not result in long term soil degradation or adverse impacts on water resources.</p>	<ul style="list-style-type: none"> • Field observations of soils in the plantation • Field observation of water quality • Discussion with the forest manager
<p>10.7. Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.</p>	<ul style="list-style-type: none"> - Plantation management is designed to minimize pests and diseases and risk of fire - Plantation management shows a primary reliance on pest prevention and biological control methods. - Use of pesticides and fertilizers is minimized. 	<ul style="list-style-type: none"> • Discussions with the forest manager • Absence of fire and pest damage • Participation in local fire or pest control groups.

<p>10.8. Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impact on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.</p>		<p>The social and ecological impacts of even small plantations should be monitored, but for small and very small plantations (<100ha) Criterion 10.8 may be covered by Criterion 4.4 (social impact assessment), Principle 2 (local use and access rights) and Criterion 8.2 (monitoring).</p>
<p>10.9. Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion.</p>	<p>- If the plantation was converted from natural forests this occurred before 1994.</p> <p>- Certification may be allowed if the manager was not directly or indirectly responsible for conversion.</p>	<ul style="list-style-type: none"> • Evidence of land use before 1994 • Evidence of change of tenure or responsibility since 1994. a.gement is designed to minimize pests and diseases and risk of fire <ul style="list-style-type: none"> - Stakeholder interview - Official Authorities

PRINCIPLES	CRITERIA	INDICATOR	VERIFIER
INDONESIA ECOLABELING (LEI) – Group Certification (LEI, 2014)			
1: SUSTAINABLE PRODUCTION FUNCTION	1.1. Sustainable Resources	Forest Location according to legal and official land use	
		Land status and boundary is clear	
		Land cover change	
		Forest management	
		Silvicultural system appropriate with land capacity	
		Maintain of forest area	
		Certainty of forest production	
		Harvesting control	
		Land use efficiency	
		Tracking system (Chain of Custody)	
	Forest management infrastructure		
	Forest product arrangement		
	1.3. Sustainable Effort	Healthy system	
Market Access			
Management Information System			
2: SUSTAINABLE ECOLOGICAL FUNCTION	2.1. Ecosystem stability	Skilled-labour	
		Investment and re-investment on forest management	
		availability of production management rule that minimizes disruption to the integrity of the environment	
		Protected area & forest land boundaries	
		impact of production management activities on the stability of the ecosystem (soil, water, and forest composition)	
	2.2 Endangered/endemic/protected Species	Availability of information of endangered/endemic/protected species	
		Minimize the impact of production management with endangered / endemic / protected species	
		status of land / area is not in conflict with the citizens of their community members and other parties	
		clear boundaries with other owner	
		Function of the area according to the interests of the community / public is clearly recognized as a permanent forest estate	
3: SUSTAINABLE SOCIAL FUNCTION	3.1. Land Tenure		

	<p>using mechanism that is democratic and fair to the opposition claims over the same forest</p> <p>Offender management really CBFM community residents, both on the single tenure or in partnership</p>
<p>3.2. Ensuring the resilience and community economic development</p>	<p>Community can continue to support the survival of economic resources across the generations</p> <p>The application of minimum production techniques while maintaining the level of employment that exist, both men and women</p> <p>Forest management activities as well as post-harvest developed as far as possible within the community and using community labor</p>
<p>3.3. Create symmetrical pattern of social relations in the production process</p>	<p>The pattern of relationships that have developed between the various parties in the forest is relatively equal</p> <p>Comparison of clear authority and democracy in the organization and implementation of CBFM</p>
<p>3.4. Interest justice according to community benefit</p>	<p>There is compensation for losses suffered as a result of the overall community forest management and all citizens of the community agreed</p> <p>There is a mechanism of public liability to the management group of the community and / or public</p>

PRINCIPLES	CRITERIA	INDICATOR	VERIFIER
TIMBER LEGALITY ASSURANCE SYSTEM (INDO-TLAS) – Group Certification Based on forestry regulation (Permenhut) No.P38/Menhut-II/2009 jo P.68/Menhut-II/2011 jo P.45/Menhut-II/2012 I: TIMBER OWNERSHIP CAN BE AUTHENTICATED	1.1. The validity of property rights in relation to the area, wood and trade	Private forest owner is able to demonstrate the validity of their rights	Verifier 1.1.1. (A) - Documents of ownership / legal tenure (base title / document recognized competent authority) - Map / sketch forest rights and limits on the field
		Management unit (both individual and group) were able to prove the document forest products transport	Verifier 1.1.2. Transport document legitimate forest products
		Management Unit show proof of payment for forestry sector tax in terms of standing stock before the transfer of title or possession	Verifier 1.1.3. Proof of payment rights of the State in the form of PSDH / DR and replacement stumpage

