



# Myanmar forest sector legality analysis

## Acknowledgements

This report has been developed by NEPCon, a non-profit organisation commissioned by the European Timber Trade Federation (ETTF) through funding provided by the UK Department for International Development (DFID).

We would like to extend special thanks the Forest Department and the Myanmar Timber Enterprise for welcoming us and supporting this study with information and logistical arrangements. The Myanmar Forest Certification Committee with specific mention to U Shwe Kyaw for constructive inputs and guidance. The Myanmar Timber Merchants Association and in particular U Barber Cho and U Aung Win for their valuable insights to the timber industry. Special thanks to Mr Jack Hurd from The Nature Conservancy for his valuable inputs and his company during the field work and to Myint Hilang for the tireless support in locating and translating long reports.

Lastly thanks to all who agreed to talk to us and provide feedback on the development of this report.

### Disclaimer:

This document is an output from an ETTF programme funded by the UK Department for International Development (DFID) and the views expressed do not represent those of the UK Government.

## Table of contents

Acknowledgements .....	2
List of acronyms .....	5
1 Introduction .....	6
2 Methodology.....	7
2.1 Definition of legality .....	7
Compliance thresholds .....	8
Need for sub-division – spatial scale .....	9
Special consideration regarding governance.....	9
Special considerations regarding corruption .....	9
2.2 Using the verifiers .....	10
3 Forest resources .....	10
4 Forest classification .....	12
5 Legal framework relevant to the forest sector.....	13
5.1 The Forest Policy (1995).....	14
5.2 The Forest Law (1992) .....	14
Approvals, Permits, Other Requirements .....	14
Timber Extraction.....	14
5.3 The Forest Rules (1995) .....	15
5.4 National Code of Forest Harvesting (2000).....	15
5.5 The MTE Extraction Manual .....	16
5.6 Community Forestry Instructions (1995) .....	17
5.7 Environmental Conservation Law (2012).....	18
5.8 Protection of Wildlife and Conservation of Natural Areas Law (1994).....	18
Species protection .....	18
Protected areas.....	19
5.9 Other International Environmental Commitments .....	20
5.10 Concluding remarks .....	20
6 Institutions .....	20
7 Forest management.....	22
7.1 The Myanmar Selection System .....	22
7.2 Observations on forest management.....	23
7.3 Control of illegal activities in reserve forest .....	25

7.4	Conflict areas.....	25
8	Timber transport and trade .....	27
8.1	Log marking .....	27
9	Timber Industry .....	28
10	Timber certification and legality verification.....	28
11	Third parties' rights.....	29
11.1	Legal recognition .....	30
12	Risk assessment.....	30
12.1	Corruption.....	31
12.2	Transparency and governance .....	31
12.3	Legal and policy framework.....	32
12.4	Timber trade and traceability .....	32
12.5	Institutional barriers .....	32
12.6	Illegal timber markets .....	33
12.7	Forest management .....	33
	Inventory data.....	33
12.8	Conversion for industrial development.....	33
12.9	Land re-classification.....	34
12.10	Third parties rights .....	34
12.11	Conflict areas .....	34
13	Next step: risk mitigation.....	35
13.1	Mitigating risks.....	36
13.2	Verifying legality .....	37
13.3	Mitigating and verifying risks in Myanmar .....	37
	Implementing supply chain verification .....	38
13.4	A note on the national context .....	39
	References .....	40
	Annex 1: Map of Myanmar .....	42
	Annex 2: States and Regions of Myanmar .....	43
	Annex 3: Timber Extraction Agencies of MTE .....	44
	Annex 4: Overview of MTE logging work process.....	45
	Annex 5: Log Marking overview .....	46
	Annex 6: Chain of custody requirements.....	47
	Annex 7: Endangered species of Myanmar .....	49
	Annex 8: People interviewed.....	51

## List of acronyms

AAC:	Annual Allowable Cut
CoC:	Chain of Custody
DBH:	Diameter Breast Height
DFID:	UK Department for International Development
ETTF:	European Timber Trade Federation
FD:	Forest Department (of MOCAF)
FGMC:	Forest Governance, Markets and Climate
FLEGT:	Forest Law, Enforcement, Governance and Trade
FMU:	Forest management unit
FPJVC:	Forest Products Joint Venture Corporation
FSC:	Forest Stewardship Council
FUG:	Forest User Group
HT:	Hoppus Ton (corresponds to 1.8027 cubic meters)
MFCC:	Myanmar Forest Certification Committee
MoAI:	Ministry of Agriculture and Irrigation
MOECF:	Ministry of Environmental Conservation and Forestry (Formerly known as Ministry of Forestry)
MOF:	Ministry of Forestry (Presently the Ministry of Environmental Conservation and Forestry)
MSS:	Myanmar Selection System
MTE:	Myanmar Timber Enterprises
MTMA:	Myanmar Timber Merchants Association
TLAS:	Timber Legality Assurance System
VFV:	Vacant, Fallow, Virgin Lands Management Law
VPA:	Voluntary Partnership Agreement

## 1 Introduction

This report has been prepared by NEPCon<sup>1</sup> on behalf of ETTF, with funding from the UK Government's Department For International Development, DFID.

The goal of evaluating forest and timber legality issues of Myanmar is to support the development of long term sustainability solutions of the forest and timber industry. With this report ETTF specifically wishes to pinpoint relevant challenges to the Myanmar timber industry with regard to the requirements of the EU Timber Regulation (EUTR).

One important question currently posed by stakeholders is: "Will Myanmar be able to export timber to the EU considering the EUTR requirements and definition of legality"?

Trade sanctions imposed on Myanmar were recently suspended, and focus is now being given to the potential for sustainable management of natural resources, including forests. The Myanmar government and timber industry are showing increased interest in improving the management of forest. Specifically, the Forest Department has invested in a number of staff trainings since 2011.

After a recent visit by ETTF as part of a wider mission organised by the European Forest Institute and the EU Delegation in Bangkok, it is clear that there is a strong will to maintain the forests and develop the local industry. With this in mind the present project will aim to identify:

1. applicable legislation for forest management and transport of timber
2. potential gaps in current forest management practices in Myanmar between the legal framework requirements and actual practice
3. weaknesses in the existing legal framework (laws and regulations), that hinder effective verification of legality and identification of timber origin at the point of export

The current report aims at providing an overview of potential risks of legal non-compliances in the forest sector in Myanmar, and also to provide inputs for how these risks can be managed and support the efforts to enable Myanmar to export legal and, on the long term, certified sustainable timber to the international markets.

It should be underlined that this report does not provide any formal approval of the forest management practices, timber trade procedures, processing and trade systems of Myanmar.

Based on the EU definition of forest sector legality, this report describes issues affecting the risk that timber from Myanmar has been harvested or traded illegally.

NOTE: The current report should be read in concert with Appendix 1, which includes the forest legality framework.

---

<sup>1</sup> <http://www.nepcon.net/>

## 2 Methodology

The present report is based on reviews of relevant documents, laws and rules of Myanmar, as well as interviews with key stakeholders in the country. Also visits to forest management areas were included in the evaluation and provide background for the direct observations referenced in this report. The visit to forest areas was carried out in the Pegu Yomas region (Taungu District). It should be underlined that the direct observations of forest management areas and processing facilities do not constitute a representative sample on a national scale.

### 2.1 Definition of legality

A key obligation of Operators under the EUTR is to identify the level of risk that illegally-harvested or traded forest products are placed on the EU Market. Assigning risks to certain countries or sub-national regions requires careful analysis of the legal framework and compliance level of the forest sector.

In order to evaluate compliance levels, including the risk of gaps between legal requirements and actual practices, it is necessary to clearly define the legal framework for timber harvesting and trade, termed 'applicable legislation' in the EUTR.

The EU Timber Regulation defines illegally harvested timber as follows:

Article 2 (g) 'illegally harvested' means harvested in contravention of the applicable legislation in the country of harvest;

Article 2 (h) 'applicable legislation' means the legislation in force in the country of harvest covering the following matters:

1. Rights to harvest timber within legally gazette boundaries;
2. Payments for harvest rights and timber including duties related to timber harvesting;
3. Timber harvesting, including environmental and forest legislation including forest management and biodiversity conservation, where directly related to timber harvesting;
4. Third parties' legal rights concerning use and tenure that are affected by timber harvesting; and
5. Trade and customs, in so far as the forest sector is concerned.

In order to further specify the above definition, NEPCon has developed the following framework for legality, also used by ETTF and adopted by FSC, which specifies a number of legal sub-categories for each of the above main categories defining a legality framework:

1. Legal right to harvest
  - 1.1 Land tenure and management rights
  - 1.2 Concession licenses
  - 1.3 Management and harvesting planning
  - 1.4 Harvesting permits
2. Taxes and fees
  - 2.1 Payment of royalties and harvesting fees
  - 2.2 Value added taxes and other sales taxes
3. Timber harvesting
  - 3.1 Timber harvesting regulations



- 3.2 Protected sites and species
- 3.3 Environmental requirements
- 3.4 Health and safety
- 3.5 Legal employment
- 4. Third parties' rights
  - 4.1 Customary rights
  - 4.2 Free prior and informed consent
  - 4.3 Indigenous people's rights
- 5. Trade and transport
  - 5.1 Classification of species, quantities and qualities
  - 5.2 Trade and transport
  - 5.2 Offshore trading and transfer pricing
  - 5.4 Custom regulations
  - 5.5 Export taxes and duties
  - 5.6 CITES

NOTE: See Appendix A for a complete version of the Forest Legality Framework including definition of relevant legislation and a national risk assessment for Myanmar.

The analysis carried out for this study includes the following steps:

1. Identify applicable legislation relating to each legal sub-category (e.g. 5.4 Custom regulations);
2. Evaluate level of compliance based on document review, interviews and direct observations in the field;
3. Identify potential risks for each legal sub-category;
4. List possible verifiers used to verify legal compliance that can be used in risk mitigation and legality verification.

The objective of this exercise is to develop a useful framework for evaluating the risk of illegal activities under each legal sub-category. In this study the geographical scale is national, meaning that risk variations are not detailed at a sub-national level. However, where possible consideration has been given to exceptional circumstances in specific states, such as e.g. Kachin and Shan States.

### *Compliance thresholds*

Defining the exact threshold when a risk of illegal action should be considered negligible or non-negligible is a very challenging task involving a certain level of subjective judgement. The following section provides suggestions on how thresholds may be defined.

The risk classification is typically based on a combination of different public sources and consultation with different experts and other stakeholders. The scale and impact of non-compliances are important parameters to consider in reaching a final judgment. Accidental non-compliances with legislation and other requirements happen at forest operations everywhere in the world; such instances do not justify a general classification of a whole country or region as specified risk for legality.

To guide the risk classification of a country or a sub-country region, NEPCon has adopted an approach involving a combination of scale and the negative impact on the production of forest products and other services, the forest ecosystem, the people directly and indirectly affected by forest operations and the society.



As a general rule a country and sub-country region can be considered as low risk for specific legal requirements in case:

- a) non-compliances are temporary lapses, or
- b) non-compliances are unusual/non-systematic, or
- c) the impact of the non-compliances are limited in their temporal and spatial scale,

Conversely, the risk level cannot be considered as low in case the non-conformance:

- a) continues over a long period of time, or
- b) affects a wide area and/or causes significant damage, or
- c) indicates the absence or breakdown of law enforcement, or
- d) is not corrected or adequately responded to when detected.

#### *Need for sub-division – spatial scale*

As mentioned above, the current evaluation focuses on national level issues, but where possible consideration are given to state level issues or to issues relevant only to isolated areas or sectors.

Ideally, detailed risk assessment should be carried out where there are significant differences in conformance level between different types of ownership (e.g. public forest, private forest, industrial forest), between different type of forest (e.g. natural forest and plantations) and/or between different geographical regions.

#### *Special consideration regarding governance*

Overall administrative capacity to oversee effective implementation of laws and regulations is included in the assessment. Governance and the effective implementation of laws and regulations directly influence the risk of illegal logging.

States or Regions (such as Kachin state) with low levels of government control and/or a higher level of corruption in the forest sector would not usually be able to secure effective implementation of laws and regulation. Therefore such states or regions would therefore be categorized as specified risk at a general level. In this regard it should be underlined that a national process of policy and governance reform is currently being undertaken. This process will (hopefully) result in better governance overall in the country. Also governance issues are important to the FLEGT process, which is currently being discussed for Myanmar.

#### *Special considerations regarding corruption*

In countries considered as high risk for corruption (countries with a CPI<sup>2</sup> less than 50) there is an increased risk that forest operators can have obtained required permits and licenses through bribery. Such instances would therefore not be considered in compliance with legal requirements. Myanmar with a score of 15 is expected to have significant challenges with corruption.

Corruption can be a challenge to evaluate. It is often not covered by reliable official statistic and can take place in many different ways.

---

<sup>2</sup> The Corruption Perception Index or CPI is a measure of the perceived level of corruption in a country. A list of CPIs covering most of the world's countries is published annually by [Transparency International](#). The threshold for 'high level of corruption' at 50 used in this report is widely accepted for estimating corruption in the forest sector. It is also used by e.g. the Forest Stewardship Council.

Special attention needs to be given to legal requirements requiring approval from public bodies, such as harvesting permits, concession licenses, custom declarations etc. as well as in connection with purchase of forest products or harvesting rights from public owned land.

