

SUPPRESSING ILLEGAL LOGGING IN PENINSULAR MALAYSIA

Muhammad Nur Haniff Mohd Noor
School of Maritime Business and Management,
Universiti Malaysia Terengganu, Kuala Nerus, Terengganu
Email: mnhaniff@gmail.com.my

Rokiah Kadir
School of Maritime Business and Management,
Universiti Malaysia Terengganu, Kuala Nerus, Terengganu
Email: rokiah@umt.edu.my

Suriyani Muhamad
School of Social and Economic Development,
Universiti Malaysia Terengganu, Kuala Nerus, Terengganu
Email: suriyani_md@umt.edu.my

ABSTRACT

Illegal logging is a continuous environmental issue in Peninsular Malaysia. Illegal logging threatens the ecological sustainability, shrinks state government's income and undermines the right of local community. Various efforts and mechanisms have been implemented to control illegal logging in all logging stages. However, there are issues with each respective regulatory mechanism which allow illegal logging to thrive in Peninsular Malaysia. This paper is written in accordance with an in-depth review of publications by agencies such as Forestry Department Peninsular Malaysia (FDPM), Malaysian Timber Certification Council (MTCC), and Malaysian Timber Industry Board (MTIB). Journal articles and academic sources are also reviewed to gain further insights towards the topic. At a conceptual level, this paper identifies several regulatory mechanisms which are implemented to suppress illegal logging in Peninsular Malaysia. The paper also discusses challenges and issues with respect to the regulatory mechanisms. There are controlling mechanisms placed in the pre-logging, logging and post-logging stages. It is hoped that clarification regarding issues related to respective regulatory mechanism would assist responsible agencies to improve the current system to prevent regulatory loopholes, and eventually reducing the occurrences illegal logging.

Keywords: Illegal logging, regulatory mechanism, legislative control, timber extraction control, trade control

INTRODUCTION

Forest provides economic, social and environmental benefits which are crucial for the socioeconomic development of the nation. Sustainably managed forest would ensure continuous services and benefits are gained from the forest. However, illegal logging would hamper various efforts related to sustainable forest management. Illegal logging results in negative impacts towards the ecological stability, government's income and the livelihood of forest-dependence community especially in producer countries.

Chatham House (2018) categorizes Malaysia as one of the timber-producing countries. The other nations that falls under this category are Brazil, Cameroon, Democratic Republic of Congo, Ghana, Indonesia, Laos, Papua New Guinea, and Republic of Congo. Hence, it is relevant to narrow down scope of the literature in the context of these nations. In-depth analysis of previous studies and literatures reveals that the discussions solely focuses upon controlling illegal logging from the legislative aspect. The legislation centred around forest management plan, forest offences and activities which are prohibited in the forest reserve. The primary forestry act that are implemented in the producer countries are depicted in Table 1.

Table 1. The primary forestry statutes in timber-producing countries [according to categorization by Chatham House (2018)]

	Country	Forestry Act/Legislation
1.	Brazil	Brazil Forest Code (2012)
2.	Cameroon	Forest Code (1994)

3.	Democratic Republic of Congo	Forest Code (2002)
4.	Ghana	Timber Resources Management (Amendment) Act 2002
5.	Indonesia	Law of the Republic of Indonesia 1999
6.	Laos	Forestry Law (2007)
7.	Papua New Guinea	Forestry Act (1991)
8.	Republic of Congo	Forest Code (2000)

Source: Wellesley (2014), Haore (2015), Lawson (2014), Haore (2014), Hoare & Wellesley (2014), Saunders (2014)

It may be noted that the detailed provisions about forest offences are provided in the main forestry statutes, nevertheless the statutes generally do not specify the procedures or guidelines which are aimed to regulate illegal logging activities.

It may also be mentioned that review of related articles shows that controls of illegal logging may also be accomplished through trade control such as Voluntary Partnership Agreement (VPA). VPA is a trade agreement between the timber-producing countries and the European Union. The ultimate goal of VPA is to verify that all timber and timber-based products are sourced from legally harvested forest (European Forest Institute 2018). VPA partner countries consists of Cameroon, Central African Republic, Ghana, Indonesia, Liberia and Republic of the Congo (European Forest Institute 2018).

In this context, past literatures did not discuss specific methods, procedures or guidelines which are implemented to curb illegal logging in various stages of log harvesting. Hence, information regarding the system as practised on the field by the responsible agencies are relatively scarce in the context of Malaysia or other timber-producing countries.

