

**STUDY FOR UNDERSTANDING  
TIMBER FLOWS & CONTROL**

**IN 3 FLEGT PILOT PROVINCES WITH  
SPECIAL REFERENCE TO  
ATTAPUE PROVINCE**

By

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## Study Objectives

- Identify and map out the practical implementation of timber supply chain of different timber sources such as production forest, conversion areas (infrastructure projects etc.), industrial plantation/smallholder plantation, and village forest from harvesting to export in Khammoune, Sayaboury and Attapeu province

## Methods

- Collected recorded and statistic data
- Interviewed with Key informances
- Analysed data and cross check with other data sources.
- Studies in Sayaboury and Khammoune finalized in March 2015 and presented in a multistakeholder workshop in April 2015
- Attapeu study started in October 2015 and ongoing until January 2016

## Study team

Dr. Kaisone Phengsopha–Team leader

Mr. Duangphachanch Souvanxay- Assistant

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- Support by:
- Staff of DOFI (FLEGT Standing office) and ProFLEGT project

## Preliminary Results Attapeu

- National and timber supply
- Provincial forests
- Provincial timber supply
- Processing and exports

## Results: National quota allocation

Table 1. National Quota Allocation: Central Government quotas to provinces for the period 2010/2011 and 2013/2014 (Source DOF 2011, 2014)

| Province       | 2010/2011 (Source: DOF 2011)   |                               |                            |                                     |                                |                                       |                                  | 2013/2014 (Source DOF 2014)     |                               |                       |                            |                                     |                                  |                                |
|----------------|--------------------------------|-------------------------------|----------------------------|-------------------------------------|--------------------------------|---------------------------------------|----------------------------------|---------------------------------|-------------------------------|-----------------------|----------------------------|-------------------------------------|----------------------------------|--------------------------------|
|                | Planted trees(m <sup>2</sup> ) | Natural Forest (Annual quota) |                            | Special quota                       |                                |                                       | Total Vol. (not including stump) | Planted trees (m <sup>2</sup> ) | Natural Forest (Annual quota) |                       | Special quota              |                                     | Total Vol. (not including stump) |                                |
|                |                                | PPA (m <sup>2</sup> )         | Uprooted (m <sup>2</sup> ) | Balance 2009/2010 (m <sup>2</sup> ) | Central govt (m <sup>2</sup> ) | Provincial governor (m <sup>2</sup> ) |                                  |                                 | Stump                         | PPA (m <sup>2</sup> ) | Uprooted (m <sup>2</sup> ) | Balance 2012/2013 (m <sup>2</sup> ) |                                  | Central govt (m <sup>2</sup> ) |
| Luangnamtha    | 500                            |                               |                            |                                     |                                |                                       | 500                              |                                 |                               |                       | 6,130.00                   |                                     |                                  | 6,130.00                       |
| Oudomxay       | 500                            | 100                           |                            |                                     |                                |                                       | 600                              |                                 |                               |                       |                            |                                     |                                  | 0.00                           |
| LuangPrabang   | 4,000                          |                               |                            |                                     | 1,505                          | 1,000                                 | 5,505                            |                                 |                               |                       | 621                        |                                     |                                  | 621.00                         |
| Savaboury      | 1,850                          |                               |                            |                                     |                                | 1,900                                 | 1,850                            |                                 |                               |                       | 1,736.70                   |                                     |                                  | 1,736.70                       |
| Bokeo          | 1,000                          |                               |                            |                                     |                                |                                       | 1,000                            |                                 |                               |                       |                            |                                     |                                  | 0.00                           |
| Xiangkhouang   |                                |                               | 24,000                     |                                     |                                |                                       | 24,000                           |                                 |                               |                       |                            |                                     |                                  | 0.00                           |
| Vientiane      | 1,000                          |                               |                            | 1,754                               | 300                            |                                       | 3,054                            |                                 |                               |                       | 2,420                      |                                     |                                  | 2,419.80                       |
| Bolikhamxay    | 150                            |                               | 80,020                     | 4,048                               | 2,626                          | 525                                   | 86,844                           |                                 |                               |                       | 15,853.70                  |                                     |                                  | 15,853.70                      |
| Khammouane     | 10,000                         | 9,722                         |                            | 1,105                               | 4,900                          | 3,800                                 | 25,727                           |                                 |                               |                       | 4,972                      |                                     |                                  | 4,971.70                       |
| Savannakhet    | 200                            | 4,400                         |                            | 15,015                              | 570                            |                                       | 20,185                           |                                 |                               |                       | 30,220                     |                                     |                                  | 30,220.40                      |
| Salavan        | 1,120                          | 3,034                         |                            | 264                                 | 2,430                          | 150                                   | 6,848                            |                                 |                               |                       | 27,213                     |                                     |                                  | 27,213.00                      |
| Champasak      | 500                            | 709                           | 5,799                      |                                     | 492                            |                                       | 7,500                            |                                 |                               |                       | 56,780.2                   |                                     |                                  | 56,780.20                      |
| Xekong         | 780                            |                               | 11,137                     |                                     |                                | 295                                   | 11,917                           |                                 |                               |                       | 9,955.00                   |                                     |                                  | 9,955.00                       |
| Huaphan        |                                |                               |                            |                                     |                                |                                       |                                  |                                 |                               |                       | 13,774.00                  |                                     |                                  | 13,774.00                      |
| <b>Attapeu</b> | <b>200</b>                     |                               |                            | <b>17,664</b>                       | <b>8,056</b>                   | <b>330</b>                            | <b>25,920</b>                    |                                 |                               |                       | <b>19,500.00</b>           |                                     |                                  | <b>19,500.00</b>               |
| <b>Total</b>   | <b>21,800</b>                  | <b>17,945</b>                 | <b>5,799</b>               | <b>132,821</b>                      | <b>31,747</b>                  | <b>11,315</b>                         | <b>8,000</b>                     | <b>221,450</b>                  | <b>0</b>                      | <b>0</b>              | <b>0</b>                   | <b>0</b>                            | <b>0</b>                         | <b>189,176</b>                 |