Normally corruption is considered unlikely to vary significantly between different regions within the same country; however, in Myanmar there may in fact be regional differences due to the varying security situation in different regions and states. Illegal logging has been known to provide funds for both sides in some of the conflicts in several of the States of Myanmar.

## 2.2 Using the verifiers

Once the risk has been assessed under each category or sub-category, the verifiers included in the forest legality assessment framework can be used to confirm the presence or absence of the underlying potential legal non-compliance. By evaluating all relevant verifiers, the legality of a forest or supply chain can be assessed.

The framework can thus be used to identify risks of legal non-compliance as well as to verify the legality of forest management and processing.

## 3 Forest resources

Myanmar is reported to contain the second largest area of tropical forest in Asia after Indonesia. According to FAO (2010), 48.3% or about 31,773,000 ha of Myanmar is covered by forest of which 10.0% (3,192,000 ha) is classified as primary forest. However uncertainty exists about the quality and status of the remaining forest and estimates has been made that the statistics do not accurately reflect the actual extend of forest with a commercially viable standing stock. However some estimates put the forest cover to be much less than 48%; as low as 24% (UPI, 20102)

Even if the FAO data may contain inaccuracies, the data does show that Myanmar has seen significant reduction in forest cover during the last two decades. Between 1990 and 2010, Myanmar lost an average of 466,000 ha or 1.2% of its forest cover per year. In total, between 1990 and 2010, it is estimated that Myanmar has lost 19.0% of its forest cover or about 7,445,000 ha. The below figure also clearly illustrates the trend of forests being degraded from closed forest to open forest and other wooded land.

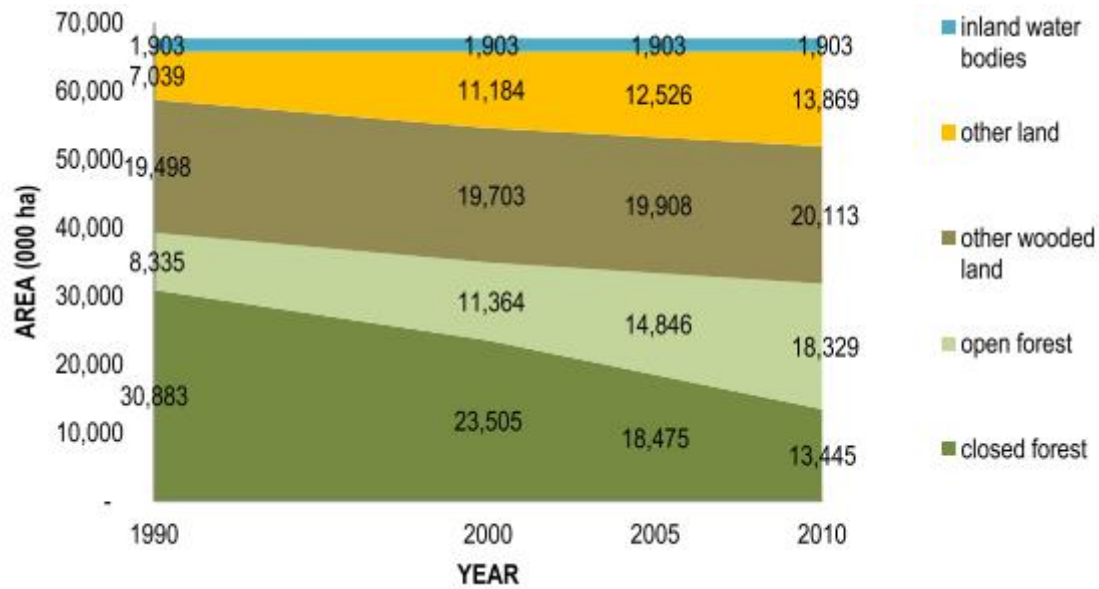


Figure 1: illustration of forest cover changes in Myanmar based on FAO data (figure taken from Tint et al. 2011)

## 4 Forest classification

The entire territory of Myanmar is owned by the state and hence all forest land is formally state property. The responsibility for management of forest resources rests with the Forest Department (FD), a division of the Ministry of Environmental Conservation and Forestry (MOECF).

According to the old 1902 Forest Law, 'Forest Land' was made up of 'Reserved Forests' and 'Unclassified Forests' (UFs). The UFs were not protected and the Forest Department had no legal authority over them; they were therefore potentially at the mercy of whoever wanted to exploit them. The 1992 Forest Law reclassified some UFs as 'Protected Public Forests', thereby giving the Forest Department jurisdiction to manage and protect them.

'Forest Land' is therefore defined in the current Forest Law as 'Reserved Forest' and 'Protected Public Forest'. The 'Protected Areas System' includes Nature Reserves and Wildlife Sanctuaries; these cannot be exploited. Reserved Forest, owned by the State, includes forest managed, by the State, for teak and other hardwood extraction. Much of Myanmar's forest remains as 'Unclassified Forests'.

Teak and other valuable hardwoods are considered to be 'reserved species' in the forest policy. This means that they are owned by the State, and that only the State has permission to harvest them and profit from them.

The forest is classified as areas under what is called the Permanent Forest Estate (PFE), which includes:

1. Reserved Forest
2. Protected areas system (falls under reserved forest)
3. Protected Public Forests

*Table 1: area and percentage of different forest classes (Source: FAO 2010)*

Category	Area (km <sup>2</sup> )	% of total land area
Reserved forest	121,842.91	18.00
Protected public forest	40,949.60	6.05
Protected area system	35,106.85	6.67
Total forest area (PFE)	197,899.36	30.73

The Forest Law 1992 identifies the following types of land, which falls under the authority of the Forest Department; these are the land areas classified as "Reserved Forest":

- a) commercial reserved forest;
- b) local supply reserved forest;
- c) watershed or catchment protection reserved forest;
- d) environment and biodiversity conservation reserved forest;
- e) other categories of reserved forest.

The Forest Law provides the option for the Minister of Forestry to declare land outside the forest reserve as “Protected Public Forest”, among others, for the purpose of “conservation for sustainable production”.

Two other land categories related to forestry fall outside the permanent forest estate: “Public Forest (formerly known as “unclassified forest”) and “waste land”. Forest on both types of land can be subject to timber extraction, if so decided by the MOECFA.

Finally, timber may be harvested by other agencies than MOECFA, such as the Ministry of Agriculture and Irrigation, for example where forest land is being reclassified as agricultural land or other infrastructure development projects.

## 5 Legal framework relevant to the forest sector

In order to evaluate legal compliance in the forest sector one must identify applicable legislation governing specific legal criteria. Below are outlined key applicable laws, regulation, codes and rules for each of the legal categories applied in this analysis (details are found in Appendix A).

An on-going process of policy reform has yet to affect the Forest Policy and Law, however the most recent versions of these have been inspired by forestry-related forums, such as the Rio Conference in 1992, and Myanmar became a member of the International Tropical Timber Organisation (ITTO) in November 1993.

The following list indicates the framework of legislation in Myanmar directly applicable to forest management and transport of timber.

*Table 2: Legislation applying to forest management and timber transport in Myanmar.*

1	Forest Policy (1995)
2	Forest Law (1992)
3	Forest Rules (1995)
4	National code of practice for forest harvesting (2000)
5	MTE Extraction Manual <sup>3</sup> (1936)
6	Community Forestry Instruction (1995)
7	Protection of wildlife and wild plants and conservation of natural areas law (1994)
8	Environmental Conservation Law (2012)
9	International commitments

<sup>3</sup> The MTE extraction manual is a comprehensive document in Burmese, that, as far as is known to the author, has not been translated to English.

In addition, other laws and regulations are also relevant to the forest sector. These are outlined in Appendix A.

## 5.1 The Forest Policy (1995)

The Forest Policy has short and long term measures, strategies and actions. It includes policy on the protection of the forest resource, sustainable forest management, economic efficiency, people's participation, and public awareness. The policy stipulates the need to increase the area of forest reserves to 30% of the overall land area, and the protected areas system to 5% over the short-term, and 10% over the long-term, so as to ensure the security of forest resources

Six imperatives for the forestry sector in Myanmar have been derived in accordance with the forestry principle adopted at the UNCED, political commitments and the goals and objectives of the national development policy:

1. Protection
2. Sustainability
3. Basic Needs
4. Efficiency
5. Participation
6. Public Awareness

While the Forest Policy outlines these key areas it also outlines and details some of the key limitations in the Myanmar government's ability to reach these goals.

## 5.2 The Forest Law (1992)

The Forest Law is based on the following principles:

1. *"To promote the sector of public cooperation in implementing the forestry policy and environmental conservation policy of the government;*
2. *To develop the economy of the State, to contribute towards the food, clothing and shelter needs of the public and for perpetual enjoyment of benefits by conservation and protection of forest"*

### *Approvals, Permits, Other Requirements*

Section 12(a) of the Forest Law requires any person or company wishing to carry out an economic project on forest land in Myanmar to obtain the Ministry of Forestry's prior approval. Moreover, the Forest Rules strictly limit the activities of such person or company to the exact contents of the approval.

### *Timber Extraction*

Permits for the extraction of forest products on a commercial scale are granted, depending on the term of the permit, by the Minister of Forestry (MOECF) (for terms of five years or more), the Director General of the Forest Department (for terms of from two to four years), or state and divisional forest officers (for terms of up to one year).

Persons or companies that obtain permission for extraction of forest produce are obliged to abide by the conditions of the permit, as well as orders, directives, prohibitions and restrictions issued by the Forest Department, and are also responsible for paying the royalties, security deposits and advances set forth in the permit. Many permits require their holders to establish forest plantations or encourage natural regeneration after extraction.

According to the Forest Law:

*18: In permitting the extraction of forest produce the Forest Department shall use the competitive bidding system if the extraction is for commercial scale. However, extraction for the following purposes may be permitted without using the competitive bidding system: -*

*(a): where extraction of forest produce and sales in and outside the country are carried out as State-owned enterprise; ...*

Despite the requirement of competitive bidding for logging rights, the Myanmar Timber Enterprise (MTE) is the sole provider of logging services and in reality is responsible for all timber extraction in Myanmar. However, private enterprises may be sub-contracted to perform parts of the timber extraction, though in this case there are no legal stipulations requiring a competitive bidding system. It is estimated that approximately 10 large and about 100 smaller size companies currently work in Myanmar as service providers to MTE. More than half of the felling operations and most of the haulage work are subcontracted to such contractors.

### 5.3 The Forest Rules (1995)

The Forest Rules were promulgated by the Ministry of Forestry on 1 December 1995 to implement the provisions of the Forest Law.

They contain definitions and provisions on forest reserves, forest management, forest plantations, extraction and transportation of forest products, rights related to driftwood on rivers, seals and stamps for marking timber, timber storage terminals and ports, the establishment of factories, policing responsibilities of forest officers, and offences and punishments.

The Forest Rules deal with reserved forest, the declaration of areas as protected public forest, the management of forest land, the establishment of forest plantations, and the procedures for obtaining permission to extract forest produce. They also cover:

1. Constitution of reserved forest and declaration of protected public forest
2. Management of forest land
3. Establishment of forest plantations.

### 5.4 National Code of Forest Harvesting (2000)

In line with the forest principles adopted at UNCED 1992 and other international obligations, the new Myanmar Forest Policy was promulgated in 1995. FAO published the Model Code for Forest Harvesting in 1996, on which the Myanmar National Code of Forest Harvesting from 2000 is based.

The National Code of Forest Harvesting has the objectives to provide guidelines and prescriptions to all stakeholders so that the forest environment, particularly the remaining stands, forest soil and water are least disturbed during and after the course of forest harvesting, and to maximise economic returns from forests whilst maintaining the regenerative capacity and species diversity of forest, ensuring the health and safety of forest workers and protecting culturally and biologically significant sites.

The Code includes several chapters outlining requirements for forest planning and management:

- Harvest planning, setting planning levels, i.e. long-term, mid-term and yearly operational planning; staffing and training for planning;
- Involvement of stakeholders such as FD and MTE personnel, sub-contractors; elephant owners, local communities, forest dependents and NGOs; and consensus and commitment to plans which should be respected by all parties;



- Management zoning requirements to demarcate protected areas, harvesting areas, buffer strips and water courses, and over-logged areas;
- Tree selection and marking within the bounds of annual allowable cut (AAC) prescribed for each management planning unit, buffer zone demarcation, planning of forest infrastructure including forest roads, water course crossings, log depots and landings, harvesting camps, skid tracts planning and felling direction planning
- Engineering works such as road construction, curves and drainage, watercourse crossing, road maintenance and quarry management;
- Harvesting operation felling methods and cautions to be taken in felling , loading and unloading, log transportation, preliminary postharvest assessment by MTE, harvest completion and report submission and postharvest assessment;
- General hygiene standards of working environment;
- Safety measures for harvesting operations, for mechanical and animal skidding, and fire protection;
- Possible future harvesting systems such as heli-logging and harvesting of trees from home gardens and other non-forest areas.

## 5.5 The MTE Extraction Manual

To the author's best knowledge, the MTE extraction manual has not been translated into English. The following description of the contents is therefore based entirely on ZU Khin Zaw's paper from 2003 (Zaw, 2003).