This paper focuses upon the regulatory mechanisms implemented only in Peninsular Malaysia. It may be noted that the scope is confined to the Peninsular Malaysia since there are major differences in the systems methods, procedures and guidelines in the forestry sector as practised in Sabah and Sarawak. In terms of administration, it may be stated that Forest management in Malaysia falls under the jurisdiction of three distinct forest authorities; Forestry Department Peninsular Malaysia (FDPM), Sarawak Forestry Corporation and Sabah Forestry Department. FDPM is responsible to regulate matters related to forestry in Peninsular Malaysia, whereas Sarawak Forestry Corporation and Sabah Forestry Department are the agencies that manage forest area in the state of Sabah and Sarawak.

It may be highlighted that due to financial constraints this study cannot be extended to Sabah and Sarawak since these two territories are a massive landmass located at the Borneo Island which is geographically isolated from the Peninsular Malaysia.

RESEARCH ISSUES

Past research reveals that the percentage of illegal logging in Malaysia stood at 35%, whereas approximately 40% forest produce designated for domestic use and export have been illegally sourced (Mohd Gani 2013). In the context of Peninsular Malaysia, the statistics triggers concern about the presence and context of regulatory mechanisms to curb illegal logging activities.

OBJECTIVE OF THE STUDY

This study aims to examine the regulatory mechanisms to suppress illegal logging in Peninsular Malaysia which are implemented by various agencies at different logging stages. Challenges towards the implementation of the mechanisms are discussed in the second part of the paper.

METHODOLOGY

This paper is written according to extensive review of the articles and publications by as Forestry Department Peninsular Malaysia (FDPM), Malaysian Timber Certification Council (MTCC), and Malaysian Timber Industry Board (MTIB). Various books and journal articles are reviewed to gain further insight towards the topic. Several interview sessions were also conducted with officers from the State Forestry Department and MTIB to comprehend the challenges associated with the implementation of the regulatory mechanisms.

REGULATORY MECHANISMS TO SUPPRESS ILLEGAL LOGGING TIMBER TAGGING

Timber tagging is an element under Pre-f process in relation to the practices of Selective Management System (SMS). In Peninsular Malaysia, Sustainable Forest Management (SFM) is implemented through SMS. In this case, trees that are designated for timber harvesting are marked with foldable, white PVC tag (FDPM 1997). There are seven small tags that

combine into one tag, whereby each small tag can be separated from the main tag (FDPM 1997). There are several key information printed on the tag, which are:-

- a) Code of license area.
- b) The serial number of the tree.
- c) The number of log pieces (*tual balak*) obtained from the tree felled.
- d) The acronym of the forestry state department associated with location of the forest.

Source: FDPM (1997)

There are several benefits of timber tagging. First, logging operators will face difficulty to harvest trees illegally outside or inside their concession area (FDPM 1997). If they commit to harvest untagged trees, their unlawful act will be detected by the foresters. Second, timber tagging prevent the construction of illegal road in a particular concession area (FDPM 1997). The logging operators that intend to target valuable, untagged tree along the illegal road will face difficulty to transport the logs outside the forest area. Third, timber tagging assist the officers in preparing their report since data regarding log extraction need to be properly documented (FDPM 1997).

MONITORING AND SURVEILLANCE OF FOREST HARVESTING ACTIVITIES

Monitoring of forest harvesting activities begin with briefing about the rules and regulations before the forest work is executed. The District Forest Officer (DFO) will explain to license holder, contractor and workers regarding several matters which include:-

- a) The construction of forest road and the method of log extraction.
- b) Trees that can and cannot be felled, as well as the direction to cut trees.
- c) Species and the serial number of timber tag must be consistent with the Log Record and Extraction Control Book.
- d) The safety of the workers and all individuals involved in harvesting activities.

Source: *Manual Perhutanan* (2003)

The log concession site is monitored at least once a month. Afterwards, the forester who inspect the site must submit the inspection form to the DFO for his/her perusal. The aspects that are monitored includes:-

- a) The border of the licensed area.
- b) Logging outside the licensed area.
- c) Registration of machinery.
- d) Log extraction and harvesting.
- e) Buffer zone.
- f) Trees which are prohibited to be logged.

Source: *Manual Perhutanan* (2003)

Meanwhile, the forest reserve without harvesting activities are also monitored at least once a month (*Manual Perhutanan* 2003). Other than the routine surveillance schedule, the forest enforcement division also rely on information from the public regarding any cases of illegal forest activities.