REFERENCES:

FSC. (2009). *Forest Stewardship Council FSC Guidance Document: Guidance on the Interpretation of FSC Principles and Criteria to Take Account of Small Scale and Low Intensity*. FSC-GUI-60-001 V1-0 EN (Vol. 49, pp. 1–47). Germany. Retrieved from <http://ic.fsc.org/download.fsc-gui-60-001-v1-0-en-slimf-interpretation-of-fsc-principles-and-criteria.a-471.pdf>

LEI. (2014). Indonesian Ecolabel. Retrieved May 10, 2014, from <http://www.lei.or.id/sertifikasi-phbml>

APPENDIX 2: Database of Certified Private Forest Group by FSC, LEI, and Indo-TLAS until May 2013

No	Group's name	Type of certificate	Location (Province)	Companion Institution	Total Area (ha)
1	Koperasi Taman Wijaya Rasa	FSC	Central Java	TFT	118.23
2	CV. Dipantara	FSC	D.I. Yogyakarta	TFT	90.00
3	Koperasi Wana Lestari Menoreh	FSC	D.I. Yogyakarta	Telapak	129.82
4	Koperasi Hutan Jaya Lestari	FSC	Southeast Sulawesi	WWF, TFT, JAUH, Telapak	754.44
Total Private Forest area certified by FSC					1092.49
1	FKPS Selopuro	LEI	Central Java	Persepsi	262.77
2	FKPS Sumberejo	LEI	Central Java	Persepsi	547.18
3	GOPHR Wono Lestari Makmur	LEI	Central Java	Persepsi	1179
4	PPHR Catur Giri Manunggal	LEI	Central Java	Persepsi	2434.24
5	UMHR Wana Reja Asri	LEI	Central Java	Persepsi	1404
6	Asosiasi Tunas Sari Mulyo	LEI	Central Java	Arupa	475.85
7	Gapoktan Jati Mustika	LEI	Central Java	Arupa	500.36
8	Koperasi Wana Manunggal Lestari	LEI	Central Java	Arupa, Shorea, PKHR	815.18
9	UMHR Argo Bancak	LEI	D.I. Yogyakarta	Persepsi	600
10	UMHR Rimba sari	LEI	East Java	Persepsi	1073
11	UMHR Wana Lestari	LEI	East Java	Persepsi	3427.11
12	UMHR Gerbang Lestari	LEI	East Java	Persepsi	2889.29
13	UMHR Alas makmur	LEI	East Java	Persepsi	995
14	UMHR Ganyar Wana Lestari	LEI	East Java	Persepsi	502.79
15	Giri Lestari	LEI	East Java	Persepsi	1,448.19
16	PPHR Jati Mulya Lestari	LEI	East Java	Persepsi	805.27
17	Kasreman Lestari	LEI	East Java	Persepsi	649.54
18	Argo Mulyo	LEI	East Java	Persepsi	966.25
19	Koperasi Rimba Jaya Lestari	LEI	East Java	Persepsi	1029.00
Total Private Forest area certified by LEI					22,004