The Manual is an important tool for the MTE in their extraction work as the manual sets out the detailed working procedures.

The following contents are part of the Manual:

1. Institutional:
  - (a) Gazetted officers
  - (b) Duties and responsibilities of extraction officials
  - (c) Confidential reports on staff and sub-ordinates
  - (d) Regulations for sub-ordinate staff and clerks
  - (e) General provisions
2. Timber Extraction Methods:
  - (a) Extraction procedures
  - (b) Controlled extraction compartments
  - (c) Rafting programmes
  - (d) Neap counting and statistics
  - (e) Railing of hardwood logs
3. Organisation and Departmental Instructions:
  - (a) General
  - (b) Correspondence (Staff Duty)
4. Elephants:
  - (a) Working elephants
  - (b) Baggage elephants
  - (c) Annual rewards to elephant riders
  - (d) Mahouts of dead elephants
  - (e) Theft or loss of elephant
  - (f) Branding departmental elephants
  - (g) Anti-anthrax vaccination of elephants
  - (h) Training of calves at heel
  - (i) Transporting elephants across large water bodies such as big rivers
  - (j) Taking blood samples of elephants
  - (k) Elephant stud books

- (l) Registration of elephants
- (m) Medical treatment of elephants
- (n) Medicines for elephants
- 5. Communication and Building
  - (a) Transport vehicles
  - (b) Buildings and household furniture
  - (c) House rent
  - (d) Standard specifications for forest buildings
- 6. Reports and Returns
  - (a) District monthly reports
  - (b) Annual reports
  - (c) Annual returns and final accounts
  - (d) Work diaries
- 7. Accounting Procedures
  - (a) Departmental instructions on book keeping
  - (b) Coding system of stores

## 5.6 Community Forestry Instructions (1995)

The Community Forestry Instructions were issued to gain participation of rural communities to “*plant trees in barren lands and to regenerate degraded areas*”. They provide for 30 year tenure periods for user groups to establish and protect community fuel wood and forest product plantations.

Box 1: Myanmar’s community forestry model (source: Tint et al, 2011).

- A group of interested local people (although not necessary *all* village households) together form a Forest Users’ Group (FUG) and select a Management Committee (MC) by consensus.
- The Management Committee identifies the area for Community Forestry and prepares a location map.
- The Management Committee then applies, via the Township Forest Officer (TFO), to the District Forest Officer (DFO) for permission to establish a Community Forest
- The Township Forest Officer assesses the suitability and availability of the area, and submits the application to the DFO with the map and recommendations. (For land at the disposal of the State, if it is not forest land, the TFO must also get the approval of the concerned State/Regional authority)
- On getting the DFO’s permission to establish the Community Forest, the Management Committee draws up a Management Plan (MP) with assistance from the FD, and submits the plan to the DFO.
- After confirmation of the Management Plan, the DFO issues a Community Forestry Certificate (CFC) with the relevant rules, etc. attached. The land lease is 30 years initially; extendable and inheritable.
- The FUG Management Committee then establishes the Community Forest. The FUG can harvest timber, fuelwood and NTPFs according to management plan provision, and can sell products surplus to village needs. The FUG must follow the Management Plan, and if they deviate from it DFO can revoke the certificate.
- The Forest Department must provide, free of charge, seeds and seedlings for the first rotation, and necessary technical support.

The instructions constitute a departure from earlier attitudes towards forestry in Myanmar, in that they are constructed from the starting point of community participation and benefit. As such they have a great potential, though they have not yet been very widely implemented. Currently approximately 572 FUGs has been established with very varying results (see Springate-Baginski and Than, 2011).

## 5.7 Environmental Conservation Law (2012)

The law requires the Ministry of Environmental Conservation and Forestry to form a committee to create and carry out specific policies. The law requires the Ministry to perform certain actions, such as to establish a system for monitoring pollution from industry, agriculture, and mining, and to monitor construction projects.

However, the law does not include many specific requirements; it mainly gives the ministry the power to make policies and outlines the role of the Ministry in environmental matters. The law is binding on the government and on government projects, but the Ministry may be required to obtain the government's permission to enforce the law within the jurisdiction of other ministries.

The law mentions important principles, like conserving natural resources and biodiversity and fighting climate change. However, most of its specific guidelines are connected with waste and pollution and do not look at broader problems. The law empowers the Ministry to decide which projects can be carried out and how, but does not require Environmental Impact Assessments. There is no mention of getting the consent of local communities to carry out projects.

## 5.8 Protection of Wildlife and Conservation of Natural Areas Law (1994)

The following is an extract from Clarke, 2010, who has given an overview of the legal framework for wildlife and protected areas.

The Wildlife Protection Act of 1936 provided for designation of wildlife sanctuaries with species-specific conservation objectives, and for three categories of protection for wild animals;

- completely protected;
- protected; and
- seasonally protected, to allow for traditional meat hunting.

Legislation was completely revised in 1994 with issue of the Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law. In summary the objectives of this law are:

- To implement the policy of protecting wild animals and wild plants.
- To implement the policy of conserving natural areas.
- To act in accordance with relevant international conventions to which Myanmar has acceded (see 5.9)
- To contribute towards natural history scientific research.
- To establish zoological and botanical gardens for the purpose of protecting wild plants and animals.

### *Species protection*

The species allocated to the three categories of protection will be subject to review and revision as fresh information becomes available through a programme of biodiversity assessment and inventory has been completed. The current position is as follows.

- Completely protected
  - Mammals 39
  - Birds 50
  - Reptiles 9
- Normally protected
  - Mammals 12

- Birds 43
- Reptiles 6
- Seasonally protected
  - Mammals 2
  - Birds 13

The species included for protection is described in Notification order 583/94, Yangon, 26 October 1994.

### *Protected areas*

The categories of so-called 'natural areas' are defined in the Law described above as:

- Scientific nature reserve
- National park
- Marine national park
- Nature reserve
- Wildlife sanctuary
- Geo-physically significant reserve
- Other nature reserve determined by the Minister

In practice not all these names are used, and (in English translations, at least) other titles appear. The titles used in the protected area list supplied by the Forest Department (plus brief descriptions of what they are) follow.

- National park - Maintained for biodiversity conservation and representativeness. Firm management control. No settlement or resource harvesting allowed. Visitors permitted.
- Marine national park - The same as national park but in marine, island and coastal environments.
- Wildlife sanctuary - Species conservation. No settlement or resource harvesting allowed. Visitors permitted.
- Bird Sanctuary - As for wildlife sanctuary but birdlife conservation is paramount.
- Wildlife Park - Wild animals held in captivity and in the wild but on a fairly small range. For recreation and education. No settlement or resource harvesting allowed. Visitors encouraged.
- Mountain park - Maintained to conserve landscapes, geomorphological features and sites of religious significance. No settlement allowed. Visitors permitted, including pilgrims who are allowed to harvest limited supplies of natural resources – bamboo shoots, mushrooms and edible fruits.
- Elephant range - A means of conserving Asian elephant. Can include villages, and may overlap with other protected areas although the only one that exists at present does not overlap. Covers a range over which elephant herds move.
- 'Protected area' - A misnomer adopted by the Planning & Statistics Division of the Forest Department, which failed to consult WNCD when drawing up the declarations. This is to be corrected, and the areas are likely to become wildlife sanctuaries.

The categories above correspond to the forest class Protected Areas System in the Table 1 above. As described above, the Forest Law of 1992 also covers reserved forests and protected public forests. According to Chapter III of the Law, reserved forests may be designated as follows:

- Commercial reserved forest (for commercial timber extraction)
- Local supply reserved forest (sources of non-timber forest products for local consumption)

- Watershed or catchment protection reserved forest
- Environment and biodiversity conservation forest
- Other categories of reserved forest.

## 5.9 Other International Environmental Commitments

A list of some of the international environmental and forestry agreements to which Myanmar has agreed is given below. Where changes have been made to national legislation in order to implement these conventions, they have tended not to be enforced.

- Convention concerning the Protection of the World Cultural and Natural Heritage. Signatories to this convention are required to identify, protect and conserve sites, which are so culturally or naturally important that they should be considered part of the world heritage of mankind.
- Convention on Biological Diversity. This convention aims to protect plants and animals by promoting conservation and sustainable use. National biodiversity strategy and action plan has been developed<sup>4</sup>
- International Tropical Timber Agreement. This agreement has provisions to encourage sustainable logging but its ultimate purpose is to promote the timber industry.
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).<sup>ss</sup> Although Myanmar acceded to CITES in 1997, there is ample evidence of a thriving wildlife trade between Myanmar and China, Thailand and India.

## 5.10 Concluding remarks

As can be seen from the above overview of the legal framework pertaining to the forest sector, the range of laws and rules is comprehensive. However, most of them are outdated and in some cases contain flexible statements that obscure the intent.

However, the main issue concerning laws and regulations is that their implementation in the forest seems to be inconsistent, and in some cases completely lacking.

## 6 Institutions

The management of the Permanent Forest Estate falls under the Ministry of Environmental Conservation and Forestry (MOECAF), which was formerly included in the Ministry of Agriculture and Forestry.

The MOECAF assumes the primary responsibility for forestry management and policy in Myanmar and has full jurisdiction over forest conservation and exploitation. In the past, the Office of the Ministry has been mostly staffed by persons with a military background; however this has recently changed and most staff now have professional or academic backgrounds.

Six departments are subordinate to the MOECAF: the Forest Department, the Myanmar Timber Enterprise (MTE), the Dry Zone Greening Department (DZGD), the Planning and Statistics Department, the Department of Environmental Conservation (established 2012) and the Institute

<sup>4</sup> <http://www.cbd.int/doc/world/mm/mm-nbsap-01-en.pdf>

<sup>ss</sup> Washington 1973, Myanmar acceded 13 June 1997



of Forestry. These departments work closely with the Survey Department, which carries out mapping for the whole administration.

In total, over 66,000 people are under the supervision of the Ministry; by far the largest proportion of these - about 48,000 - are working for the MTE and a further 15,000 at the Forest Department (Global Witness 2003).

Previously, the National Commission for Environmental Affairs (NCEA), formed in February 1990, was the government's main environmental body. Until it was abolished in April 2011, the NCEA acted as the national focal point for environmental matters, coordinating the work of line ministries and departments and reporting directly to Cabinet.

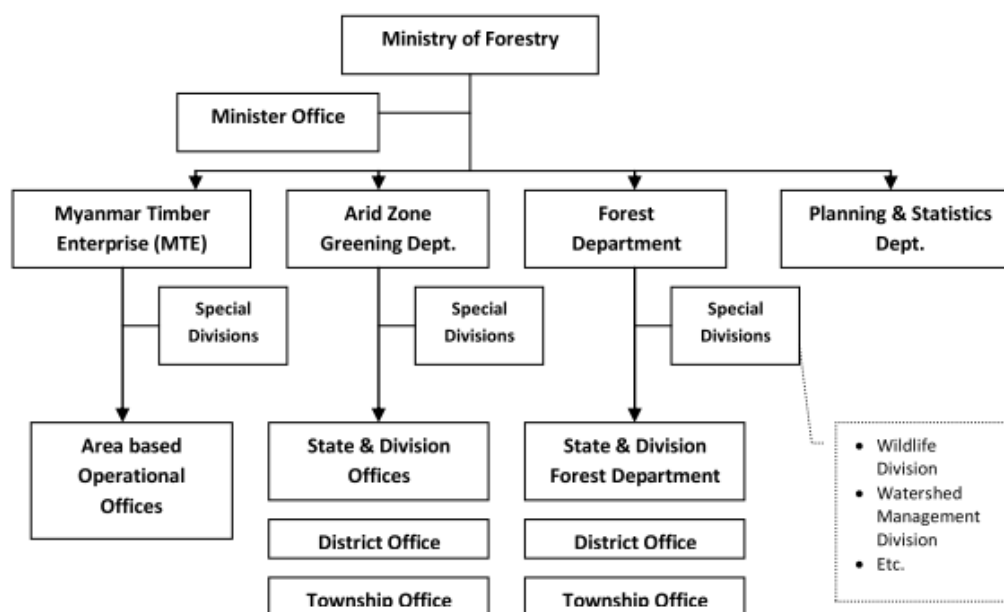


Figure 2: overview of the organisational structure of the Ministry of Environmental Conservation and Forestry (MOECAF) (Source: Woods and Canby 2011)<sup>5</sup>.

Note the sharp division of roles between the MTE and the FD. The MTE has the sole responsibility for extraction and sales of timber – no other roles concerning forest management, environmental protection etc. fall under their obligations. All other forest management activities fall under the FD.

The role and responsibilities of the MTE are outlined in the contract between the President of Myanmar and MTE dated 15 July 1959.

It seems clear from the division of responsibilities that the MTE operates with limited oversight and accountability, since the FD is limited in its resources and capacity to assure that timber extraction is carried out in alignment with the objectives of the Forest Law and the Code of Harvest.

In addition the focus on production targets, disregarding AAC, has resulted in overharvesting as well as harvest practices that do not meet the basic principles of the Forest Law. The system itself

<sup>5</sup> Please note that the Department of Environmental Conservation is not shown on the figure

seems to be constructed in a way where there is little incentive for the main actors to meet those principles.