## Results: Provincial quota

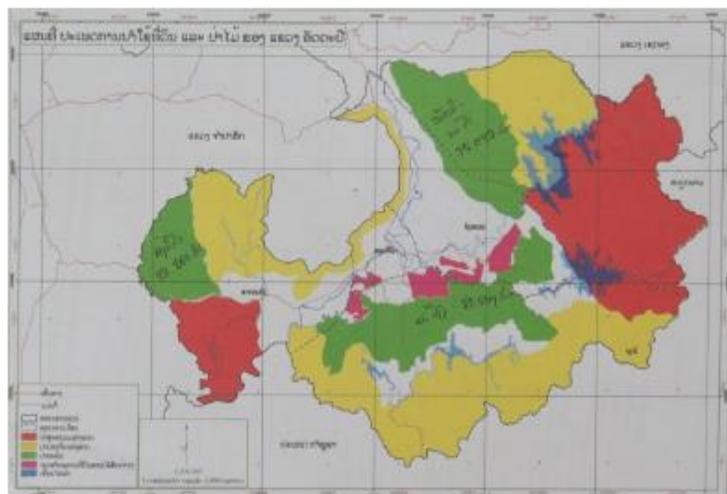
Table 2. Provincial quotas (m<sup>3</sup>) and records of log production (m<sup>3</sup>) in 2011 and update for 2014

| Province     | 2011   |        |                |        |                |        |            |        | 2014  |        |                |        |                |        |            |        |
|--------------|--------|--------|----------------|--------|----------------|--------|------------|--------|-------|--------|----------------|--------|----------------|--------|------------|--------|
|              | PFA    |        | Infrastructure |        | Village Forest |        | Plantation |        | PFA   |        | Infrastructure |        | Village Forest |        | Plantation |        |
|              | Quota  | Actual | Quota          | Actual | Quota          | Actual | Quota      | Actual | Quota | Actual | Quota          | Actual | Quota          | Actual | Quota      | Actual |
| Sainvan      | 2,366  | 1,925  | 4,160          | 10,141 |                |        | 1,050      | 744    |       |        |                |        |                |        |            |        |
| Xekong       | 14,780 | 9,876  | 6,000          | 18,614 |                |        | n.a        | 0.00   |       |        |                |        |                |        |            |        |
| Sayaboury    | 0.00   | 0.00   | 0.00           | 3,255  |                |        | 1,100      | 520    |       |        | 864.83         | 983.23 | -              | -      | 2,300      | 668    |
| LuangPrabang |        |        | 1,505          | 3,327  |                |        | 4,000      | 2,032  |       |        |                |        |                |        |            |        |
| Attape*      |        |        |                |        |                |        |            |        | 0     | 0      | 1318           | 1133   |                |        | 105.54     | 138    |
| Khammoue     |        |        |                |        |                |        |            |        | -     | -      | 24,433         | 10,184 | 12,000         | 8,098  | 10,150     | 336    |
| Totals       | 17,146 | 11,801 | 11,665         | 35,307 |                |        | 6,150      | 3,316  | 0     | 0      | 25,298         | 11,167 | 12,000         | 8,098  | 12,450     | 1,004  |

