

การประเมินระบบการนำเคลื่อนที่ไม้ในประเทศไทย

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บทคัดย่อ

ปัจจุบันประเทศไทยกำลังเผชิญการเตรียมความพร้อมสำหรับการเจรจาต่อรองด้านการค้าไม้และผลิตภัณฑ์ไม้กับ สหภาพยุโรป รวมทั้งข้อตกลงของอาเซียนและองค์การระหว่างประเทศอื่นๆ ในด้านการจัดการป่าไม้อย่างยั่งยืน การผลิตและ ส่งออกไม้/ผลิตภัณฑ์ไม้รวมทั้งผู้ประกอบการนับเป็นสินค้าสำคัญที่นำรายได้มหาศาลมาสู่ประเทศ อีกทั้งรัฐบาลมีนโยบายให้ ประเทศไทยก้าวสู่ความเป็นศูนย์กลางการผลิตเฟอร์นิเจอร์ที่ใหญ่ที่สุดในภูมิภาคเอเชีย ขณะเดียวกันการส่งออกไม้/ผลิตภัณฑ์ ป่าไม้อยู่ภายใต้แรงกดดันของการแข่งขันที่เพิ่มขึ้นในตลาดโลก ประเทศไทยจำเป็นต้องสร้างมาตรฐานการรับรองผลิตภัณฑ์ไม้ ว่ามาจากแหล่งที่ถูกต้องตามกฎหมายและการจัดการอย่างยั่งยืน ดังนั้นปีพ.ศ. 2553 ด้วยความร่วมมือระหว่างกรมป่าไม้และกรม ศุลกากร กรมป่าไม้ได้พัฒนาโครงการนำร่องเกี่ยวกับระบบการอนุญาตและควบคุมการนำเคลื่อนที่ไม้โดยใช้ระบบ อิเล็กทรอนิกส์ จึงมีความจำเป็นอย่างยิ่งที่จะต้องศึกษาติดตามผลการดำเนินงานของโครงการดังกล่าว การศึกษาวิจัยครั้งนี้เป็น การวิจัยเชิงคุณภาพ กรณีศึกษาคำเนินการในเขตกรุงเทพมหานครและจังหวัดสมุทรปราการ วัตถุประสงค์ของการศึกษาวิจัย เพื่อ วิเคราะห์และรายงานเกี่ยวกับการทำงานของระบบการอนุญาตและควบคุมการนำเคลื่อนที่ไม้โดยใช้ระบบอิเล็กทรอนิกส์ โดยวิเคราะห์เปรียบเทียบคุณภาพการควบคุมการนำเคลื่อนที่ไม้ของกรมป่าไม้ระหว่างระบบเดิมที่ใช้อยู่ในปัจจุบัน (เอกสาร กระดาษ) กับระบบใหม่ (เอกสารอิเล็กทรอนิกส์) ผลการศึกษาพบว่าระบบการควบคุมและติดตามการนำเคลื่อนที่ไม้โดยใช้ ระบบอิเล็กทรอนิกส์ ซึ่งมีแนวทางการพัฒนามาจาก Chain of Custody Guidelines: Pan-ASEAN Timber Certification Initiative Draft 2.0 นับเป็น เครื่องมือที่จะช่วยยกระดับมาตรฐานการตรวจสอบรับรองไม้และผลิตภัณฑ์ไม้ของไทยให้เข้าสู่มาตรฐานสากล และยังเป็น การเตรียมพร้อมรองรับแผนพัฒนาฐานข้อมูลและเครือข่ายการแลกเปลี่ยนข้อมูลในระดับประเทศ (National Single Windows) ระบบใหม่ ไม่เพียงแต่อำนวยความสะดวกเรื่องการควบคุมไม้นำเข้า/ส่งออกและผลิตภัณฑ์ไม้ หากยังเป็นการเพิ่มศักยภาพของการจัดการ ฐานข้อมูลและติดตามข้อมูลของห่วงโซ่อุปทานในระดับการปฏิบัติแบบตามเวลาจริง ตลอดจนสร้างเครือข่ายการแลกเปลี่ยน ข้อมูลระหว่างหน่วยงานที่เกี่ยวข้องแบบบูรณาการ