## 7 Forest management

Forest management in Myanmar has a strong tradition that is still highlighted and being reflected in the documents guiding forest management. It should also be underlined that sustainable forest management is increasingly being seen as a priority by the government and the timber industry and is cited in the Forest Policy and Forest Law.

The commitment of the government and industry to improve forest management will play an important role in moving forest management in Myanmar towards international standards for sustainable forestry.

The historical roots of the Myanmar forest management practices are based on the *Brandis* selection system, which is a selective felling system aimed at sustained yield production. However, the current situation as implemented seems to be far from the theoretical ideal.

### 7.1 The Myanmar Selection System

The forest management system described in the National Code of Harvesting Practices (Ministry of Forestry, 2000) is called the Myanmar Selection System (MSS). The MSS dates back to 1856 with the introduction of the so-called *Brandis* management system, which has gradually evolved to become the prevailing forestry system. The theoretical functioning of the MSS is briefly described in box 2.

#### Box 2: The Myanmar Selection System

Under the MSS, forest lands are organised into felling series, each of which is divided into 30 blocks of approximately equal yield capacity. One block per year is harvested and the whole felling series is worked in the course of a 30-year felling cycle. In each block due for harvest, marketable trees with diameter at breast height (DBH) at or above the fixed exploitable limits (which vary depending on forest type) are selected and cut; the extracted volume must be within the bounds of the annual allowable cut, which is determined for each felling series based on the principle of sustained yield management.

For teak, which is usually girdled and left standing to dry and season for three years before felling, the exploitable limit varies with the type and condition of the forests: 73 cm DBH in moist forests with good growth rates and 63 cm DBH in drier types. The limits for other hardwoods, which are felled green, vary by species. Exploitable limits are determined and fixed at sizes beyond which trees are not expected to put on appreciable increment and where their retention would interfere with the growth of young trees and impede regeneration.

However, some trees at or above the exploitable limit may be retained; where seed-bearers are scarce, for example, superior trees at and above the exploitable limits may be kept as seed trees, while unhealthy trees below the limits can be removed if they are marketable and unlikely to survive through the next cycle. Trees retained at the time of selection are recorded to provide a reliable basis for calculating future yield



The FCCM has developed a useful overview of the different steps in forest management planning and timber extraction, along with examples of relevant forms used in the process (Forest Certification Committee, of Myanmar, 2013).

## 7.2 Observations on forest management

Even though the findings of this study are not based on anything close to a representative sampling of forest types and management areas, some observations were made during a visit to a forest area in Central Myanmar (Taungu District, Pegu Yomas).

It should be underlined that the central highland area of Pegu Yomas is often presented in Myanmar as a model area for harvesting techniques, and that the area, located centrally between Yangon and Mandalay is controlled by the union government. Therefore it cannot be concluded that other areas of Myanmar are controlled and managed at the same level. But the observations showed that even this area faces some serious challenges related to forest management and control of resources.

Even though it was found that Myanmar foresters and industry people have a great interest in managing their forests in the best possible way, it was found that the forest management practices implemented on the ground generally do not correspond very well to the intentions of the MSS as described in theory.

There are a number of issues relating to the observed harvesting practices and the general state of the Reserved Forest areas sighted:

1. Over-harvesting above the assigned AAC was generally admitted to by staff and was an apparent issue in the forest. Both timber of formally legal size limits, as well as sub-limit sizes were observed to be harvested, with very little left on harvesting sites. It is clear that general overharvesting is a major issue in all of Myanmar. This casts doubt on the legality of the whole sector.
2. The use of elephants is frequently mentioned as a measure that reduces impact to the forest. In theory this could be the case in areas of open forest on level land. However the harvest operations observed were carried out in dense forest in a hilly area, where logging focused on other hardwood species than teak (it was mentioned that the teak had most likely been extracted at an earlier stage). The main issue with the observed situation was that the elephants are not capable of pulling logs uphill. Therefore temporary log landings are all situated in lower lying areas (drainage channels and seasonal streams) where skid trails are subsequently constructed in order for bulldozers to extract the logs. It was also found that due to the fact that elephants cannot haul the logs over long distances, the intensity of feeder roads and skid trails appears to be higher than what has been observed in similar forest types only managed using mechanical extraction. *This fact relates to the obligation of the FD to implement the Forest Policy (Forest Law: Chapter IV, 8).*
3. Gullies: as mentioned above gullies and seasonal waterways were found to be heavily impacted and used as skid trails. *This is a direct violation of the Code for Forest Harvesting (Table 4-1).*
4. Residual forest damage was observed to be very high and a number of stems/trees of species that was mentioned to be "un-economical" was left in the forest and pushed into drainage lines/seasonal streams. *This fact relates to the obligation of the FD to implement the Forest Policy (Forest Law: Chapter IV, 8).*
5. Cutting of sub-size trees of valuable hardwood species (*Xylia*) was observed on several instances. The explanation for the removal of unmarked and under-sized trees was that they were either damaged during harvest of primary trees or they were stolen

subsequently to the closure of the compartment. In any case it was found that a significant volume of tress below the allowed diameter had been cut and removed from the forest.

6. Impact of forest extraction operations: Generally the forest was found to be heavily impacted by the timber extraction activities and the residual forest stand was left very open and will most likely transgress into bamboo forest with limited potential for regeneration of timber species. In addition to direct harvest damage it was also clear that significant impact of the forest was caused by extraction of material for use by local communities, such as fuel wood, construction timber, charcoal manufacturing and collection of non-timber forest products (Bamboo etc.).

These direct observations are only indicative of the underlying challenges to the forest management system in Myanmar and may not reflect the situation in all areas being subjected to timber extraction.

One of the most obvious problems is the consistent over-harvesting that has been of widespread occurrence in Myanmar for a number of years. Even though the official forest management system is based on a pre-defined AAC, in reality the actual production of logs has been based on revenue targets set by the Ministry and placed on MTE.

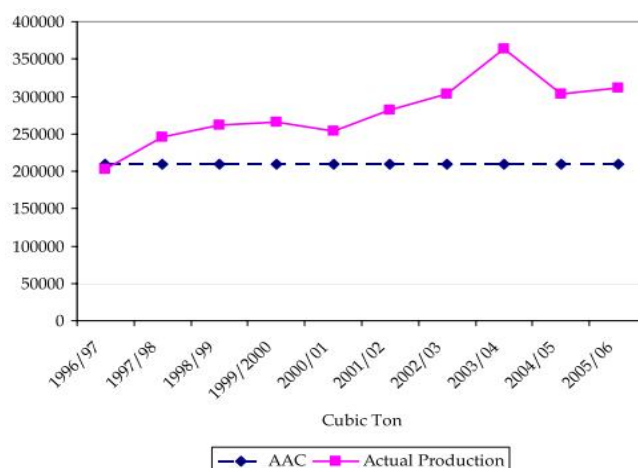


Figure 3: comparison between the AAC and estimated production (FAO, 2009)

This issue appears to be broadly recognised in the Forest Department (FD) and the timber industry, and there is a general openness in the government to discuss it. It was mentioned during the visit that the Work Plan for MTE includes significant reductions in the AAC of Teak as well as a less dramatic reduction in the AAC of other hardwoods.

Table 3: Proposed harvest reductions in Teak and other hardwoods

Year	Teak (HTs)	Reduction %	Hardwood (HTs)	Reduction %
2011-12	371 000	-	1789 400	-
2012-13	314 500	15%	1 440 000	20%
2013-14	296 000	5%	1 100 000	19%
2014-15	277 500	5%	1 100 000	-

2015-16	60 000	58.5%	1 100 000	-
---------	--------	-------	-----------	---

Though it is commendable that plans are being made for reductions in AAC, the question is if the AAC reductions will also be effectuated and hence will result in a reduction in the actual production of logs?

A second question in this regard is the establishment of the AAC. Currently it seems that the determination of AAC is determined based on very broad and generalised information about forest composition on a national scale. This appears to be a quite inadequate basis for setting the AAC.

### 7.3 Control of illegal activities in reserve forest

The Forest Law clearly states that forest products may not be extracted without a permit (§17); however extraction of forest products for domestic (non-commercial) use is permitted without a permit.

There are indications that activities in the forest - such as harvesting of timber, charcoal burning, harvesting of bamboo and other non-timber products, grazing of cattle etc. - are largely uncontrolled. This was confirmed during forest visits, where it seemed obvious that there is limited control with activities in the forest outside the actual harvesting of timber by MTE. Smaller dimension timber thus seems to be harvested in an uncontrolled manner, leading to severe degradation of the residual forest stand.

In addition to harvesting and use of the forest, shifting cultivation and permanent settlement and agriculture within the forest estate were also observed and were mentioned as having significant impact on forest resources. As mentioned earlier, the lack of clear and consistently implemented classification of forest land and other land use classes has resulted in conflicts between the actual land classification and the actual uses, some of which are legally approved, while many are not.

An apparent significant issue in the forest law is the weak requirements of §16 related to the obligations of entities granted rights to establish plantations on forest land. The issue was raised that supposed plantation developers are granted rights to convert forest land with the stated purpose of establishing plantations; however in some cases the developers have clear felled the forest without establishing the plantation. This indicates non-compliance with the Forest Rules (section 36 and 37).

Due to the high level of uncontrolled activities in the forest, there is significant risk that timber harvested in contravention of applicable laws and regulations finds its way to the domestic timber market and is used for domestic processing.

### 7.4 Conflict areas

The fact that ethnic and political conflict has been and in some areas still is an on-going issue, has serious effects on the forest resource. Timber has been used by both sides in these conflicts as a source of income.

There is evidence of uncontrolled logging to support military conflict in many areas, particularly in areas bordering China and Thailand (e.g. Kachin State, Shan State and Wa Self-Administered Zone).

In Kachin, a recent outbreak of conflict has further weakened the Government control of resources and this seems to have led to increased access by illegal Chinese logging operations. It seems to be a fact that illegal harvesting of timber is carried out at a large scale in areas bordering China<sup>6</sup>. The Environmental Investigation Agency (EIA) reports that Chinese companies (under the Chinese State Forest Administration) have direct access to harvesting forests independently within Myanmar – which is a direct violation of the Forest Law (as well as a number of other laws and regulations) (EIA, 2012). Though most of the material harvested in conflict areas may be transported directly over the border to China, there is a risk that such material enter the supply chains that could go to the EU, either by way of production in neighbouring countries, or as timber confiscated in those areas.

---

<sup>6</sup> <http://www.bnionline.net/index.php/news/kng/15024-chinese-timber-resumes-in-kachin-state.html>

## 8 Timber transport and trade

The responsibility of transport, processing and trade of logs and timber in Myanmar is under the control of MTE. The system of transfer of logs and the transfer of log ownership and payments between MTE, contractors and brokers is complex and a factor that adds difficulties in asserting the origin and legality of the legality of the logs at their origin.

MTE has sub-divided the entire country in what is termed Timber Extracting Agencies, which often overlaps the administrative boundaries of regions or districts. In terms of traceability each extraction agency has been allocated a specific sign which is stamped on all logs from that agency (area). See annex 3 for a map of the different extraction agencies distribution.

In theory all logs should be marked with the specific hammer-mark of the extraction agency, enabling traceability to the level of extraction agency. However, the marks are often very difficult to see especially on non-teak species.

One of the most striking features of the trade in teak and other hardwood logs is the system for transferring payments from MTE to extraction companies for their services. For many years, the system has functioned based on a barter principle, where the contractor receives payment for services rendered by earning the right to broker the sale of logs to domestic or foreign buyers. In all cases the formal seller of the timber is MTE, but in case private companies receive the right to broker sales, the sale to the buyer is done by MTE on behalf of the company. Upon final transaction, the revenue from the transaction is transferred from MTE to the broker/extractor upon submission of a formal application for transfer of funds.

While the distribution of costs and revenues for the extraction and sales of timber is relatively complicated, the physical flow of timber from the forest to export markets or domestic industry is limited to official MTE depots. The strictest forms of control are exerted for teak logs, which, theoretically, shall all be transported to MTE log depots in Yangon for re-distribution. This excludes low grade teak logs which can be sold locally.

Even if Myanmar has a framework for a timber tracking system it is still considered that there exist, on a national scale, a significant risk that logs from un-lawful conversion, logs from conflict areas or confiscated logs enters into the material stream. It should be highlighted here that the fact that Myanmar has a long tradition of managing timber flows and have existing systems to track logs means that such systems could relatively easily be implemented.

In addition the question of corruption remains a major factor of risk at all levels of the supply chain, from the forest to export.

An overview of the work process from harvesting to export is included in annex 4. The overview is useful to identify points of transfer of the material and relevant documents that can be used to indicate the materials legality.

### 8.1 Log marking

The marking of logs with marking hammers is a complex matter in Myanmar. In principle, no log can be harvested for commercial purposes in reserve forest without appropriate marks from the Forest Department. Hammer marks are applied to the stem of trees to be felled as well as to the end of logs at various points in the transport of logs from the forest to processing or export.

Annex 5 includes an illustration of the different marks that are required on logs at different stages from pre-harvest to transport of logs.

In addition to these marks, logs are also marked if they are relocated to the log depot in Yangon, with marks relating to the entry of the logs into the depot tally system.

As can be seen from annex 5, log marking is rather complex, involving a number of different steps and different marks with different meanings. In terms of legality it is key that the Royalty Mark is present on the log, since this signifies that all applicable royalties has been paid.