\*Data for Attape is for the fiscal year of 2014-2015

## Provincial Forests: Attape

Figure 3. Attape province forest areas



## Provincial Forests: Attapue

Table 6. Attapue Province forest areas

| Forest types        | Area (ha) | Current forest (ha) | Potential forest (ha) | Others (ha) |
|---------------------|-----------|---------------------|-----------------------|-------------|
| Production forest   | 201,458   | 135,600             | 42,700                | 24,800      |
| Protection forest   | 358,400   | 215,000             | 110,700               | 32,700      |
| Conservation forest | 208,800   | 176,100             | 15,800                | 16,900      |
| Unclassified forest | 236,642   | 73,600              | 30,300                | 131,100     |
| Total               | 1,005,300 | 600,300             | 199,500               | 205,500     |
| Percentage (%)      | 100       | 60                  | 20                    | 20          |

## Provincial Timber Supply From Production Forests: Attapue

Table 8. Timber supply from Production Forest Areas (PFA) in Attapue Province

| Attapue Production Forest Areas | Area total (ha) | Quota m <sup>3</sup> | PFS Reports (m <sup>3</sup> ) | Harvest 2013/2014 (ha) | Quota Type |
|---------------------------------|-----------------|----------------------|-------------------------------|------------------------|------------|
| Namkong                         | 88,559          | 0                    | 0                             | n.a                    | n.a        |
| Nampa-Houayvy                   | 75,037          | 0                    | 0                             | n.a                    | n.a        |
| Baengvilay                      | 37,862          | 0                    | 0                             | n.a                    | n.a        |
| Total                           | 201,458         | 0                    | 0                             | n.a                    | n.a        |

## Provincial Timber Supply From Infrastructure areas : Attapue

Table 12. Timber supply from Infrastructure Areas in Attapue (2014-2015)

| Attapue Province                     | Area (ha) | Quota (m <sup>3</sup> ) | PFS reported (m <sup>3</sup> ) | Harvest (ha) | Quota type    |
|--------------------------------------|-----------|-------------------------|--------------------------------|--------------|---------------|
| <b>Dams – total</b>                  |           | <b>113,318</b>          | <b>188,074.11</b>              |              |               |
| Transmission line in 3 districts     |           | 32,000                  | 3,625.85                       |              | Central quota |
| Transmission line Sanamxay District. |           | 1,318                   | 97.83                          |              | Central quota |
| NamKong Dam                          |           | 45,000                  | 141,022.23                     |              | Central quota |
| Xekhaman 1 Dam                       |           | 35,000                  | 43,328.20                      |              | Central quota |
| Unspecified areas (total)            |           |                         | 4,198.03                       |              |               |
| Phongsab Company                     |           | -                       | 2,828.10                       |              | Local quota   |
| Mr Saykham                           |           | -                       | 682.35                         |              | Local quota   |
| Irrigation ກະຖວາຍ                    |           | -                       | 687.58                         |              | Local quota   |
| <b>Roads – total</b>                 |           | <b>12,380</b>           | <b>20,699.08</b>               |              |               |
| Lao-Cambodia border road             |           | 12,000                  | 20,277.95                      |              | Central quota |
| Xaydonkong Road                      |           | 380                     | 421.13                         |              | Central quota |
| <b>Totals:</b>                       |           | <b>125,804</b>          | <b>212,971</b>                 |              |               |