คำสำคัญ ระบบติดตามการนำเคลื่อนที่ไม้ของประเทศไทย, ห่วงโซ่อุปทาน, การตรวจพิสูจน์รับรองไม้

Analysis of Timber Tracking System in Thailand

Utharat Pupaiboon

Abstract

Nowadays Thailand faces preparation for potential negotiations with the European Union, ASEAN's agreement and international organizations in the field of sustainable forest management. On the one hand Thailand has been a significant net exporter of forest products and on the other timber trade is under increasing competitive pressure from the international commitment of sustainable forest management. In addition, the government in its drive to make Thailand one of the largest furniture production centers in Asia. Hence Thailand needs to build up standards of performance, which represent that their Thai timber products come from legal and sustainable sources. In 2010, an action plan pilot project on electronic-Timber Tracking System was set up by cooperation between Royal Forest Department and Department of Customs in Thailand. The research was carried out in Bangkok and Samutprakran province in Thailand. This research study is based on qualitative methodology to find out the developing process of the timber tracking system in Thailand. The study has investigated not only the initiative electronic-Timber Tracking System, but also current system of timber controlling of Royal Forest Department. The result found that Thailand's timber tracking system was created using electronic equipment in order to manage the database and network information exchange for National Single Window. It has been developed based on the Chain of Custody Guidelines: Pan-ASEAN Timber Certification Initiative, Draft 2.0 28 March 2009. The system is not developed only for facilitating imported and exported timbers and timber products but also for enhancing former Chain of Custody paper-based documentation system. The new system also increase qualitative of database management and strengthens control information exchange through Chain of Custody by network. Moreover, the digital system provides beneficial for the real-time information of entire wood supply chains.

Keywords: Thailand's Timber tracking system, Chain of Custody, Timber verification

Introduction

Thailand's wooden furniture industry is the country's largest wood-based export sector. Wood product export from Thailand is one of the largest sources of national income approximate 100,000 million baht per year. (RFD, 2005) Logs and sawn timbers import are increasing to support raw material demand of industries. On the one hand Thailand has been a significant net exporter of forest products and on the other, timber trade is under increasing competitive pressure from the international commitment of sustainable forest management (SFM). Hence Thailand needs to build up standards of performance for SFM which represent that their Thai timber products come from legal and sustainable sources. In addition, the 29th AMAF asked ASOF to develop and implement a work plan to achieve the following measures: to strengthen forest law enforcement and governance (FLEG) in respective countries so as to be consistent with prevailing national laws, rules and regulations; to enhance collaborative activities and program such as regional customs and trade cooperation, forestry sector transparency, joint approaches in timber certification, country diagnostics and experience sharing; and to build upon East Asia Forest Law Enforcement and Governance (EA FLEG) initiative as a meaningful platform for synergistic partnership and cooperation. (ASEAN, 2008, Scheyvens and Lopez-Casero, 2010)

In 2010, an action plan pilot project on electronic-Timber Tracking System (e-TTS) was set up by cooperation between Royal Forest Department (RFD) and Department of Customs (DOC) in Thailand. The project has taken steps towards achieving the national C&I and standards of performance for SFM and support regional processes working on the area of FLEG such as the European Union Forest Law Enforcement, Governance and Trade (EU FLEGT), United State Lacey Act, Asia Forest Partnership (AFP), and the EA FLEG initiative. Hence Timber Tracking System provides assurances that the product or product line, about which a claim is being made, is linked to a certified forest.