Though the system of log markings is very comprehensive and may potentially add value to a verification and traceability system, it must be underlined that the system is only useful in cases where the integrity of the supply chain and the underlying legality of the material can be assured: an aspect which must be regarded with caution in the case of Myanmar.

In addition, the hammer marks can often be very difficult to decipher, especially if they have not been applied carefully or on other hard woods than teak, where the wood structure is not as dense as teak.

## 9 Timber Industry

The timber processing industry of Myanmar is dominated by saw mills and a limited number of plywood facilities. In general the capacity to process timber further to produce higher value products is limited.

This raises concerns about the sustainability of the planned log export ban (from 2014), as the question must be if Myanmar, and in particular MTE, has the ability or potential to develop a competitive value-added processing industry.

Whilst this does not directly relate to the legal functioning of the timber industry as such, it does have real implications for the potential of a log export ban to work. Without a functioning and effective wood processing industry, it will not be possible to “add value” to timber by processing domestically; thus the incentive to illegally export logs via black market routes (already existing) would increase. There is a clear risk that an ineffectively implemented log export ban and timber industry reform would in fact lead to increase smuggling and export of logs illegally.

As with harvesting, MTE has the sole privilege of operating processing facilities for teak. This naturally benefits the enterprise but this state of monopoly may cause a slower development of higher value processing industries compared to a fully competitive teak log market.

Current initiatives in Myanmar, such as the new foreign investment law, seek to improve the climate for private investment into the timber processing industry in order to develop the possibility for more effective production domestically.

## 10 Timber certification and legality verification

Currently no forest in Myanmar has been independently certified against an internationally recognised standard.

The Forest Certification Council of Myanmar (formerly known as the Timber Certification Council of Myanmar, FCCM) has been established in 1998 and has developed a national standard containing criteria and indicators for forest management certification in Myanmar.



Kevin Woods and Kerstin Canby have written an overview of the certification status in Myanmar for Forest Trends that describes the current status of certification in Myanmar (Forest Trends, 2012)<sup>7</sup>.

The conclusion is that currently there is no international system properly functioning in Myanmar and hence no “off-the-shelf” solution to certification or legality verification in the country.

This fact leads to the final chapters of this report that seek to outline risks identified in the Myanmar forest sector, as well as suggestions for actions that the Myanmar export industry can take to overcome these risks and enable exports to Europe.

## 11 Third parties’ rights

In Myanmar, rural people depend on forests for numerous food items and products – particularly fuel wood, pastures and tree fodder, compost materials, timber, posts and poles for construction & sale, a wide range of non-timber forest products (including wild foods and medicines) which can provide both seasonal incomes and a safety net function.

Forests also provide local people with a range of ecosystem services, particularly water supply for domestic use and agriculture, and also pollination, soil nutrient cycling and storm protection. Poverty and malnutrition are serious problems in Myanmar; therefore, food security needs to be treated as a priority. In the absence of alternate fuels, local domestic firewood needs are high and increase every year. It was estimated to be almost 14 times the official extraction of teak and hardwoods in 2005-2006.

Because forests play such an important role in sustaining livelihoods, there is a long history of their local management as a common property resource. In Myanmar, common property regimes began to be disrupted from the 19th century during the Colonial era, particularly through forest reservation. As the colonial state extended its interest in timber, it took over control of forests, superseding village authority. Village forest areas often became effectively open access leading to a „tragedy of the commons“. However, some level of „informal commons management seems to have persisted. This includes protection of forests on private / community land, grazing lands, sacred groves, woodlots in and around Buddhist monasteries and shrines, and private watershed forests in the Shan State and so on. Sacred groves for instance remain fairly widespread. Communities enforce strict prohibition on any exploitation. These groves therefore form community biodiversity reserves (Tint et al, 2011).

Myanmar has a high ethnic diversity. The country is officially home to 135 major ethnic groups and seven ethnic minority states, in addition to seven divisions populated mainly by the Burmese majority. The main ethnic groups living in the seven ethnic minority states of Myanmar are the Karen, Shan, Mon, Chin, Kachin, Rakhine and Karenni. Other main groups include the Nagas, who live in north Myanmar and are estimated to number about 100,000, constituting another complex family of Tibetan-Burmese language subgroups. To these long-established minorities should be added more recent arrivals, who now constitute substantial numbers in the country, such as the Indians, Pa-O, Wa, Kokang, Palaung, Akha, Lahu etc.

---

<sup>7</sup> [http://www.forest-trends.org/publication\\_details.php?publicationID=3159](http://www.forest-trends.org/publication_details.php?publicationID=3159)



### 11.1 Legal recognition

Within the Constitution of Myanmar, there is reference to the recognition of different ethnic groups- referred to as 'National Races' (Article 22 a). However there are no provisions specifically aimed to protect these National Races in terms of policies implemented by the Government.

While the constitution distinguishes between the legislatures at different levels (states, regions, and self-administered zones) the system of the executive is unified. In other words, the executive at every level is subject to the overriding authority of the President. Another element is the presence of the Tatmadaw (Myanmar Armed Forces) at every level. These factors centralize control over ethnic states.

So, there are no laws or regulations that recognise indigenous people's rights to own or manage forest resources according to indigenous law or rules.

Customary rights are, to some extent, recognised in the forest law by allowing extraction of forest products on a non-commercial scale without permission. The right to extract forest products is owned by the state; villagers can only be given permission to extract limited amounts of products and never Teak trees.

In addition, it is a fact that large areas classified as Forest reserve are actually inhabited and farmed either permanently or used for shifting cultivation by local people - who may be long term residents of the area or may have recently moved there. This fact is a major issue in Myanmar and relates to the issue of overlapping and inadequate land classification (see below).

The Community Forest Instructions provide options for villagers to resume control of resources they already are using in a more formal way. However, the implementation has so far been relatively limited and results very varying. There are many examples showing that community forest rights are being violated, especially to make way for industrial land development (Springate-Baginski and Than, 2011).

## 12 Risk assessment

A key question for the timber industry in the EU is whether or not it will be possible to import timber and wood products from Myanmar and still be in compliance with the EUTR.

The author's immediate answer to this is that even timber with the legally required hammer marks and documents at the point of export will be subject to considerable risk that the original logs have been harvested or transported in ways that are not in compliance with the Myanmar Forest Law or the EUTR.

The risk of timber exported from Myanmar being illegal must therefore be considered as specified in some cases and unspecified in others. Unspecified risk refers to risks that cannot, currently be concluded as low or be specified.

The following section outlines some of the key findings and risks related to timber exports from Myanmar that relates directly to risk of legal non-compliance in the forest sector.

The details of the risk assessment are found in Appendix A. The list below and Appendix A should be used together to provide a full overview of legality risks.

## 12.1 Corruption

Despite recent changes and political reforms, corruption is reported to be endemic and systematic at all levels of society. Therefore Myanmar continues to rank at the bottom of Transparency International's (TI) Corruption Perception Index (CPI)<sup>8</sup>.

Little is known on the specific forms and patterns of corruption in the country, but the scale of the informal and illicit economy suggests strong links and cronyism between the ruling elite and organised crime activities. In the absence of democratic institutions and an effective system of checks and balance, the legal and institutional frameworks against corruption appear inadequate and are likely to be misused for political reasons.

However, the recently elected government has demonstrated its willingness to improve the country's institutional and legal framework and to expand the space for political participation (U4 Expert Answer 2012).

The Forest Law is very specific on the issue of corruption among staff:

*"Any forest staff who, by reason of his power, accepts from any person cash or kind in a corrupt manner or in contravention of the Law and participates and conspires in extracting, moving or unlawfully having in possession forest produce in a wrongful manner shall be punished with imprisonment which may extend from a minimum of 1 year to a maximum of 7 years."* Chapter XII (46).

Through interviews, the author was informed that corruption is considered "normal" business practices, especially related to the use of contractors for the MTE. It was stated that payment of unofficial fees is necessary to be allowed to extract timber. Though this is naturally not direct evidence of corrupt practices, it must be concluded that the risk that there is a significant risk that corruption has played part in attaining extraction permits and during the extraction and transport timber.

## 12.2 Transparency and governance

Related to corruption is the fact that allocation of the rights to extract timber and other contracts entered with sub-contractors for MTE are not open or transparent. The Forest Law (Chapter VI, article 18) states that:

*"In permitting the extraction of forest produce the Forest Department shall use the competitive bidding system if the extraction is on a commercial scale,"*

The below exemption follows directly after:

*'However, extraction for the following purposes may be permitted without using the competitive bidding system: (a) where extraction of forest produce and sales in and outside the country are carried out as a State- owned enterprise;'*

Obviously this exemption implies that since MTE is a state organisation, the requirement for transparency is not applicable, and there are no requirements related to sub-contracting. Thus the awarding of sub-contracts is carried out with no transparency, creating the possibility for cronyism and corruption.

---

<sup>8</sup> <http://www.transparency.org/>

Issues related to governance are difficult to assess, but The World Bank's Worldwide Governance Indicators measure six key dimensions of governance (Voice & Accountability, Political Stability and Lack of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption) between 1996 and the present.

The country report for Myanmar published in 2011 shows Myanmar as scoring low for all criteria: <http://info.worldbank.org/governance/wgi/pdf/c146.pdf>

### 12.3 Legal and policy framework

The policy and legal framework for managing forest resources in Myanmar is outdated and inadequate for ensuring legal and sustainable forest management.

Overlap and conflicts between policies and laws are frequent, both within the forest sector, but also between the forest sector and other sectors, such as agriculture and mining. Though mutually conflicting laws and policies are difficult to assess in terms of legality, the fact that these conflicts are frequent makes it very difficult to get a coherent picture of what constitutes a legal activity in certain situations.

The National Code of Forest Harvesting is comprehensive in describing forest management principles. However, the Code has not been legally promulgated and does therefore not set out any legal requirements - a clear gap in the legal framework.

In terms of forest management and extraction of timber, that leaves the Forest Law and the Forest Rules as the legal framework; these are very generic in formulation and lack the level of detail regarding forest ownership, rights, management, protection and timber production needed to assure an effective implementation of the Forest Policy imperatives.

In conclusion:

1. The current system does not fulfil the intent of neither the Forest Policy nor the Forest Law.
2. Overall the legal and guiding framework for the forest sector would benefit from a thorough revision and consolidation.

### 12.4 Timber trade and traceability

A serious challenge of the Myanmar forest sector is the complexity and apparent lack of transparency of the transfer of logs from harvest site to export. Though the system in principle is simple, transport and ownership transfer are complex and involve multiple transactions and controls where potential exists for corruption.

Another issue pertaining to the transport of logs is the fact that timber from a variety of sources, such as confiscated timber or timber originating from illegal conversion of forest land, may be mixed into the flow of logs. This means that even if logs carry official papers and marks, they may have originated from illegally harvested forests. This point has also been raised by Woods and Canby (2011).

### 12.5 Institutional barriers

The strict division between the obligation to manage forest resources placed on Forest Department and the right to extract timber vested in MTE has created a system skewed towards timber extraction rather than forest management.

According to available estimates, the number of MTE staff is about 45,000, while the staff of DoF may be around one third or one quarter of that. This number does not take into account the fact that approximately 50% of all extraction activities are carried out by sub-contractors to MTE. As such the DoF lacks the capacity and resources to properly carry out its oversight and managerial role.

Finally, due to the revenue expectations from the forest sector over the years, the balance of power clearly shifts away from the regulator (DoF) and towards the MTE and the contractors (private companies) who retain a financial advantage in the business.

The main conclusion to be drawn from the institutional arrangements is that the system as currently formalised and implemented is not capable of meeting the imperatives of the Forest Policy or the requirements of the Forest Law. It also leads to a high risk of corruption and cronyism.

## 12.6 Illegal timber markets

In addition to the unrecorded cross border trade with countries such as China, India, Bangladesh and Thailand, large amounts of timber enter onto the domestic market for unofficially logged timber, in parallel with the official MTE supply.

The size of this unofficial and illegal trade has been estimated to be as large as the legal trade (Global Witness, 2003 and 2009). It is obvious that the relatively weak control of resources enables large scale illegal logging where illegally harvested timber enters the domestic market. This timber is likely also to be mixed with the official production and thus enter the flow of material for international markets, such as the EU.

## 12.7 Forest management

Based on reports on forest management practices and the observations described above, there is little to no reason for having confidence in the capacity of the FD to ensure that forest management rules and regulations are being widely followed on a national level.

Though the theoretical framework for sustained yield forest management exists, the current environment in Myanmar is not conducive to its implementation. There is a significant risk that forest management practices do not meet the intention of the forest policy and comply with the forest law.

### *Inventory data*

Accurate forest inventory data is considered a prerequisite to forest planning and management. It was clear during interviews that many people in the forest and timber sector are aware that the current forest inventory data does not accurately reflect the actual situation; and that better inventory data, on both national and sub-national levels would be of great value to the future management of the remaining forest resources.

## 12.8 Conversion for industrial development

Security of land tenure is a particular problem as there is increasing interest from private companies to appropriate land for commodity production, mining and infrastructure development. However, data is currently limited on this phenomenon.