TIMBER CHECKING STATION

Timber checking station (*Balai Pemeriksa Hutan*) is an extremely important piece of the regulatory system to ensure only legally felled logs are transported out of the forest area. Logs are measured at the station to determine the amount of royalty, cess, and other charges before logs are transported (*Manual Perhutanan* 2003). Since the station does not accept cash transaction, the payment are deducted from the logging operator's account.

In this case, the officer at the checking station needs to ensure each piece of logs being transported out of the forest area acquire the tag. On top of that, the officer must check the consistency between type of trees, the serial number of the tag and the number of pieces of logs between the record in the Log Record and Extraction Control Book with the actual log harvested (*Manual Perhutanan* 2003).

After the officer confirms that all tags are valid, the logs are measured in terms of its length, diameter and volume. However, if there is a mismatch in species, diameter and the tag's serial number between the actual production and the log record, the officer must stop the logs from being transported out of the station (*Manual Perhutanan* 2003). Then, the officer must report the case to the forest ranger, where the stump of the log will be inspected to confirm the legality of the harvest. In the case of untagged logs being harvested, the forest ranger must inform the DFO for subsequent actions to be undertaken according to the law (*Manual Perhutanan* 2003).

In the case of all regulations are satisfied, harvest marking (*tanda hasil*) is imprinted on the logs (*Manual Perhutanan* 2003). This indicates that all payments have been cleared. Then, the Removal Pass is issued to the lorry driver. At this stage, logs are approved to be transported to its designated destinations.

TIMBER CHECKING AT SAWMILLS

Logs from the forest are transported to the designated sawmills or premises of wood-based industry. In order to ensure the legal operation of sawmill, there are several aspects that are examined by the enforcement officer which include:-

- i) License and the validity of the license at the premises.
- ii) All machinery used in the premises in terms of numbers, arrangement, and size must be similar to the initial machinery inventory approved by the Director of the State Forestry.
- iii) The premises must be similar to the initial building plan approved by the Director of the State Forestry.

- iv) Log Register (*Daftar Balak*) must be constantly updated by the sawmill operator. Log Register is an extremely crucial document which contains information regarding the date logs enter the sawmills, the serial number of the log, the serial number of Removal Pass, the date of Removal Pass, tag number of log pieces, species of the logs, size of the log and the date log was processed. The head of enforcement team must record the details of the inspection activity in the Log Register.
- v) All logs in the premises must possess the Removal Pass and the harvest marking imprinted. The details in the Removal Pass must be consistent with records in the Log Register.
- vi) Each Removal Pass must be cancelled during the inspection.

Source: *Manual Perhutanan* (2003)

FOREST CERTIFICATION

Forest certification is an approach to encourage responsible forest management where the scheme is developed according to market-based policy instrument (Siry et al., 2005; van Kujik et al., 2009). Forest certification promote responsible forest management since the certification awarded to a particular forest management units (FMU) would boost consumer confidence that the FMU is managed according to the prescribed rules and regulation (Maser & Smith, 2001; Viana et al., 1996).

The Malaysia Timber Certification Scheme (MTCS) was introduced by Malaysian Timber Certification Council (MTCC) in 2009. The environmental certification scheme provide assurance that timber supply originated from sustainably managed forest (MTC 2016). In reference to MTCS, The guidelines for assessing FMU is the Malaysian Criteria and Indicators for Forest Management Certification [MC&I (Natural Forest)] to assess the management of natural forest. Meanwhile, MC&I (Forest Plantation) is the parameter applied in the evaluation of forest plantation (MTC, 2016).

There are two types of certification awarded to the applicant under MTCS, namely Forest Management Certification and Chain-of-Custody Certification. Forest Management Certification is issued to FMU that achieve the standards of forest management practices (MTC, 2016). Meanwhile, Chain-of-Custody Certification is issued to manufacturer or exporter which ensure the source of timber supply originated from the FMU that hold the Certificate for Forest Management or Certificate for Forest Plantation Management (MTCC, 2013). On top of that, both certification are authorized by the third party auditing to verify compliance among manufacturer or exporter (MTCC, 2013).

SPECIFIC LICENSE FOR TIMBER EXPORT

Malaysia Timber Industry Board (MTIB) is the agency responsible to assist, promote and manage the development of timber industry. In other words, the agency provides assistance in terms of technical and marketing support for all parties in the timber industry to ensure the timber industry continue to thrive in an ever-challenging Malaysian economic landscape (MTIB 2018). In the context of timber trade, MTIB is accountable to ensure timber trade, albeit export or import, are executed according to the Malaysian Timber Industry Board (Incorporation) Act 1973 or Act 105.