Objectives and Scope

The purpose of this study was to investigate how the timber tracking system supports and demonstrates wood product certification in Thailand. The main objectives are as follows:

- To study the operation of the timber tracking system in Thailand
- To analyze data application used in the timber tracking system. (initiative project in 2010)

The specific objectives look at:

- Assessing the development of quality certification and improvement of current system
- Combining the development of national standards for forest management certification

Methodologies

This study used qualitative method to find out the developing process of the timber tracking system in Thailand. The qualitative analysis methods were used to compile the data. The data of the research is collected from 3 sources as follows: 1) survey observation, 2) relevant documents, and 3) in-depth interview. Data triangulation was used to ensure data collection before being undertaken with qualitative analysis. The choice of case study was of greatest significance and crucial for timber tracking system evaluation. All cases were chosen to represent on the different supply chains based on sources of timbers and the first point enter into system. They were selected in three cases as: (i) import timber of the first point entered at international port in Bangkok, (ii) domestic timber from plantation area where the first point entered at RFD's check point nearby harvesting area, and (iii) timber/products from industry of the first point entered at RFD's check point to customer. (Figure 1)

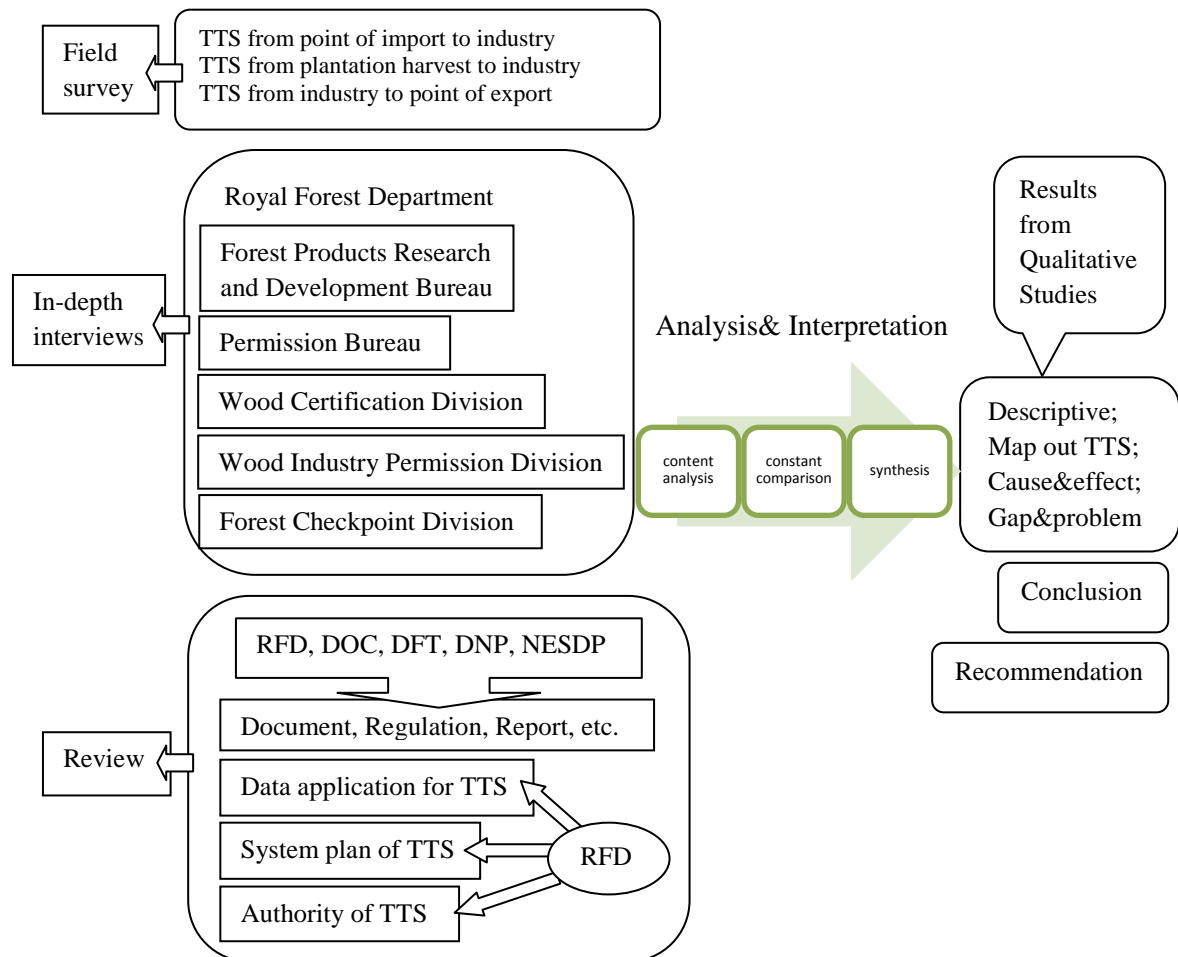