## 12.9 Land re-classification

Many areas of Reserved Forest land in the country have been converted to agricultural production by smallholder farmers or village settlement without a change in the classification of the land. In many areas, the official status of land classified as Reserved Forest land on existing maps does not match current use. Rural populations that have traditionally used areas of Reserved Forest land for generations are technically in violation of the Forest Law, though local authorities have often granted permission to use these lands in the past.

For large villages (> 50 households) with paddy land located within an area classified as Reserve Forest or Public Protected Forest/Protected Area, the housing area would be de-gazetted and reclassified as Settlement Land under the authority of the General Administration Department, and the paddy land would be de-gazetted and be reclassified as Farmland (land use certificates issued and land registered), while any other agricultural land or forest land that they utilize could come under a CF arrangement. This is according to a recently enacted presidential instruction/guideline (not translated to English).

Apparently different objectives and interests between MOECF and MOAI result in conflicts over land resources. Under the Vacant, Fallow, Virgin Lands law the community could request that the land they are using be reclassified as farmland, or it could be classified as forest land and MOECF could let them come under a Community Forestry (CF) arrangement as part of the land use planning process.

Again, this seems to me to be a grey area because there is no clear process for this type of land use planning, and there are competing interests between different ministries.

## 12.10 Third parties rights

Though third parties rights are not well represented in the laws of Myanmar it is considered that the lack of legal definition, overlapping land claims and existence of armed conflicts constitutes a significant risk that local people's rights to use forest resources (such as described in the CF Instructions and Forest Law) are violated.

## 12.11 Conflict areas

Myanmar was and still is a country with large internal conflicts between ethnic and political groups and the union Government. It is a fact that many areas where armed conflict has or is taking place are also areas subject to illegal logging. Some of the most serious deforestation has occurred in conflict areas, most notably is the case of Kachin state. The illegal logging in many of these areas and trade with neighbouring countries remains a significant issue for the legality of the Myanmar forest sector.

## 13 Next step: risk mitigation

The national risk assessment for Myanmar in [Appendix A](#) and the above conclusions have outlined and specified the risks using the Forest Legality Assessment Framework. Generally it can be seen that risks have been specified at a national level for all applicable legal categories – the risk is non-negligible.

The next question would be if the specified risks are manageable, meaning that it would be possible to mitigate the risk and verify that risk mitigation have been able to control the issues leading to risk of illegal logging.

For this purpose Appendix A also contains a number of verifiers that can be used to evaluate the presence of risk factors and also verify that activities to mitigate risks have been effective.

The process of risk mitigation and verification could follow these steps:

1. Identify specific risks in the supply chain (see Appendix A column H and I)
2. Verify the presence of potential legal non-compliance (this step is optional and may be used where uncertainty exist about the presence of legal violations).
3. Implement mitigating actions (risk mitigating action will vary depending on the risk specified (see examples in table 4)
4. Verify the effectiveness of risk mitigation (use verifiers of Appendix A column J)

*Table 4: examples of specified risks, risk mitigation and verifiers.*

Specified Risk	Mitigation options	Verification
3.3 Risks of violations of harvest regulations related to environmental regulations	Evaluate presence of issue at origin – FMU revise harvest practices to meet requirements depending on the specific areas where non-compliance have been verified.	<ul style="list-style-type: none"> <li>• Management Plan shall be in place and approved by the legally competent authority.</li> <li>• Requirements for pre-harvest planning shall be followed</li> <li>• Harvesting operations shall follow the Code of Harvesting and the Management Plan</li> <li>• Over logged areas shall have been excluded from harvesting</li> <li>• Trees not marked for felling shall not be cut</li> <li>• Buffer zones shall be demarcated on the ground and restrictions followed</li> <li>• Environmental restrictions shall be followed in the field, such as requirements related to soil damage, buffer zones, retention trees,</li> </ul>

		seasonal restrictions etc.
4.1 Risk of violations of customary rights at the forest level	Evaluate presence of issue at origin (stakeholder consultations, interviews, document review) – where legal non-compliances are identified these issues shall be resolved. This may involve a process of assuring that the customary rights of local people are being respected.	<ul style="list-style-type: none"> <li>• Stakeholder consultation shall confirm that customary rights are observed during harvesting activities.</li> <li>• Observations shall conform that community forestry rights are not being violated (if applicable)</li> </ul>
5.4 Risk of violations of customs regulations	Evaluate presence of issue at origin (Verification of custom documents and transport documents from supplier. Consultation with customs authorities) – revise procedures where necessary and assure that these are being met.	<ul style="list-style-type: none"> <li>• Products shall be correctly classified (type, custom code, species, quantities, qualities, etc.).</li> <li>• Custom seal on containers shall not have been tampered with</li> <li>• FD approval for export shall be valid</li> <li>• All required exports permits and letters shall be in place.</li> </ul>

This process is applicable to the national Myanmar industry as well as importers in other countries:

1. The Myanmar timber industry – can use the framework to apply the relevant verifiers to their supply chain in order to evaluate and verify whether specific supply chains and timber sources meet the legal requirements and whether the supply chain operates a functioning chain of custody system.
2. The International timber industry - can use the framework to assess legality risks relevant to timber material from Myanmar and to support their efforts to work with suppliers to implement and verify risk mitigating actions (control measures).

### 13.1 Mitigating risks

Implementing control measures to mitigate risks can be a complex task, depending on the situation in the area or supply chain in question. As can be seen from table 3 above, the risk mitigating activities should fit the risks to address potential legal non-compliances at the point where they may be taking place.

Risks can be found in different areas of the supply chain:

1. Risks related to forest management and harvesting operations;
2. Risks related to trade and transport;
3. Risks that illegal material is mixed with other material during transport or processing.



## 13.2 Verifying legality

Appendix A contains not only specification and description of risks, but also lists verifiers that can be used to evaluate the presence of risk and verify the effectiveness of risk mitigating actions.

To this purpose verifiers for forest level and trade that are found in Appendix A, which can be used to evaluate the legality of forest management activities, as well as the legality of trade and transport activities within the country.

In addition, generic chain of custody requirements can be applied both at the forest level as well as in transport, processing and trade to enable verification of the ability to trace the material through processing from the forest to the point of export. The CoC checklist has been adopted from the NEPCon LegalSource Standard<sup>9</sup> (see Annex 6).

Carrying out verification of forest management and chain of custody will most often involve direct observations and visits to the forest site, log depots, processing and storage facilities. At each relevant point in the supply chain, from forest to final product export, relevant issues shall be evaluated against the applicable verifier to assure that legal requirements are met, and that chain of custody systems are functioning.

To do this a number of tools can be used, depending on the issues that are being evaluated. Naturally evaluating customary rights in forest areas differ very much from evaluating chain of custody systems in a saw mill; the verification tools therefore have to match the issues being evaluated. A number of different verification tools should be considered, including:

- Stakeholder consultation
- Interviewing stakeholders or experts
- Document verification
- Interview with relevant staff and contractors
- Expert evaluation
- Field verification/audits
- Direct observation on the ground

## 13.3 Mitigating and verifying risks in Myanmar

As described above, a process to verify the presence of risks and implement control measures to mitigate those risks may be possible in Myanmar.

However, the condition for this to succeed is that the work is done under controlled circumstances focusing on a limited and selected area; thus isolating the issue from the national context. Working on a national scale with the array of issues facing Myanmar will require a long and comprehensive process similar to the FLEGT process, including a range of institutional and governance aspects.

From a short-term trade perspective, there may thus be reason to develop limited scale supply chains from selected areas that are managed and verified for legality in order to enable Myanmar to access international markets and benefit from its recent advances in attaining a more open and equitable society.

---

9

[http://www.nepcon.net/files/resource\\_1/news/2013/2%20FEB/NEPCon%20LegalSource%20Standard%2008FEB13.pdf](http://www.nepcon.net/files/resource_1/news/2013/2%20FEB/NEPCon%20LegalSource%20Standard%2008FEB13.pdf)

### *Implementing supply chain verification*

As described and documented in this report and Appendix A, the risk that material exported from Myanmar has been illegally harvested or traded, is found to be non-negligible for most legal categories.

Under these circumstances, the most effective way of assuring legal is to conduct supply chain verification covering:

- a) A defined forest area;
- b) A well-controlled chain of custody from the forest to the point of export.

The process of implementing such verification may be outlined as follows:

1. Define source forest area and ensure that management of the area is or can be controlled and implemented according to the National Code. This should be done in collaboration with relevant national authorities (Forest department and MTE).
2. Define the transport and processing chain, from the forest to the point of export. In this case it should be assured that logs can be traced back to the forest and that the trade and transport take place according to the applicable legislation, and that a chain of custody system (CoC) is functioning.
3. Verify conformance against standard requirements<sup>10</sup> relevant to forest, supply chain legality and traceability (CoC):
  - a. Forest level evaluation shall include evaluation of all relevant criteria for forest management, such as those found in Annex 1 of the LegalSource Standard. The field verification activities may include observations from harvest sites and extraction activities, document review, forest staff interviews (including DoF, MTE and contractor staff), stakeholder consultation (including government officials, local communities, national and international experts).
  - b. Trade and transport evaluation shall include an evaluation of the legal functioning of trade and transport activities, including (where relevant) processing. The evaluation activities may include field observations, document review, interview of staff relevant to different processes such as transport and trade, as well as government entities related to transport and trade (DoF, MTE and customs authorities). Annex 2 of the LegalSource Standard contains relevant requirements that can be used as verifiers.
  - c. Chain of Custody (CoC) evaluation shall include verification of the ability of all links in the chain, including the forest, to control the movement of logs and products from the logging site to the point of export. This shall be done to assure that no material with unknown or potential illegal origin enters the specified supply chain. For this purpose, Annex 3 of the LegalSource Standard could be applied.

---

<sup>10</sup> It is suggested to apply an internationally recognised standard for verification of legality at both forest level and in the supply chain, such as the LegalSource standard.  
[http://www.nepcon.net/files/resource\\_1/news/2013/2%20FEB/NEPCon%20LegalSource%20Standard%2008FEB13.pdf](http://www.nepcon.net/files/resource_1/news/2013/2%20FEB/NEPCon%20LegalSource%20Standard%2008FEB13.pdf)

However it must be underlined that such a process should be undertaken with extreme care in order not to be seen as a substitute or replacement of a longer term processes aiming to improve governance of forest resources overall in Myanmar, as the below note clarifies.

### 13.4 A note on the national context

If a decision is made to implement limited scope legality verification of timber from selected areas in Myanmar, a note should be made regarding the national context.

Whilst conducting legal verification on a specific forest and supply chain, it should be remembered that the challenge to attain legal and sustainable practices is largely a national level issue. It is only possible to address the underlying causes and effects of illegal logging, and thus meet the overarching objectives of the Myanmar Forest Policy, by including the national level challenges of the forest sector.

In this author's opinion, limited scope forest management and supply chain projects should be carried out as pilot projects in close collaboration with relevant stakeholders, including local communities, civil society organisations as well as international organisations. This would enable independent technical advice and objective oversight of the process.

In addition, such a process should be carried out in a way where results and experiences can feed into higher level efforts to resolve national level structural, institutional and social challenges of the forest sector, such as the FLEGT VPA process.

## References

- Castrén, T. (2010): Timber trade and wood flow–study – Myanmar. Regional Environmental Technical Assistance 5771 Poverty Reduction & Environmental Management in Remote Greater Mekong Subregion (GMS) Watersheds Project (Phase I).  
<http://www.mekonginfo.org/assets/midocs/0002331-environment-timber-trade-and-wood-flow-study-myanmar.pdf>
- Clarke, J. E. (2010): Biodiversity and protected areas Myanmar. Regional Environmental Technical Assistance 5771 Poverty Reduction & Environmental Management in Remote Greater Mekong Subregion (GMS) Watersheds Project (Phase I).  
<http://www.mekonginfo.org/assets/midocs/0002035-environment-biodiversity-and-protected-areas-myanmar.pdf>
- EIA (2012): Appetite for destruction - China's trade in illegal timber. <http://www.eia-international.org/wp-content/uploads/EIA-Appetite-for-Destruction-lo-res.pdf>
- European Union (2010): Regulation (EU) No 995/2010 of the European parliament and of the council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market. [http://ec.europa.eu/environment/forests/timber\\_regulation.htm](http://ec.europa.eu/environment/forests/timber_regulation.htm)
- FAO (2009): Myanmar forestry outlook study. Working Paper No. APFSOS II/WP/2009/07.  
<http://www.fao.org/docrep/014/am252e/am252e00.pdf>
- FAO (2010): Global Forest Resource Assessment 2010: Country Report Myanmar.  
<http://www.fao.org/docrep/013/i1757e/i1757e.pdf>
- Forest Certification Committee of Myanmar (2013): Timber Harvesting and traceability verification in Myanmar.
- Forest Trends (2012): Forest Certification in Myanmar. Information Brief No 3, September 2012.  
[http://www.forest-trends.org/documents/files/doc\\_3222.pdf](http://www.forest-trends.org/documents/files/doc_3222.pdf)
- Gay, Y. (2008): The 2008 Myanmar Constitution: Analysis and Assessment.  
[http://www.burmalibrary.org/docs6/2008\\_Myanmar\\_constitution--analysis\\_and\\_assessment-Yash\\_Ghai.pdf](http://www.burmalibrary.org/docs6/2008_Myanmar_constitution--analysis_and_assessment-Yash_Ghai.pdf)
- Global Witness (2003): A Conflict of Interests The uncertain future of Burma's forests A Briefing Document by Global Witness. October 2003. <http://www.globalwitness.org/library/conflict-interest-english>
- Global Witness (2005): A choice for China: ending the destruction of Burma's Northern frontier forests. <http://www.globalwitness.org/library/choice-china-ending-destruction-burmas-frontier-forests>
- Global Witness (2009): A disharmonious trade: China and the continued destruction of Burma's northern frontier forests. <http://www.globalwitness.org/library/disharmonious-trade-china-and-continued-destruction-burmas-northern-frontier-forests>
- ITTO (2004): Tropical Forest Update 14 /1 2004 13
- Karl, F., Weyerhaeuser, H., and Su, Y. (2004): Navigating the Border: An Analysis of the China-Myanmar Timber Trade. Forest Trends. [http://www.forest-trends.org/documents/files/doc\\_120.pdf](http://www.forest-trends.org/documents/files/doc_120.pdf)
- MOECF (2011): National biodiversity strategy and action plan. <http://www.cbd.int/doc/world/mm/mm-nbsap-01-en.pdf>

Nay San Lin (2006): Assessment of impacts of harvesting practices on teak bearing forests in the east Bago Yoma of Myanmar. MSc. thesis.