No	Group's name	Type of certificate	Location (Province)	Companion Institution	Total Area (ha)
1	Koperasi Hutan Mas	Indo-TLAS	North Sumatera	SSS Pundi Sumatera, KPHSU	352.875
2	Comlog Giri Mukti Wana Tirta	Indo-TLAS	Lampung	Telapak	225.3
3	Kelompok Tani Sejahtera	Indo-TLAS	West Java	IDEAS	40
4	Gapoktan Jati Mustika	Indo-TLAS	Central Java	Arupa	500.36
5	APHR Wonosobo	Indo-TLAS	Central Java	Arupa	1228.65
6	APHR Tree Manunggal Lestari	Indo-TLAS	Central Java	Arupa	765.61
7	APHR Purwolestari	Indo-TLAS	Central Java	MFP	500
8	APHR Gawe Makmur	Indo-TLAS	Central Java	Persepsi	349.23
9	Koperasi Wana Manunggal Lestari	Indo-TLAS	D.I. Yogyakarta	Arupa, Shorea, PKHR	815.18
10	UMHR Wono Lestari	Indo-TLAS	D.I. Yogyakarta	Arupa	786.54
11	Koperasi Hutan Sumber Wilis	Indo-TLAS	East Java	Telapak	450
12	Gapoktan Sukamaju	Indo-TLAS	East Java	LATIN	429
13	APHR Panca Mulya Lestari	Indo-TLAS	East Java	JAVLEC	527.57
14	UPHR Kare Lestari	Indo-TLAS	East Java	MFP II	1779.5
15	APHR Lestari - Catur Sari	Indo-TLAS	East Java	MFP II	314.99
16	OPHR Rimbun Lestari	Indo-TLAS	East Java	MFP II	556.4
17	UMHR Wana Argo Wilis	Indo-TLAS	East Java	MFP II	464.93
18	FMU Enggal Mulyo	Indo-TLAS	East Java	Persepsi	1033
19	APKAR Bulukumba	Indo-TLAS	South Sulawesi	SCF	304.25
20	Koperasi Hutan Jaya Lestari	Indo-TLAS	Southeast Sulawesi	WWF, TFT, JAUH, Telapak	754.44
21	Koperasi Hutan Jati Muna	Indo-TLAS	Southeast Sulawesi	SCF	167.58
22	KSU APIK	Indo-TLAS	Bali	Yayasan Wisnu, SATIN	72.4
Total Private Forest area certified by Indo-TLAS					11,189
Total Certified Private Forest area in Indonesia					32,216

