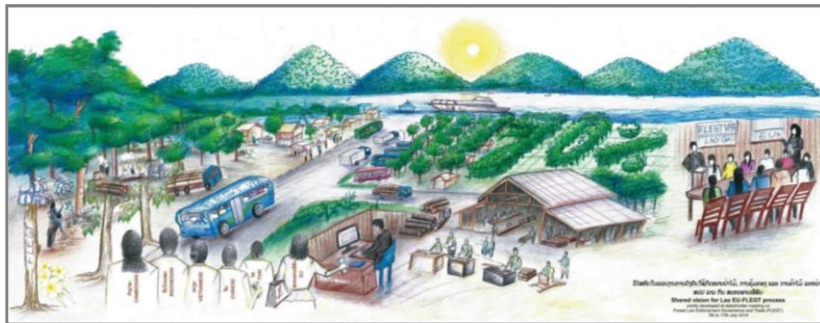


Presentation Supply Chain Controls, Verification and related Database Management

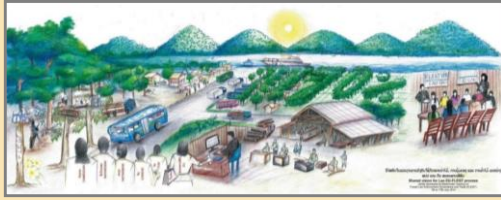


3rd National Steering Committee Meeting Lao-EU FLEGT VPA process

Champasack Grand Hotel, Pakse, Champasack Province, 19 January 2018

Overview of Presentation

- **Part 1: Introduction and basic concept**
- **Part 2: Supply chain controls, and related verification and information management**
 - Example Timber from PFAs, conversion areas
- **Part 3: Model information management system**
 - For supply chain controls and related verification



INTRODUCTION AND BASIC CONCEPT

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Purpose

1. Timber Legality Assurance System (TLAS)

- Provide inputs for preparation of TLAS annex of the VPA
- Provide inputs for data management within an operational TLAS

2. PMO 15 (key requirements will be embedded in TLAS)

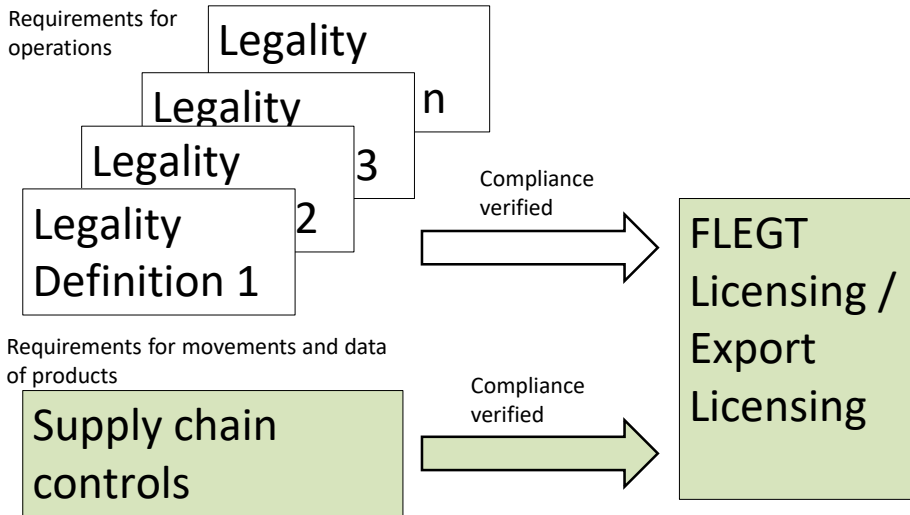
- Provide inputs for monitoring of implementation of PMO 15, e.g.
 - Surveillance (pre-harvest inventory) and inclusion in the annual harvesting plan (Quota)
 - State agencies organize harvesting operations
 - All logs are auctioned
 - All logs are processed domestically

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Timber Legality Assurance System TLAS