Figure 1 Conceptual framework of study plan and activities

Operation of Thailand timber tracking system

The current system, paper-base system, has a strict process and basic controls that perform supply chain from the starting point until the end of transportation, which the limited paper-base effected on qualitative procedure not only loses time and resources but also makes it impossible to confirm information of supply chain on the real time while timbers have moved along the Chain of Custody (CoC).

The new e-TTS, digital-base system, of both domestic and import has stilled procedure and operation to control timber transportation the same as the current system that are regulate under the forest products transit rule, which are developed to suitably comply with Forest Law and Act. The e-TTS has added computerized and contained in electronic database. The significant data flow of e-TTS will be put into the digital-base system which can be linked through the main server of RFD. (Figure 2) The permit documents were issued including a specific barcode. The computer software and implementation defeats the weak point of paper-base system. The program fluently transfers security data through the procedures of timber tracking and links the overall tracking system into the integrated system. The new system increases the qualitative database management and strengthens control information exchange through chain of custody by network. The activities comparing between TTS and e-TTs of case study were showed in Table 1

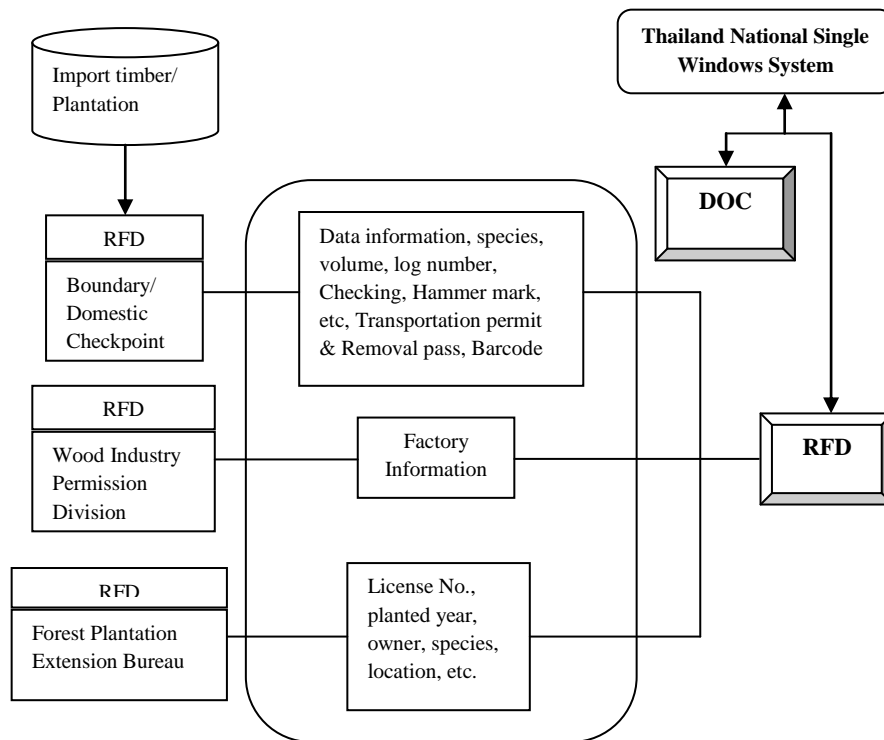


Figure 2 Function and Data flow of e-TTS (New System)