APPENDIX 3: Questionnaire Form and Interview Guidance

A. Questionnaire Form

<p>QUESTIONNAIRE FORM FOR PRIVATE FOREST OWNER'S GROUPS</p> <p>Dear Mr./Mrs. Respondents</p> <p>I would like to thanks for your participation to contribute for my research. Let me introduce myself, my name is Inggita Utami. I'm master student in Graduate Program in Sustainability Science, The University of Tokyo, Japan. I'm doing research about "Analysis of forest management and external stakeholder support: Study of forest certification in Indonesian private forest". To answer the purposes of my research, I need the help of Mr / Mrs as a leader of certified or uncertified of private forest owners group that based on truth conditions experienced by your group. This study is expected to provide input to the relevant parties in determining policy direction related to the development of forest certification for Private Forests in Indonesia. Thank you for your help, time, and participation. Best, Inggita Utami.</p>																			
<p>I. Basic Information of Group</p> <table border="1"> <tr> <td>Name of Group</td> <td>.....</td> </tr> <tr> <td>Year established</td> <td>.....</td> </tr> <tr> <td>Reason for create the group</td> <td>a. Member initiative b. Government program/support c. NGO program/support d. Requirement of certification process e. Others:</td> </tr> <tr> <td>Group location</td> <td>Village : District : Sub-district : Province :</td> </tr> <tr> <td>Information of Group's leader</td> <td>Full name : Background academic/activities : Other activities :</td> </tr> <tr> <td>Total area (hectares) on group</td> <td>Total area : from sub-village, Village, Sub-district</td> </tr> <tr> <td>Total members (person)</td> <td>.....</td> </tr> <tr> <td>Type of wood and annual productivity (m³/year)</td> <td>1. : 2. : 3. :</td> </tr> <tr> <td>Annual allowable cut</td> <td>.....</td> </tr> </table>		Name of Group	Year established	Reason for create the group	a. Member initiative b. Government program/support c. NGO program/support d. Requirement of certification process e. Others:	Group location	Village : District : Sub-district : Province :	Information of Group's leader	Full name : Background academic/activities : Other activities :	Total area (hectares) on group	Total area : from sub-village, Village, Sub-district	Total members (person)	Type of wood and annual productivity (m ³ /year)	1. : 2. : 3. :	Annual allowable cut
Name of Group																		
Year established																		
Reason for create the group	a. Member initiative b. Government program/support c. NGO program/support d. Requirement of certification process e. Others:																		
Group location	Village : District : Sub-district : Province :																		
Information of Group's leader	Full name : Background academic/activities : Other activities :																		
Total area (hectares) on group	Total area : from sub-village, Village, Sub-district																		
Total members (person)																		
Type of wood and annual productivity (m ³ /year)	1. : 2. : 3. :																		
Annual allowable cut																		
<p>II. Information of group assistance/facilitation</p> <table border="1"> <tr> <td>Are your group / organization getting assistance / facilitation from government or other external stakeholder?</td> <td>a. No b. Yes, who? and when? - Government (Dishutbun) - Industry partner (name :) - NGO (name :) - Others:</td> </tr> <tr> <td>Is assistance / facilitation is routinely performed or not?</td> <td>a. Not routine b. Routine, schedule? - Every weeks - Once a month - Once every several months - Once every year - Never</td> </tr> <tr> <td>What kind of assistance / facilitation given by government or other external stakeholder?</td> <td>a. Cultivation of wood, from planting to harvest b. Cultivation of seedling c. Member asset data collection (mapping, inventory) d. Measurement of annual timber productivity & annual timber allowable cut e. Timber market condition f. Trees and timber labeling g. Others:</td> </tr> <tr> <td>Is your group get subsidies from government or other external stakeholder?</td> <td>a. No b. Yes, what kind of? - Free seedlings - Operational group funding - Soft loan / credits for members - Processing timber machine - Others:</td> </tr> <tr> <td>Are member of your group active in following any program provided by government or other external stakeholder?</td> <td>a. Not active b. Less active c. Moderate d. Active e. Very active</td> </tr> </table>		Are your group / organization getting assistance / facilitation from government or other external stakeholder?	a. No b. Yes, who? and when? - Government (Dishutbun) - Industry partner (name :) - NGO (name :) - Others:	Is assistance / facilitation is routinely performed or not?	a. Not routine b. Routine, schedule? - Every weeks - Once a month - Once every several months - Once every year - Never	What kind of assistance / facilitation given by government or other external stakeholder?	a. Cultivation of wood, from planting to harvest b. Cultivation of seedling c. Member asset data collection (mapping, inventory) d. Measurement of annual timber productivity & annual timber allowable cut e. Timber market condition f. Trees and timber labeling g. Others:	Is your group get subsidies from government or other external stakeholder?	a. No b. Yes, what kind of? - Free seedlings - Operational group funding - Soft loan / credits for members - Processing timber machine - Others:	Are member of your group active in following any program provided by government or other external stakeholder?	a. Not active b. Less active c. Moderate d. Active e. Very active								
Are your group / organization getting assistance / facilitation from government or other external stakeholder?	a. No b. Yes, who? and when? - Government (Dishutbun) - Industry partner (name :) - NGO (name :) - Others:																		
Is assistance / facilitation is routinely performed or not?	a. Not routine b. Routine, schedule? - Every weeks - Once a month - Once every several months - Once every year - Never																		
What kind of assistance / facilitation given by government or other external stakeholder?	a. Cultivation of wood, from planting to harvest b. Cultivation of seedling c. Member asset data collection (mapping, inventory) d. Measurement of annual timber productivity & annual timber allowable cut e. Timber market condition f. Trees and timber labeling g. Others:																		
Is your group get subsidies from government or other external stakeholder?	a. No b. Yes, what kind of? - Free seedlings - Operational group funding - Soft loan / credits for members - Processing timber machine - Others:																		
Are member of your group active in following any program provided by government or other external stakeholder?	a. Not active b. Less active c. Moderate d. Active e. Very active																		

III. Information of Group Management (Note : mark (X) for your answer)

	None	Less	Enough	Good	Very good
INSTITUTIONAL					
Formulation of group committee (group structure, vision & mission, work plan)					
Documenting member information (member data, total area/member, total tree/land, tree species, etc)					
Documenting land tenure (land certificates, <i>girik</i> /letter C) and logging document (SKAU, SKSKB, FAKO, or other receipts of logging)					
Assistance support for strengthening group					
Funding and subsidies support					
ECONOMIC STRATEGY AND PLANNING					
Timber harvesting plans by group					
Coordinate of transparent, fair, and profitable timber sales by group					
Business development group (credit loans, leasing of land, cooperative establishment)					
Support for receiving forest certificate to increase timber value					
Support provision of processing timber machine					
STAKEHOLDER RELATION					
Planned member's meeting					
Make a plan supporting local value					
Procurement program supporting education, health, and social services					
Procurement of open dialogue within group member and with external stakeholder					
Group actively invited to seminar, and event was made by stakeholder					