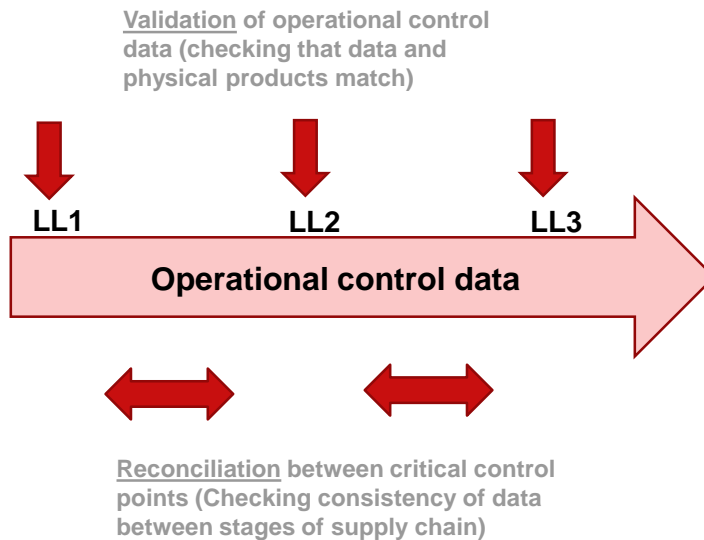


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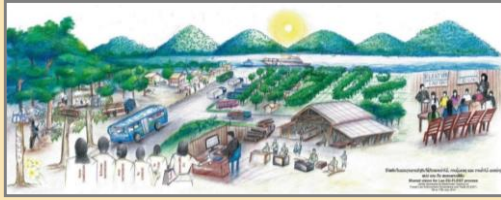
Compliance Verification



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SUPPLY CHAIN CONTROLS AND RELATED VERIFICATION

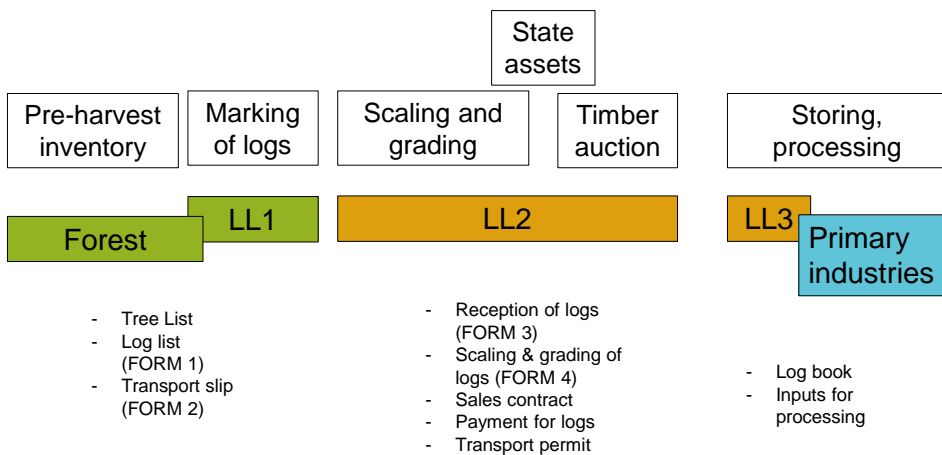
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Overview



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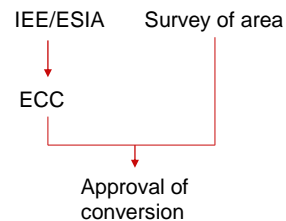
Legality of forest source

1. PFA

- Management in accordance with a long term plan (Forest Management Plan)
- Pre-harvest inventory carried out
- Inclusion in annual harvesting plan (quota)

2. Conversion

- Approval of conversion & “project”
- Pre-harvest inventory carried out
- Inclusion in annual harvesting plan (quota)



Example Pre-harvesting inventory

1. PFA

- Enumeration of trees as required by regulations (species, diameter and height)

2. Conversion

- Enumeration of trees with dh1.3 10 cm or more (species, diameter and height)

- **Marking of trees**
- **Selection of trees for harvesting**
- **Defining felling direction**
- **Design of skidding tracks**

Challenges

- Not applied in practice on conversion areas -> sample-based inventory for HPP (10%)
 - No systematic verification
- > **Revision of Regulation 112**



Example Log Landing 1

1. Marking of logs

- Identification number
- Length

2. Log List (FORM 1)

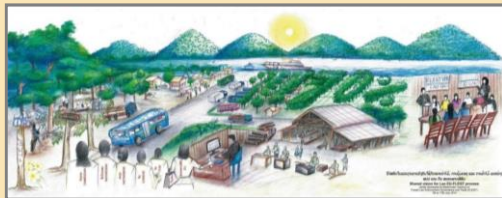
- Log identification number
- Tree species
- Length

3. Transport slip (FORM 2)

- As above

Challenges

- *May not be systematically applied for logs for conversion areas -> transportation of non-marked logs to Log Landing 2*
- *No systematic verification*



MODEL INFORMATION MANAGEMENT SYSTEM



What should the system do?