NEPCon (2013): LegalSource standard, Version 1.0 8 February 2013.

[http://www.nepcon.net/files/resource\\_1/news/2013/2%20FEB/NEPCon%20LegalSource%20Standard%2008FEB13.pdf](http://www.nepcon.net/files/resource_1/news/2013/2%20FEB/NEPCon%20LegalSource%20Standard%2008FEB13.pdf)

Oberndorf, R.D. (2012): Legal Review of Recently Enacted Farmland Law and Vacant, Fallow and Virgin Lands Management Law. Food Security Working Group's Land Core Group.

Roy, R. D. (2005): Traditional Customary Laws and Indigenous Peoples in Asia. Minority rights group international. <http://www.minorityrights.org/?lid=1018>

Springate-Baginski, O. and Than, M. M. (2011): Community Forestry in Myanmar: Some field realities. <http://www.burmalibrary.org/docs13/CF+Myanmar+report+-+FUG+case+studies-op75-red.pdf>

Stibig, H-J., Stolle, F. Dennis, R. and C. Feldkötter (2007): Forest Cover Change in Southeast Asia - The Regional Pattern. European Commission Joint Research Centre. <http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/477/1/eur%2022896%20forest%20change%20pattern%20se-asia.pdf>

Thaung, T., L. (2007): Identifying conservation issues in Kachin State. Myanmar The state, community and the environment. Australia National University.

Tint, Springate-Baginski and Gyi (2011): Community forestry in Myanmar – progress and potential. ECCDI. <http://www.burmalibrary.org/docs13/Community+Forestry+in+Myanmar-op75-red.pdf>

U4 Expert Answer (2012): Overview of corruption in Burma (Myanmar). U4 anti-corruption centre.

UNOP (2011): Myanmar: Unrepresented Nations and People's Organization (UNPO) Submission to the UN Office of the High Commissioner for Human Rights Universal Periodic Review: 10th Session of the UPR Working Group, January 2011. [http://lib.ohchr.org/HRBodies/UPR/Documents/Session10/MM/UNPO\\_UnrepresentedNationsandPeoplesOrganization\\_eng.pdf](http://lib.ohchr.org/HRBodies/UPR/Documents/Session10/MM/UNPO_UnrepresentedNationsandPeoplesOrganization_eng.pdf)

UPI (2012): Myanmar in a deforestation crisis. Downloaded on 26 May 2013: [http://www.upi.com/Science\\_News/2012/08/22/Myanmar-in-deforestation-crisis/UPI-50031345670650/](http://www.upi.com/Science_News/2012/08/22/Myanmar-in-deforestation-crisis/UPI-50031345670650/)

Woods, K. and Canby, K. (2011): BASELINE STUDY 4, MYANMAR. Overview of Forest Law Enforcement, Governance and Trade. The European Forest Institute. [http://www.euflegt.efi.int/files/attachments/euflegt/baseline\\_study\\_4\\_myanmar\\_final.pdf](http://www.euflegt.efi.int/files/attachments/euflegt/baseline_study_4_myanmar_final.pdf)

World Bank (2011): Worldwide Governance Indicators- Myanmar 1996-2011. <http://info.worldbank.org/governance/wgi/pdf/c146.pdf>

Wyler, L. S. (2008): Burma and Transnational Crime. CRA report for Congress. <http://www.fas.org/sqp/crs/row/RL34225.pdf>

Zaw, U. K. (2003): Current State of the Development and Implementation of the National Code of Harvesting Practices in Myanmar. [http://www.rinya.maff.go.jp/code-h2003/PART\\_4/U\\_Kin\\_Zaw.pdf](http://www.rinya.maff.go.jp/code-h2003/PART_4/U_Kin_Zaw.pdf)

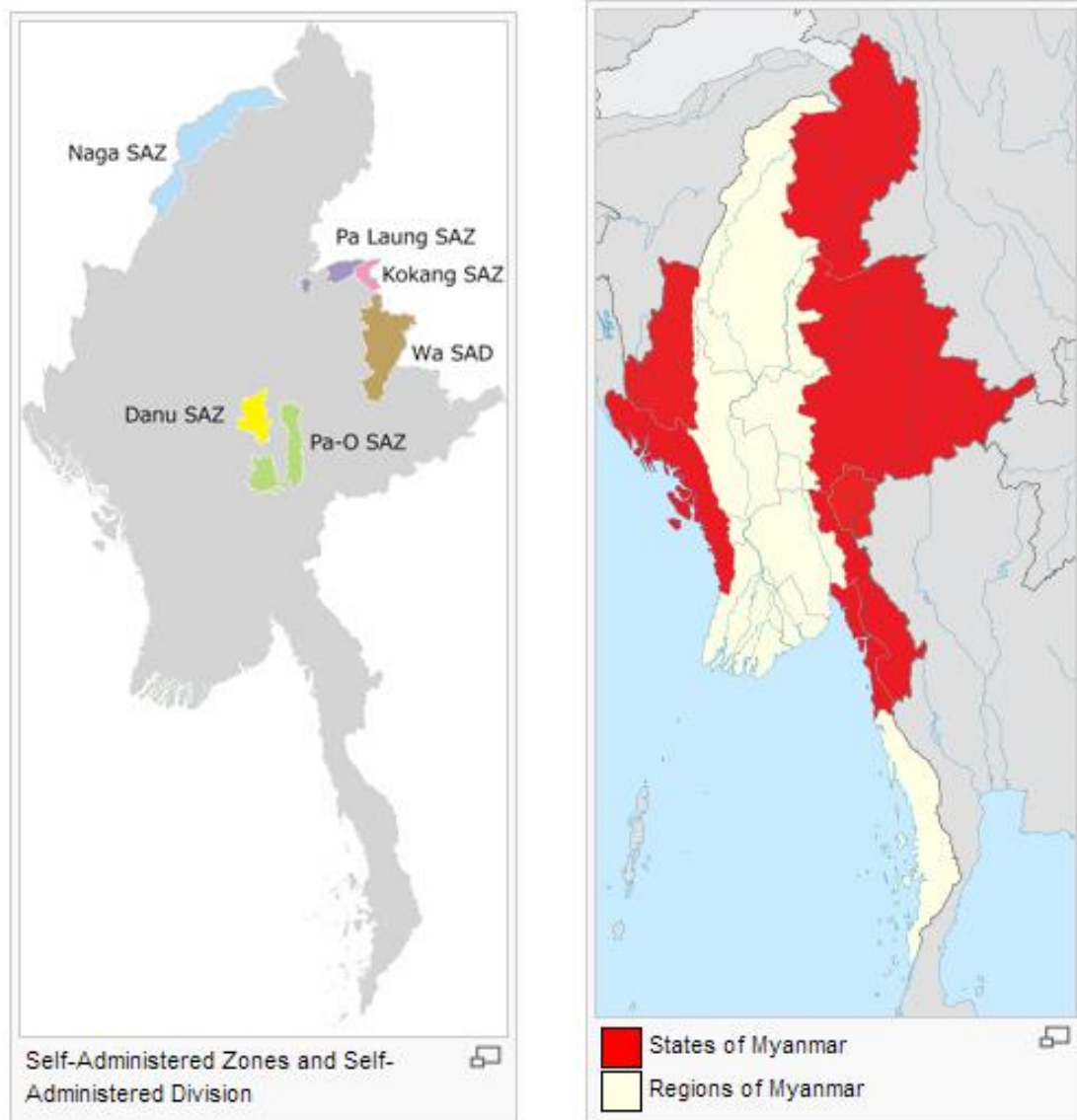
## Annex 1: Map of Myanmar

Source: Global Witness 2009.