Table 1 Timber Tracking System Comparisons of Processing

	Processing of Domestic or Import	Chain of Custody Activities		Authority organization
		TTS	e-TTS ^(a)	
Domestic sawn timbers transportation control	Forest plantation register complied with Forest Plantation Act 1992	License number document paper	License number document paper + input license number, data, information into e-database system	Forest Plantation Extension Bureau, Local Forest Management Office
	1 st point (plantation harvesting area)	Issue permit document paper	Issue permit document paper include Barcode + input e-data into software system	local office and domestic check point (RFD)
	2 nd ,.....(check point following fixed route given)	Prove timbers , document paper, hammer mark, sign pass paper	Prove timber & document, hammer mark, scan Barcode + sign e-pass into system	check points (RFD)
	The end point of timbers (plants or industries of wood products)	Record timbers data in account book	Record timbers data + Barcode number in account book (no e-record software)	Forest Law regulation ^(b) (owner plant)
	1 st point (port or boundary check point)	Verify timbers , Invoice, loading Packing list, BL	Verify timbers , Invoice, CO(Certificate of origin), BL(Bill of loading),etc.	DOC RFD
Import timbers transportation control		Issue permit document paper	Issue permit document paper include Barcode + input e-data (Invoice, CO) into software system	
	2 nd ,.....(check point following fixed route given)	Prove timbers , document paper, hammer mark, sign pass paper	Prove timber & document by Barcode, hammer mark, + sign e-pass into system	check points (RFD)
	The end point of timbers (plants or industries of wood products)	Record timbers data in account book	Record timbers data + Barcode number in account book (no e-record software)	Forest Law regulation ^(b) (owner plant)

Note: ^(a) Data of e-TTS were collected during experiment time of system running by case study routes which followed in chapter 2.

^(b) Document forms issued by RFD which owners due to record data of timbers / wood products in both purchase and sell.

Conclusion

In the present, RFD which is responsible for preparing timber-harvesting plans has been dissolved. The rise in demand of timber and timber products vary according to an increasing population. Recently, the timber control system in Thailand is a manual paper document process, which was taken under the Forest Law and Act. Timber and Non-timber Forest Products has identified that there are 9 acts related to the access and controlling procedures and mechanisms to wood and non-wood forest products in Thailand. (Silva, 2001, Kaiyoorawong, 2002) Most timber materials imported from exporter countries and timber products to be exported to consumer countries have to provide a verifiable system of traceability that allows timber to be tracked throughout its physical movement the wood supply chain from the forest where it is sourced to the final product. (Dykstra, et al., 2003) To deal with these problems Thailand has to manage CoC for the following: (i) considering ASEAN Regional Criteria and Indicator for Sustainable Management of Natural Tropical Forests to be as Thailand SFM, (ii) providing special RFD unit to take responsibility for the Online Monitoring, Assessment and Reporting (MAR) Systems of Sustainable Forest Management, and (iii) compliance with the international schemes and agreements. (Suwannawimon, 2009)

Strengths of e-TTs

The overall improved operations and benefits of new system, digital-base system, are as follows:

- Adequate tracking/CoC system for monitoring timber flow in country
- Control, track back and cross check between check points and RFD's main frame can transfer online by network.
- Data information, permit document and specific route of transportation which are attached to **Barcode** are **expressed to authorities in the real time**
- Data arrangement, monitoring and reporting along the chain of custody use computerized analysis, which are not only correct but also faster than the paper-based system
- Decrease data repeating process and paperless document, increase potential operation and regulation management, ensure and correct information exchange
- Data are computerized and software is built on identifying potential for official practicing of CoC.