1. Capture and integrate data at critical control points
2. Incorporate data on verification
3. Analyse the above datasets (e.g. detect irregularities)
4. Generate reports (e.g. for administration)
5. Structure

Component 1
Forest-LL3

Component 2
LL3-processing

Component 3
FLEGT licensing



Data entry & transfer

1. Hardware
 - Laptop, handheld computer, smartphone
2. Software
 - Program for data entry
 - Detection of errors in data entry
3. Data transfer
 - Transmission of data from data collection device to server
 - Connectivity (access & quality)





Centralized data management

1. Databases & Servers

- Entry of data, incl. error detection
- Queries (e.g. SQL) for analysis and reporting
- Interfaces, connectivity

2. Maintenance & support

- Hardware
- Software

3. Other

- Backups
- Security (viruses, spyware, attacks etc.)
- Electricity, cooling etc.

Supply chain data is managed by entities in different administration lines (MAF, MOF and MOIC)

Access to data, analysis and reports can be restricted

Who to manage the system?
E-government could provide the IT structure

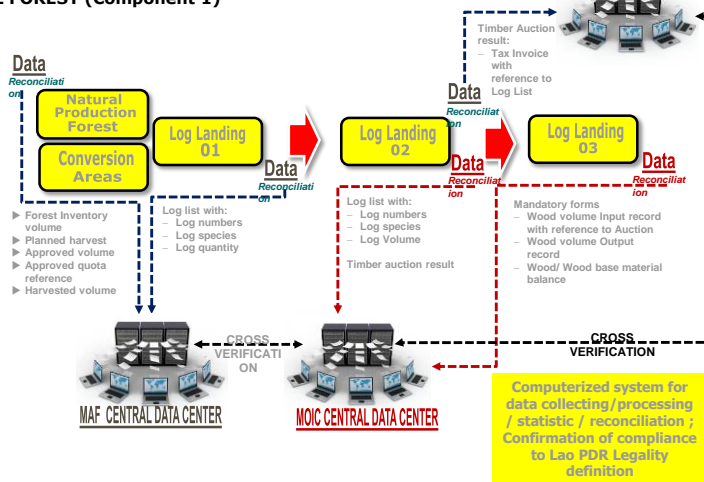
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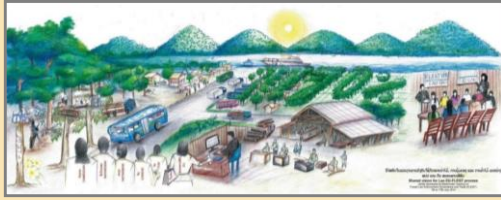
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Data Management System for control of supply chain for timber from NATURAL FOREST (Component 1)





System overview (Example)



Data analysis

- **Validation**
 - Consistency of operational control data and inspection data
- **Reconciliation**
 - Consistency of operational control data between stages of the supply chain, including payments of royalties and taxes
- **Tracking of logs**
 - From LL2 (LL3) back to stump/harvesting compartment



Validation- Scaling and grading

Operational control

Log	Volume (m3)	Grade
1	3.5	A
2	2	A
3	1.5	C
4	1.7	B
5	1.8	C
Total	10.5	

Verification

Log	Volume (m3)	Grade
1	3.3	A
2	2	A
3	1.7	B
4	1.7	B
5	1.7	C
Total	10.4	

	Difference		Acceptability
Volume	0.1	0.95%	<input checked="" type="checkbox"/>
Grade	1	20%	<input type="checkbox"/>



Reconciliation - Trees & logs

Pre-harvest inventory

Tree	Volume (m3)
1	7.1
2	5.2
Total	12.3

Scaling & grading

Log	Volume (m3)	Grade
1/1	3.1	A
1/2	2.8	A
1/3	1.0	B
2/1	3.2	B
2/2	1.8	C
Total	11.9	

	Difference		Acceptability
Volume	0.4	3.3%	<input checked="" type="checkbox"/>

Reports & Charts

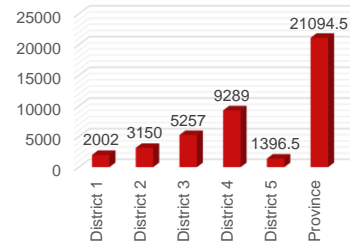
FORM 4

Log number	Tree species	Length	Diameter	Volume	Grade
1	Dipterocarpus	6.1	60	6.90	B
2	Pterocarpus sp	6.6	55	6.27	B
3	Pterocarpus sp	5.9	60	6.67	B
4	Pterocarpus sp	7.8	70	12.00	A
6	Shorea sp	5.6	63	6.98	A
7	Shorea sp	6.3	59	6.89	A
8	Dalbergia sp	5.8	61	6.78	C
9	Dalbergia sp	6.3	68	9.15	A
10	Dalbergia sp	6.5	64	8.36	B
Total				69.98	