Act 105 is the primary guideline to control export and import activities related to timber trade. This act has several provision regarding timber trade control. In this case, Section 13 prohibits the activity of exporting, handling the jetty, timber grading, supplying or wood processing by any personnel unless he/she has registered under the Act. Meanwhile, Section 14 stated that it is compulsory for anyone who intend to export timber, run timber-based business, grade timber, supply or process timber to be registered with the agency.

In this context, the export license is a mechanism to regulate and control timber trade, marketing and distribution of wood-based product in the market. Regulation of timber export also assist the agency to collect, retain and update records related to Wood-Based Industry (MTIB 2018). Export license also serve as a mean to control the trade of prohibited tree species. There are 27 species of logs that are banned from export. Export ban also applied on logs with diameter of 12 inch and above. Examples of the species that are illegal to be exported are *Bakau*, *Kempas*, *Keruing*, *Chengal*, *Damar Minyak*, *Meranti Merah*, *Meranti Putih*, *Jelutong*, and *Kapur* (Port Klang Authority n.d).

CHALLENGES ASSOCIATED WITH THE IMPLEMENTATION OF REGULATORY MECHANISMS

The regulatory mechanisms are significant to prevent the occurrences of illegal logging. In Peninsular Malaysia, several mechanisms are implemented in the pre-harvesting, harvesting and post-harvesting stages with the ultimate aim of preventing illegal logging activities. However, there are issues which are associated with the implementation of the mechanism. The problems are described as follows:-

ISSUES RELATED TO FOREST MONITORING AND SURVEILLANCE

Forest monitoring and surveillance is crucial to detect any illegal activities and unlawful act. The main challenges that hamper forest monitoring and surveillance described in the interview include insufficient workforce and ageing staff. Insufficient workforce poses negative impact towards law enforcement activities due to vast area of forest in certain states of Peninsular Malaysia. The input form the interview reveals that the ratio of the forester to the area of forest is 1 forester: 6,000 hectares. Even worse, forest reserves in Malaysia are not enclosed by fence, which increases the risk of illegal forest encroachment. Ageing workers would negatively affect the efficiency and effectiveness of forest enforcement. These senior workers are restricted by their physical condition and may find it challenging to match the physical capability of their younger counterparts.

ISSUES RELATED TO TIMBER CHECKING STATION

Interviews show that controls at the checking station might not be entirely effective. For example, there might be a possibility that in certain cases, illegally logged timber could pass through the timber checking station. Such situation could take place when harvesting activities is executed at the alienated land (*tanah beri milik*), where logs could be harvested from the forest reserve nearby the alienated land. At the checking station, the officer might incorrectly approve the logs taken illegitimately from the forest reserve and issue the Removal Pass. The occurrence of such cases could be due to lack of knowledge or inexperienced officer at the checking station.

ISSUES RELATED TO TIMBER PROCESSING AT SAWMILLS

The Log Register provides details about each piece of logs located in a particular sawmill. In addition, the Removal Pass ensure that logs entering the sawmill are legally harvested. However, input from the interviews highlights that without proper enforcement and inspection, the sawmill operator would accept illegally sourced logs. In this case, illegal logs will be processed immediately to avoid being detected by the enforcement officers.

Another issue which relates to wood-based industries identified in the interview is the presence of illegal sawmills. In most cases, illegally felled logs are transported to illegal sawmills. The manufacturing and processing capacity of these illegal premises also promote the occurrences of illegal log harvesting

ISSUES ASSOCIATED WITH TIMBER CERTIFICATION

Lewis & Davis (2015) assert that there are difficulties to comply with environmental and ecological criteria outlined in the MC&I (Natural Forest). The noncompliance of ecological criteria is noticeably more apparent than the economic or social aspect of the MTCS scheme. There are three ecological criteria that witness the most frequent noncompliance which are:-

- i) Lack of evaluation, identification or documentation of high conservation value forest (HCVF).
- ii) Failure to fulfil the content requirements for MC&I assessments
- iii) Improper monitoring towards the effectiveness of the conservation procedures and measures of HCVF.

Lewis & Davis (2015) assert that forest management systems would face major challenge and difficulties to ensure full compliance with these three ecological criteria.