The e-TTS process control and issue assuring document that are transferred by digital database and barcode through new software can map out into 3 supply chain control as; (1) Timber import from boundary/port to sawmill/plant, (2) Harvesting plantation area to sawmill/plant, and (3) Plant/Factory

to customer/export. Data information and certification document reference barcode will be linked and exchanged by a digital database network. (Figure 3)

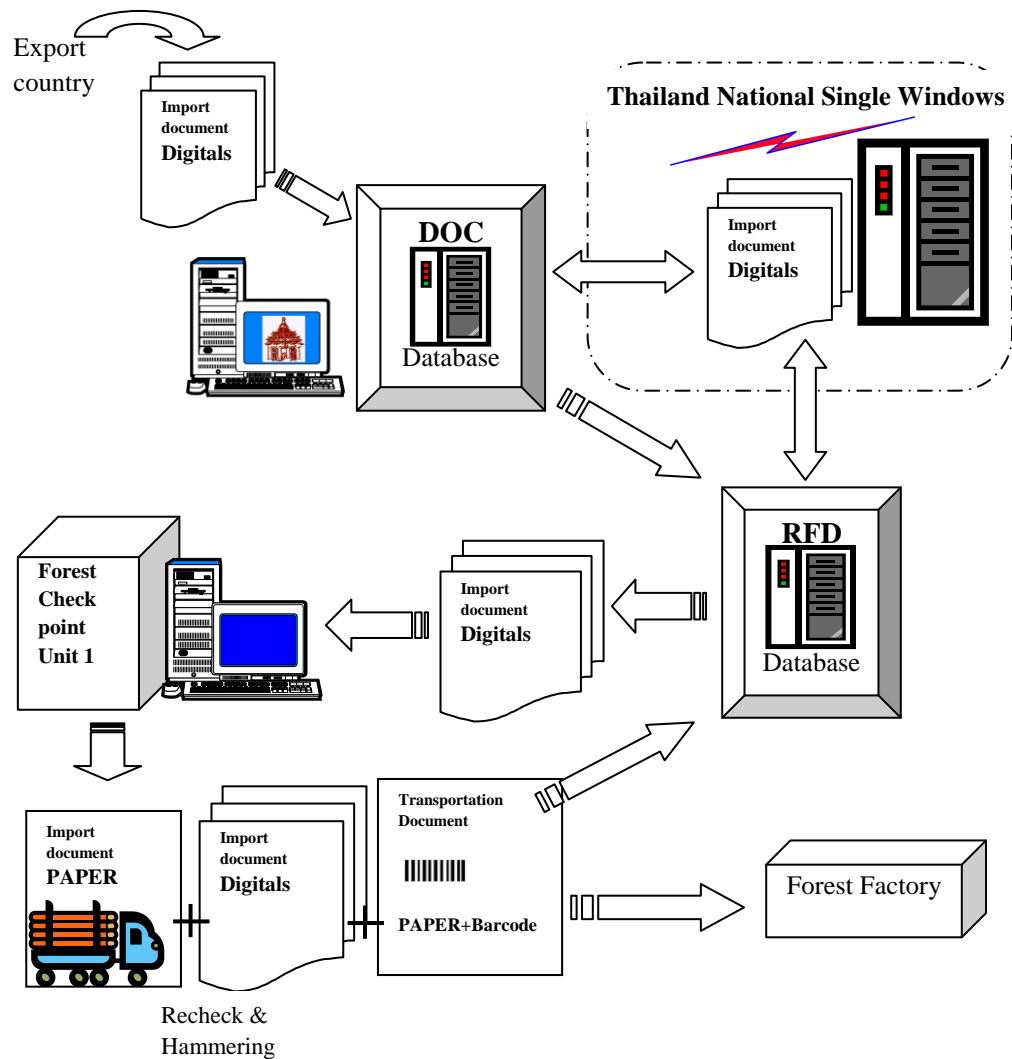


Figure 3 Digital-Base Systems (New System)

Weaknesses of e-TTS

- The identification mark or label of timber, import & domestic used only hammer mark. They are difficult to recheck or clearly verify and unsuitable when timbers are loaded onto the vehicle.
- The e-TTS new system and the computerized software, or any support instruments are essential to have a backup plan for time when technology fails. Recently, RFD has not yet designed any plan for this case.