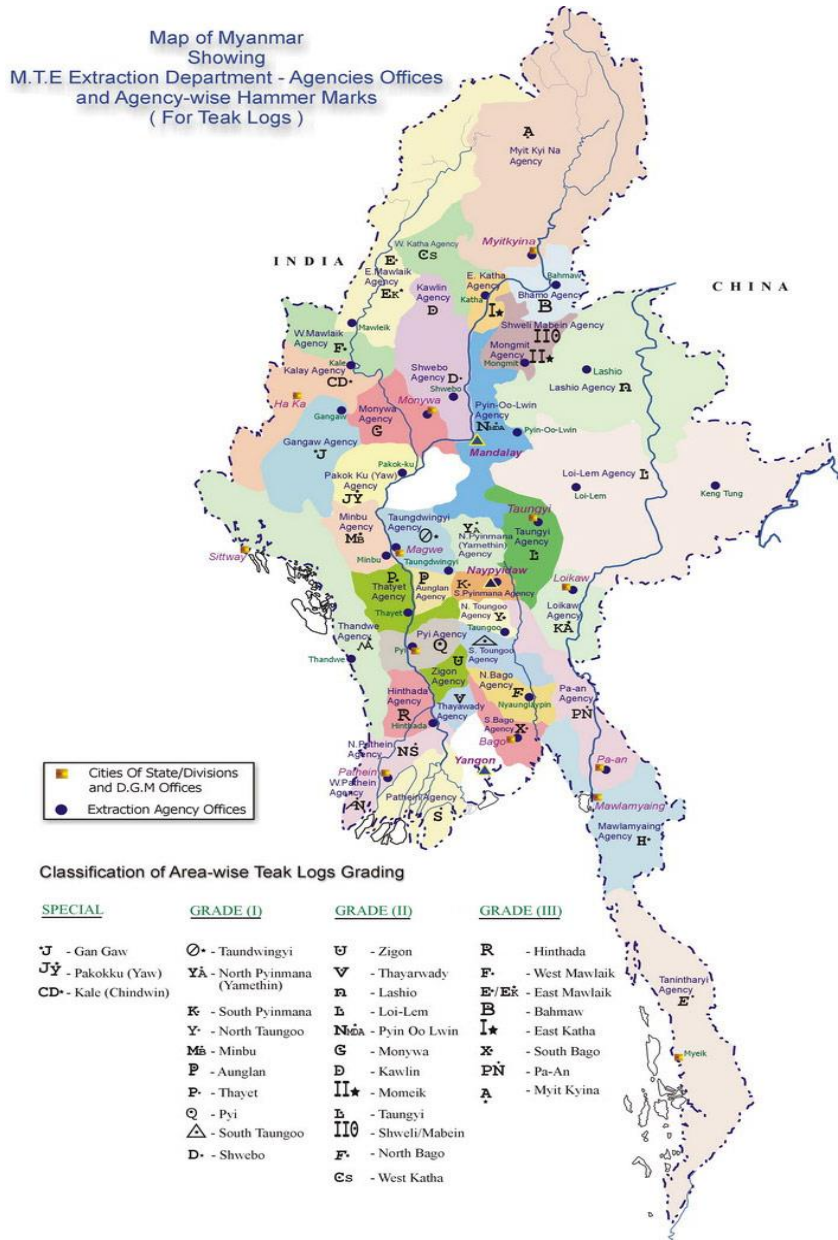


## Annex 2: States and Regions of Myanmar

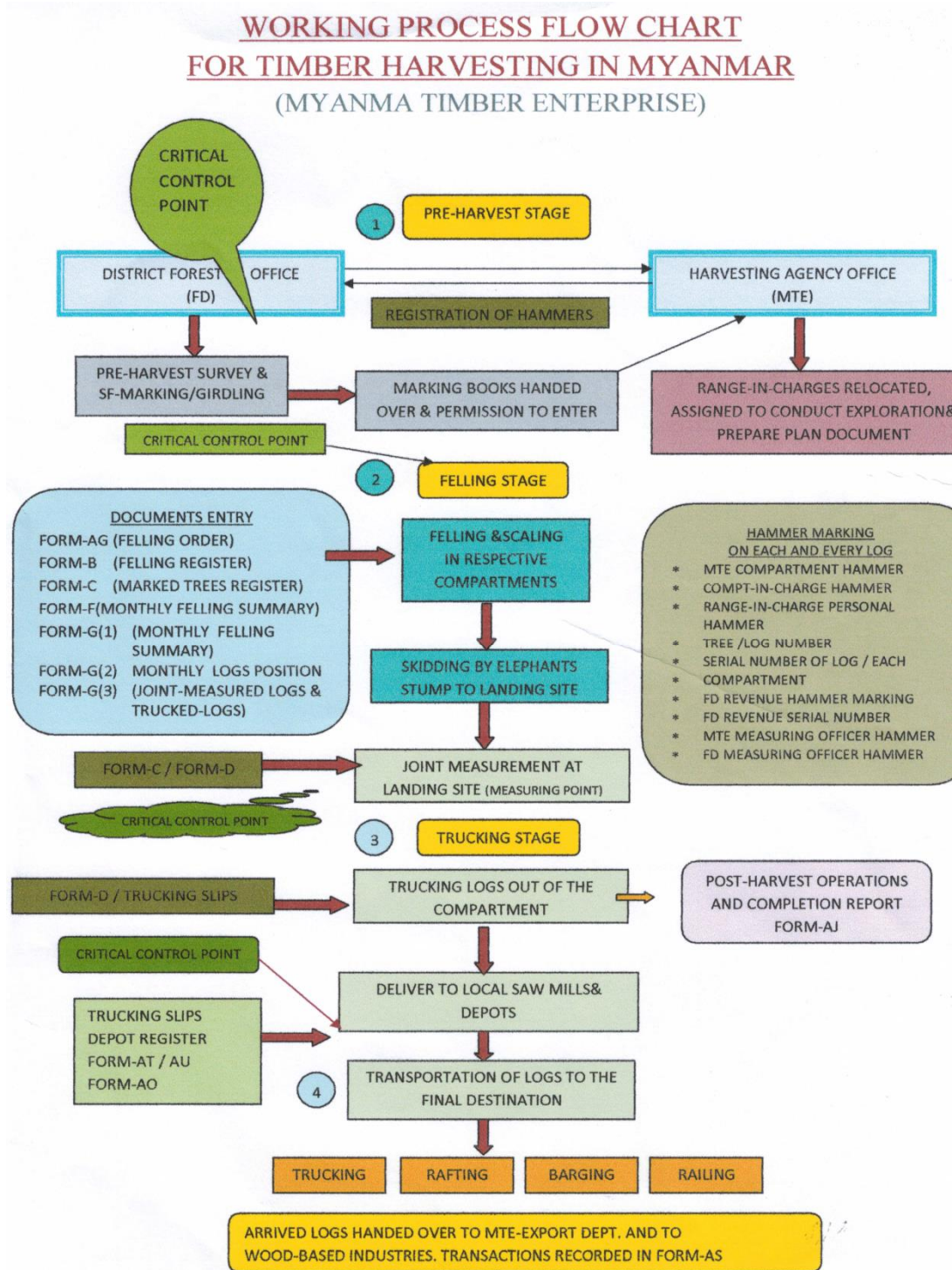


Source: [https://en.wikipedia.org/wiki/Administrative\\_divisions\\_of\\_Burma](https://en.wikipedia.org/wiki/Administrative_divisions_of_Burma)

## Annex 3: Timber Extraction Agencies of MTE

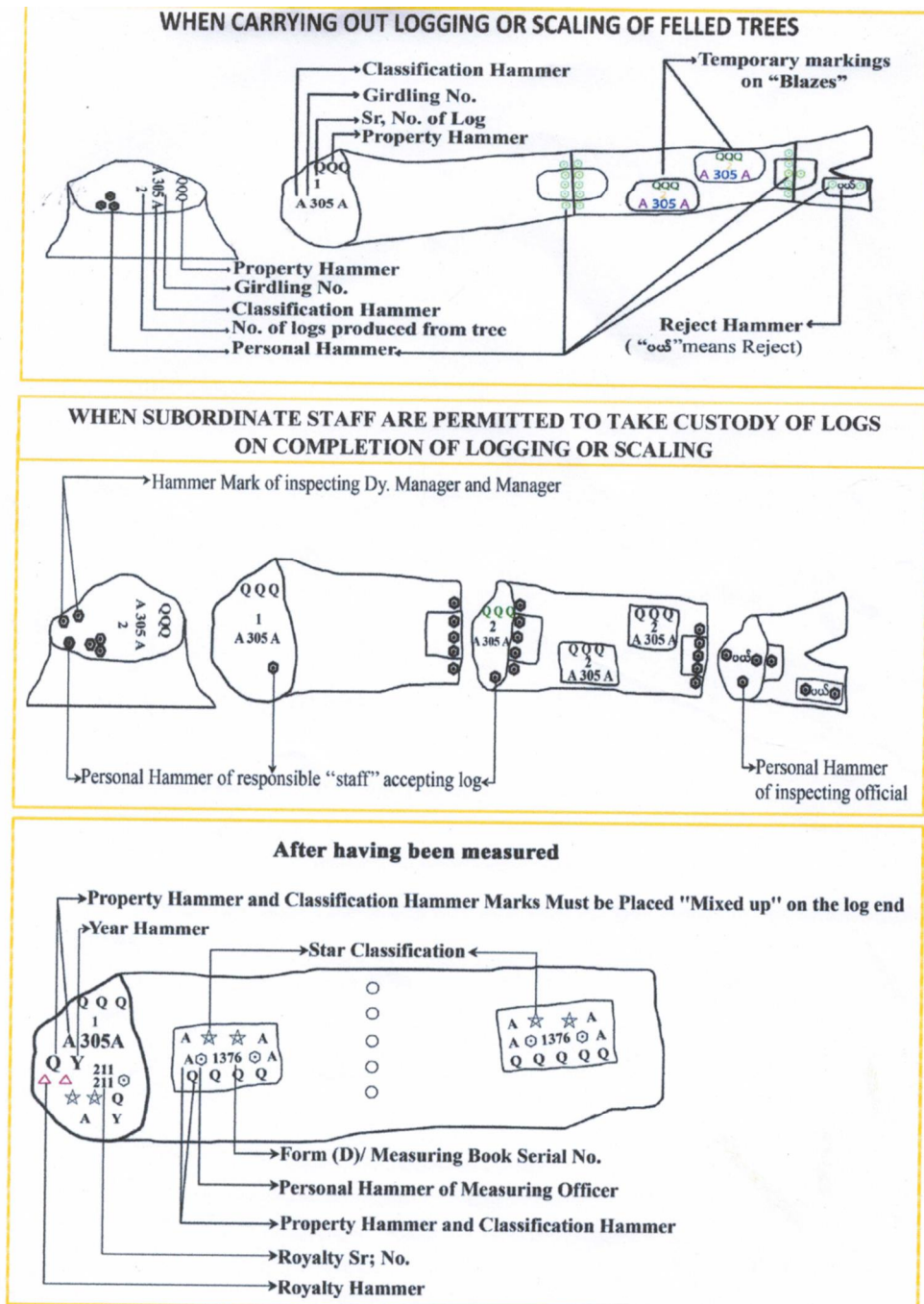


## Annex 4: Overview of MTE logging work process





## Annex 5: Log Marking overview



## Annex 6: Chain of custody requirements

This annex contains general chain of custody (CoC) requirements for maintaining physical separation of material in cases where there is a risk that acceptable material can be mixed with potential illegal material.

### Requirements:

### Related instructions:

- 1 General CoC requirements
  - 1.1 The organisation shall define one person as overall responsible for the CoC control system and individual persons responsible for each part of the CoC control system (purchasing, processing, final storage, marking, recordkeeping etc.).
  - 1.2 The organisation shall develop and maintain documented procedures to ensure compliance with all applicable CoC requirements.
  - 1.3 The organisation shall develop and implement procedures for addressing non-conformances identified by auditors.
  - 1.4 The organisation shall implement training for all applicable staff and workers according to the CoC procedures.
  - 1.5 The organisation shall maintain records applicable to demonstrate compliance with this standard.
  - 1.6 The organisation shall maintain data on the volumes of legal material and ensure that it is available for auditors. The volume information shall be maintained at minimum for purchased material, sold material and material in raw material and final product stock.
- 2 Purchasing and receiving
  - 2.1 The organisation shall verify that material purchased meets the CoC requirements.
  - 2.2 The organisation shall store material under the scope as physically separate, secure units.
  - 2.3 The organisation shall use a distinguishing mark to identify material included in the scope.
- 3 Processing
  - 3.1 The organisation shall keep material included in the scope physically separate



during all stages of processing.

- 3.2 The organisation shall use a tracking system or production records to document production of material included in the scope.
- 3.3 The organisation shall ensure that any off-site processing that takes place at a sub-contracted facility follows the same CoC procedures and is covered by a signed agreement requiring compliance with the requirements.
- 4 Shipping and sales
  - 4.1 The organisation shall store final products included in the scope as physical separate, secure units.
  - 4.2 The organisation shall use a distinguishing mark to identify final products.



## Annex 7: Endangered species of Myanmar

The most highly threatened species (critically endangered and endangered), based upon information provided from the [World Conservation Monitoring Centre](#) (WCMC) database, are listed below. Where appropriate, comments or corrections have been added based upon local information from relevant specialists<sup>11</sup>

Critically endangered

*Pipistrellus anthonyi* (an endemic bat)

*Pjeffrei* (bat)

*Dicerorhinus sumatrensis* Sumatran rhinoceros (may be locally extirpated)

*Rhinoceros sondaicus* Javan rhinoceros (may be locally extirpated)

*Rhodonessa caryophyllacea* Pink-headed duck

*Pitta gurneyi* Gurney's pitta

*Crocodylus siamensis* Siamese crocodile

*Eretmochelys imbricata* Hawksbill turtle

*Geoemyda depressa* Arakan forest turtle

*Geochelone platynota* Burmese starred tortoise

Endangered

*Panthera tigris* Tiger

*Ailurus fulgens* Lesser panda

*Balaenoptera musculus* Blue whale

*B physalus* Common rorqual

*Elephas maximus* Asian elephant

*Bos javanicus* Banteng

*Hylopetes alboniger* Particoloured flying squirrel

*Ardea insignis* Imperial heron

*Ciconia boyciana* Japanese white stork

*Leptoptilus dubius* Greater adjutant

*Pseudibis davisoni* White-shouldered ibis

*Cairina scutulata* White-winged duck

*Tringa guttifer* Nordmann's greenshank

---

<sup>11</sup> <http://www.mekonginfo.org/assets/midocs/0002035-environment-biodiversity-and-protected-areas-myanmar.pdf>

Caretta caretta Loggerhead

Chelonia mydas Green turtle (highly endangered in Myanmar waters)

Lepidochelys olivacea Olive ridley

Dermochelys coriacea Leatherback

Batagur baska Batagur

Cuora trifasciata Chinese three-striped box turtle

Kachuga trivittata Burmese roofed turtle (endemic)

Scleropages formosus Asian arowana

Pangasianodon gigas Giant catfish

## Annex 8: People interviewed

Name	Title	Organisation	Contact
Mr. Jørn Kristensen	Director	The Institute of International Development (IID)	<a href="mailto:jkristensen@iid.org">jkristensen@iid.org</a> www.iid.org
Mr. Win Myo Thu	Managing Director	Ecodev	<a href="mailto:Winmyothu@gmail.com">Winmyothu@gmail.com</a> www.ecodev-mm.com
Mr. Tun Shein	Representative	TPS Wooden Industries	<a href="mailto:Tps.vgn@gmail.com">Tps.vgn@gmail.com</a>
Mr. Maung Maung Than	Project coordinator	RECOFTC	<a href="mailto:maungmaung@recoftc.org">maungmaung@recoftc.org</a> www.recoftc.org
Mr. U Shwe Kyaw	Director	Myanmar Forest Certification Committee	
U Ohn	Chairman	Forest Resource Environment Development and conservation association (FREDA)	Uncle.ohn@gmail.com
Mr. Nay San Lin	Forest Extraction Officer	Myanmar Timber Enterprises	naysanlin1973@gmail.com
Ms. Faith Doherty	Forest Campaign Team Leader	Environmental Investigation Agency	anonfaith@hotmail.com
Mr. Huynh Quang Thanh	General Director	Hiep Long Fine Furniture	thanh@hieplongfurniture.com
Mr. Robert Oberndorf	Researcher	Forest Trends	ROberndorf@forest-trends.org
Mr. Barber Cho	Secretary General	Myanmar Timber Merchants Association	mtma@mtpmail.com.mm www.myanmar-timber-association.org
Mr. Kyaw Wyn	Director	National Wood Industries	
Mr. Richard Ba-Oh	Manager	Baoh Family Manufacturing Co. Ltd.	<a href="mailto:richardbaoh@yahoo.com">richardbaoh@yahoo.com</a>
Mrs. Helle Albertsen Baoh	Manager	Sanfoco Wood Industries Ltd.	<a href="mailto:sanfoco@yangin.net.mm">sanfoco@yangin.net.mm</a>

Mr. Aung Win	General Manager	Htun Myat Co. Ltd	<a href="mailto:Centurydragon.co@gmail.com">Centurydragon.co@gmail.com</a>
Mr. Jack Hurd	Deputy Director	<b>The Nature Conservancy's</b> Asia-Pacific Region	jhurd@tnc.org
Mr. Kevin Woods	Researcher	-	woodsyk@gmail.com
Mr. Myint Hliang	Consultant	-	<a href="mailto:scwemyan@gmail.com">scwemyan@gmail.com</a>