	None	Less	Enough	Good	Very good
LEARNING AND RESEARCH					
Procurement training for member about forest management					
Procurement training for member about timber market condition					
External stakeholder support for sustainable forest management					
Research developing by group					
Research support by outsiders					
Operational Planning & Management					
Group asset Mapping (include conservation area)					
Measurement annual productivity					
Measurement annual allowable cut					
Labeling (Chain of Custody)					
Inventory of conservation area, protected flora and fauna					

IV. Information on certification

Have your group already certified by FSC, LEI, or Indo-TLAS?	a. Yes, type & validation time:
	b. On the process, type :
	c. Not yet
Where are group know about certification?	.....
Have your group representative following forest certification socialization?	a. Never
	b. Yes, Year : Type :
Is the socialization makes your group obtain certification after that?	a. Yes
	b. No, why?
For certified group:	
- What is your verification body?	.....
- Motivation to obtain certification?	.....
- Who is your companion institution?	.....
- Did your group received subsidy for initial cost of certification?	..... From
- Did your group receiving funding support for surveillance?	..... From

V. External stakeholder involvement on every step on certification process		Who's external stakeholder involved?(you can answer more than one) (gives some note also)	Score
Certification Process			
Pre-certification	Initial Socialization		
	Requirement documents' collection		
During Verification	Verification Process		
Post-Certification	Publication		
	Certified Timber sales		
VI. Barrier and Opportunities after receiving certificate			
Score : 1: had no influence, 2: influential, 3: very influential			
List of Barriers			Score
Socialization And Intensive Facilitation			
Difficult to collect documents from members			
Difficult for members to gather and discuss about certification			
Facilitation from NGO or government limited or no effect			
Timber is not a main commodities (agriculture oriented)			
Verification process and Certification cost			
Access and information to obtain initial audit costs was difficult			
Verification process needs and consumes long time			
Absence aid for surveillance or annual audit after verification			
The group is still very dependent on external funding			
Publication			
Lack of group understanding if Indo-TLAS is mandatory			
The lack of a post certified publication			
Lack of information access because Geographical location			
The lack of certification information from the Local Forest agency			
Access to Market			
There is no or low premium price			
Volume demand from certified timber industry was too high			
Process to sell certified timber process is more complicated			
Certified timber industry centered only in Java			
List of Opportunity			Score
Socialization and Intensive Facilitation			
Increased member's skill, knowledge, and experience			
Forest inventory is getting organized			
Increased Training and Information access			
Facilitators provide full assistance in various ways			
Verification process and Certification cost			
Independent for self-financial on annual audit and re-certification			
Access and process to obtain initial cost subsidies is easy			
Increased participation of various stakeholders			
The verification process is easy and assistance was helpful			
Publication			
Invited in many events and seminars			
Access to new markets or industries is increasing			
Increase visit of local and international researchers			
Aid funds and facilities (machines) from other parties increases			
Access to Market			
Timber price increased			
Increased timber demand			
Sales of timber more easily and directly to consumers			
Industry is asking for certified wood increased continuously			
VII. Strategies to optimize benefit			
Internal actions:		Internal action	
1.	.....	Supporting stakeholder:	
2.	.....	.....
3.	.....	.....
External support strategies:		Supporting stakeholder:	
1.	.....	.....
2.	.....	.....
3.	.....	.....
Thank you for your participation in filling out this questionnaire.			
Regards, Inggit Utami			

B. Interview Guidance

This part is a guidance for interview several relevant external stakeholder that involved in Indonesian private forest certification system. List of questions was related with several aspect of decision-making level on multi-stakeholders processes, such as:

A. Operational Level

- Roles in certification system for Private forest group
- Scale of participation (national, regional, or local level)
- Commitment to follow up
- Initiative and innovation action
- Support network

B. Collaborative level

- The boundaries of dialogue in MSPs
- Spirit equality in participation and action
- Shared access information

C. Constitutional Level

- The boundaries of dialogue in MSPs
- Shared access information
- Collaboration with national decision-making level
- Collaboration with international decision-making level