## Provincial Timber Supply From Plantations: Attapue

| Plantation areas | 2011             |                      |                                | 2014             |                         |                                |
|------------------|------------------|----------------------|--------------------------------|------------------|-------------------------|--------------------------------|
|                  | Area total (ha)  | Quota m <sup>3</sup> | PFS Reported (m <sup>3</sup> ) | Area total (ha)  | Quota (m <sup>3</sup> ) | PFS Reported (m <sup>3</sup> ) |
| Salavan          | 1,892.00         | 1,050.00             | 744.40                         | n.a              | n.a                     | n.a                            |
| Xekong           | n.a              | n.a                  | n.a                            | n.a              | n.a                     | n.a                            |
| Sayaboury        | n.a              | 1,100.00             | 520.00                         | n.a              | 2,299.83                | 668.49                         |
| LuangPrabang     | 27,000.00        | 4,000.00             | 2,052.00                       | n.a              | n.a                     | n.a                            |
| Khammoune        |                  |                      |                                | 23,556.61        | 10,150.00               | 355.65                         |
| <b>Attapue</b>   | <b>n.a</b>       | <b>n.a</b>           | <b>n.a</b>                     | <b>n.a</b>       | <b>105.53</b>           | <b>333.78</b>                  |
| <b>Totals</b>    | <b>28,892.00</b> | <b>6,150.00</b>      | <b>3,316.40</b>                | <b>23,556.61</b> | <b>12,555.36</b>        | <b>1,357.92</b>                |

## Provincial Timber Supply from district and village forests: Attapue

- No data for Attapue though harvests are going through licensing system of permit (details will follow)

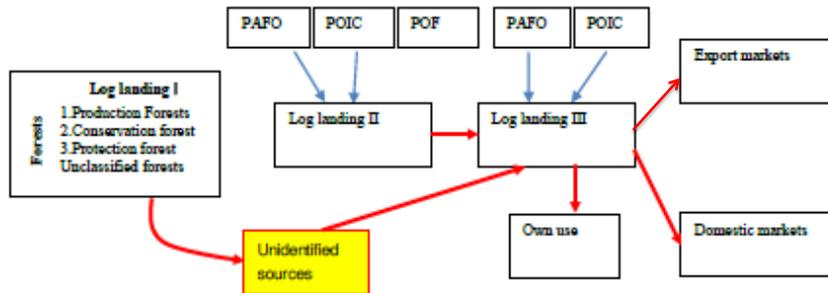
## Wood processing: Khammoun, Sayaboury and Attapue

Table 14. Data on wood processing in Sayaboury and Khammoun and Attapue Province: (source: PoIC Sayaboury, Khammoun 2014 and Attapue 2015)

| Provinces  | Sayaboury                                 |                       | Khammoun | Attapue |
|--|---|-----------------------|----------|---------|
|  | 2011                                      | 2014                  | 2014     | 2015    |
| Number of wood primary processing factories          | 95  | 111                   | 88       | 33      |
| Annual output capacity (estimated)                   | 95,000 m <sup>3</sup> /yr                 | 140,000               | n.a      | 213,305 |
| Log volume received for all mills                    | 266 m <sup>3</sup> ( <i>stumps only</i> ) | 342.53 m <sup>3</sup> | n.a      | n.a     |
| Total Production of semi finished and finished goods | 27,074 m <sup>3</sup>                     | n.a                   | n.a      | n.a     |
| Log Landing 2 - Total volume registered              | 381 m <sup>3</sup> ( <i>stumps only</i> ) | n.a                   | n.a      | n.a     |
| Log Landing 2 - Total number of logs registered      | n.a                                       | n.a                   | n.a      | n.a     |

## Flows of timber from unidentified sources: illegal timbers

Diagram 6: Flows of timber from unidentified source of timbers.



In Attapue forms in LL 3 are applied to monitor timber input

## Controlling timber industries in Attapue

- Attapue has certain capacities and a system in control timber input and output of each industry.
- Each month, staff from DOIC, DAF, and District office of finance forms a committee to check and report timber in the stock of each industry with the district to POIC.
- Once illegal timber is inspected, the industry owners will be panelized. If at the first time, the owner will have to pay a fine fee of 110% of the actual value with first warning. If at the second time, closing down the industry with other heavier penalty would be in action.
- As the system is used only for controlling the volume and species, traceability of the timber sources of final products is not warrant.
- Data is only filled into paper forms and not further processed.
- No regular systematic analysis of the data for provincial summary statistics is implemented.