- The database of plantation license (Forest Plantation Act 1992) and documents related to harvest areas is complex and vary in type.
- The harmonized database between cooperative departments is not completely integrated.
- The timber import verified document for sources of origin from variable countries is out expected on standards for description of information.
- In both the government and the private sectors, their activities associated with the CoC system are generally poor in practice.
- Furthermore the new system still needs to be continuously evaluated and improved in crucial points what will directly influence on practice and management.

Recommendations

Timber tracking system development is an important step to approach the applicability, law enforcement regulation of international trade and SFM in Thai forests. The initial focus by government appears to have been a technical one: to put in place the forest control technology (timber tracking) that would allow for the validation of legal timber. The challenge now is to achieve the right institutional mix to ensure a credible verification system and to establish the legal basis of the system itself. Hence the high priority of CoC/ timber tracking system that needs to be given to establish all components of the entire system under legal statute. Considerable investment of government has been made to establish a national timber verification system in Thailand. RFD within the government strategies is the leading initiative that aims to set in place the necessary institutions, processes and structure that will meet the needs of independent verification, and specifically the demands of the international agreement. Nevertheless, the e-TTS was still incompletely running to practice the new control system in order to approach the goal given. The core problems surrounding the function of the project arise from both difficulty of cooperation amongst varying staff and complications to understand the fundamentals of CoC performance to apply to the Thai forest sector. The problems that need to be concerned are as follows:

For Thailand's timber tracking system bodies:

1. Lack of leading auditors
2. Lack of coordination person among relevant departments
3. The existence of big differences in the quality certification scheme between Thailand and other countries

For Thailand's enterprises (suppliers):

1. Certain enterprises do not understand the importance of the quality system certification in improving the effectiveness and competitiveness of their enterprises
2. To keep the continuity of the quality system's supervision since some enterprises are only for getting a certificate
3. Do not keep the close connection with the national certification bodies

Calling for a New Approach

Four key lessons have already emerged from this research, which may be of interest to other steps that are considering continuous developing on timber verification and certification. **The first** is that the current state monopoly over the forest control system has presented many challenges in terms of improving accountability and transparency within the sector. **Second**, commitment from government is essential to set the right logistic management for timber products and to ensure the equitable distribution of law enforcement, upon which the sustainability of the sector ultimately revolves. **Third**, a process mutually acceptable to all the main stakeholders will likely necessitate a phased implementation of the timber verification system. The introduction of a credible system is not a short-term measure and should be measured in years, certainly not in months. **Fourth**, the initial focus of government to improve technical aspects of the control system needs to give way to a more degree approach, that acknowledges – and addresses – the political dimension of reform within the forestry sector.

For Royal Forest Department:

To approach the goal of CoC performance and adopt to demonstrate timber/ timber products are both legal national and international trade, the activities that need to take action are:

- To build backup system when technological fail are occurs.
- To issue head specifically office to evaluate, report and audit operation of system
- To depute suitable cooperator between cooperative organizations
- To provide Practical Training and Class room Training for staff
- To dispose comprehensive documentation to describe accurate procedure, clear responsibility and auditing processes
- To promote and extend understanding of CoC's application and rectification for stakeholders revolving.

For the Government of Thailand:

There are 2 main factors that lead to goal achievement of the National Plan for the Development of E-logistics Network and Governance Service for Import-Export Project. **The first** is cooperation between government organizations and private sectors; importer-exporter, factory owner, Thai Furniture Association, etc. The Government has a duty to support and promote what process is carried out to facilitate actions under the authorization and Law & Act regulation. The private sectors drive mechanisms for the chain of custody in order to meet requirement of international trade and customers. **The second** is to continue both strong policy of government and suitable long-term plan. In addition, the administrator should give delegate authority to evaluate and examine in order to report the proceedings what is going on both quarterly and annually. The next step process will improve to achieve other appropriateness for national master plan proceedings.

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