Log production

	Logs	Volume (m3)
District 1	572	2002
District 2	900	3150
District 3	1502	5257
District 4	2654	9289
District 5	399	1396.5
Province	6027	21094.5

Log production (m3)



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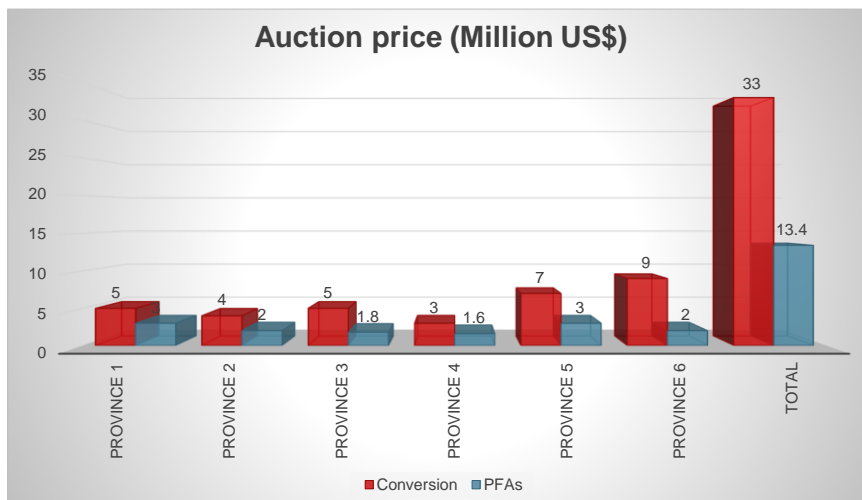
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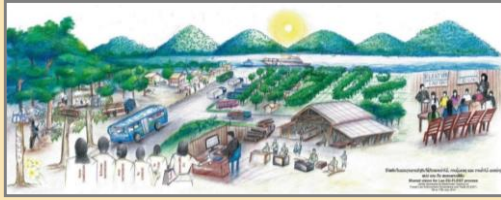
Reports & charts



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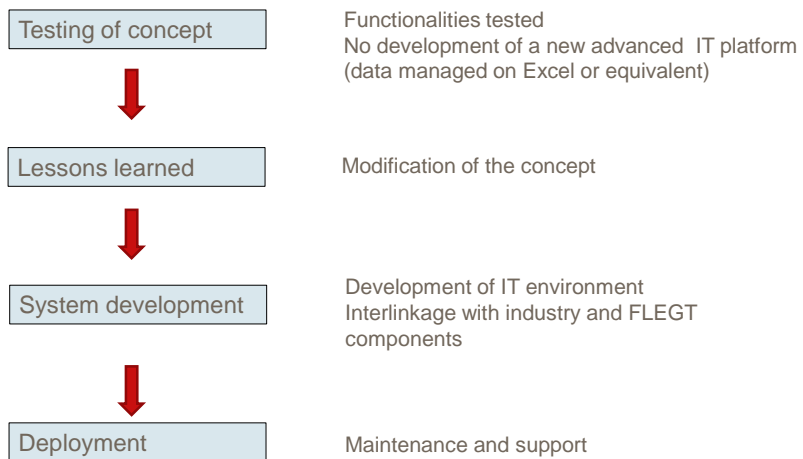
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STEPWISE IMPLEMENTATION



Implementation stages





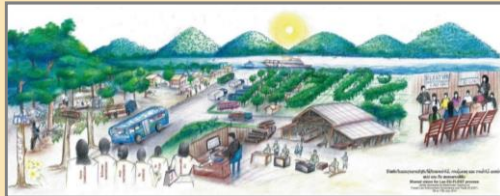
Testing of concept in a pilot province

- **Scope: operational control data from conversions and PFAs**
- **Data collection & entering**
 - Data recorded on paper-based forms
 - Manual entering into Excel-sheets
- **Data analysis & report generation**
 - Development of functionalities and templates for
 - Data analysis
 - Reports
 - In cooperation with PAFO, POF, POIC

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Q&A



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Published by
Deutsche Gesellschaft für
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Registered offices, Bonn and Eschborn, Germany
Support to the Lao EU-FLEGT process (ProFLEGT)

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