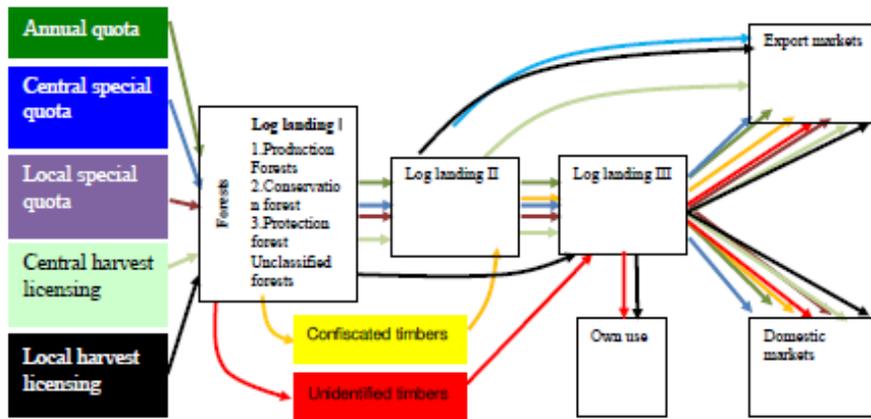
## Timber exports: Attapue

Table 18. Data on timber exports for Attapue 2014-2015 (PoIC data)

| Product             | Thailand                 |                | Vietnam                  |                  | China                    |                  | Total                    |                   |
|---------------------|--------------------------|----------------|--------------------------|------------------|--------------------------|------------------|--------------------------|-------------------|
|                     | Volume (m <sup>3</sup> ) | USD            | Volume (m <sup>3</sup> ) | USD              | Volume (m <sup>3</sup> ) | USD              | Volume (m <sup>3</sup> ) | USD               |
| Logs                |                          |                | 2,851.4                  | 224,696.0        |                          |                  | 2,851.4                  | 224,696.0         |
| Semi-finished goods | 337.71                   | 112,455.06     | 10,129.56                | 3,833,171        | 420.5                    | 118,803.2        | 10,887.8                 | 235,091.4         |
| Finished goods      | 2,066.7                  | 518,504.2      | 6,272.7                  | 3,659,803.1      | 2,964.59                 | 3,033,996.2      | 11,304.1                 | 7,212,303.4       |
| <b>Total</b>        | <b>2,404</b>             | <b>630,959</b> | <b>19,254</b>            | <b>7,717,670</b> | <b>3,385</b>             | <b>3,152,799</b> | <b>25,043.2</b>          | <b>11,501,429</b> |

The reported export data is less than 1/4 of the reported actual harvest from Infrastructure areas which is about 213,000 m<sup>3</sup>.

## Flows and their traceability



## General Recommendations

- **Provincial, district and village forests:** these can be a vital source of timber for local timber companies. To ensure a sustainable supply, there needs to have a vigorous managing system that include a clear map of forest in each village as well as annual records of timber supply

## Recommendations (con't)

- **Plantations:** Although timber from plantations has a bigger share in the total timber supply in the provinces, only timber from plantation that has registered can be considered legal. As there are few farmers registered their plantations, there needs an outreach program to encourage farmers especially those living far away from plantation registration offices. Procedures for smallholder plantation registration should be simplified to ensure the expected outcomes are appropriate to scale and that the costs and the complexity of the process are not excessive both for plantation owners and government agencies
- **Timber processing:** There is a need to specify both in legal document as well in practice which government bureaus in charge with recording and controlling timber input and output from timber industries. Companies should have a minimum Chain of Custody (CoC) in place.

## Recommendations (con't)

- **Exports:** There is a system to record import and export that can be specified at product levels. However, record data is relatively weak and low liability. Staffs of custom bureaus at both central and local level should be well trained in recording, keeping and sharing information. There should have an effective system of sharing information on timber trade among MAF, MOIC, MOF and their line agencies at the local level.
- Exchange and crosschecking with neighboring countries should be introduced as a common practice.
- **Permission system of supply and flow of timber:** Permission system of timber supply through licensing system should be well understood and controlled through registering all logs for commerce and for domestic uses.

## Recommendations (con't)

- **Flows of Lao timber and their traceability:**
  - There need a clear system of recording logs at Log Landing I under all permission systems.
  - All logs whether for sale or for domestic uses should be entered to a formal log registration at Log Landing II.
  - There need to develop a formal recording system for timber input (Log Landing III) and output from the timber processing industries.
  - The forms from POIC in Attapeu can be a starting point to improve the system