ISSUES ASSOCIATED WITH TIMBER EXPORT CONTROL

In reference to the Malaysian Timber Industry Board (Incorporation) Act 1973, *the act prohibits the trade of unregistered timber. However, the Act does not have provisions that prohibit the trade of timber which are illegally harvested or illegally sourced.*

In this context, inputs from the Eastern Region MTIB officer add further depth into the issue. The officer highlights the challenge to determine the legality of timber designated for export and international market. This is because the timber has undergo various processing stages where the processed timber has changed its form from round logs to numerous wood products.

As with exports other commodities, issues related to timber exports such as smuggling of sawn timber, timber smuggling at the illegal and unauthorized exit point, illegal declaration of timber and incorrect declaration of custom code may be expected to occur.

DISCUSSION AND CONCLUSION

The regulating mechanisms and its associated issues are the main focus of this paper. Discussion regarding both aspects contribute to better understanding of methods, procedures and guidelines which are implemented to curb illegal logging in various stages of log harvesting. Since past literature did not provide sufficient information regarding the regulating mechanisms, this paper significantly contribute to the knowledge with respect to this subject matter.

The preceding discussion shows that there are various regulatory mechanisms practised in Peninsular Malaysia to suppress illegal logging. The mechanisms covers log harvesting, log checking, log processing, verification of timber source through certification and export control. The discussion also indicates that the implementation of the mechanisms is not free from related hurdles. These issues might open up opportunities for unlawful activities in the forestry sector, especially illegal logging. The occurrence of the problems might be attributed to insufficient knowledge and inexperienced workforce. Hence, effective training programmes related to each regulatory mechanisms is extremely crucial to improve the expertise among enforcement officers (Interpol 2013).

As stated earlier, this research only addresses the regulating mechanisms implemented in Peninsular Malaysia. Further research might be required to examine the regulating mechanisms practiced in the West Malaysia. Future research could also focus on analysing the mechanisms implemented in other timber-producing countries. A quantitative-based research in the future is also highly recommended. It must also be stressed that most of the challenges that relates to the regulating mechanisms are discussed with reference to respondent's opinion due to scarcity of academic resources concerning the topic. A more comprehensive research regarding the topic is necessary.

REFERENCES

- European Forest Institute (2018). Voluntary Partnership Agreements. Retrieved from <http://www.euflegt.efi.int/vpa> . 7th May 2018.
- Forestry Department Peninsular Malaysia (FDPM) (1997). *Manual Kerja Luar. Sistem Pengurusan Memilih* (Selective Management System).
- Forestry Department Peninsular Malaysia (FDPM) (2016) *Pemahaman Pindaan Akta 1984 Portal Rasmi Jabatan Perhutanan Semenanjung Malaysia*. Retrieved from <http://www.forestry.gov.my/index.php/my/mengenai-kami-baru/profil-jpsm/polisi-agensi?id=690> 10th February 2017
- Hoare, A., & Wellesley, L. (2014). *Illegal Logging and Related Trade The Response in Indonesia*. Energy Environment and Resources. Chatham House.
- Hoare, A. (2014). *Illegal Logging and Related Trade The Response in Ghana* . Energy Environment and Resources. Chatham House.
- Hoare, A. (2015). *Illegal Logging and Related Trade The Response in Cameroon*. Energy Environment and Resources. Chatham House.
- Interpol (2013). *Assessment of Law Enforcement Capacity Needs to Tackle Forest Crime*. Environmental Crime Program. Project Leaf.
- Lawson, S. (2014). *Illegal Logging in the Republic of Congo*. Energy Environment and Resources. Chatham House.
- Lawson, S. (2014). *Illegal logging in Papua New Guinea*, Energy Environment and Resources. Chatham House.
- Lawson, S. (2014). *Illegal Logging in the Democratic Republic of the Congo*. Energy Environment and Resources. Chatham House.
- Lewis, R. A., & Davis, S. R. (2015). *Forest Policy and Economics Forest certification, institutional capacity, and learning : An analysis of the impacts of the Malaysian Timber Certification Scheme*. *Forest Policy and Economics*, 52, 18–26.
- Malaysia Timber Industry Board (MTIB) (2018). *Corporate Profile*. Retrieved from http://www.mtib.gov.my/index.php?option=com_content&view=article&id=46&lang=en&Itemid=13 13th February 2018.
- Malaysia Timber Industry Board (MTIB) (2018). *Garis Panduan Pendaftaran* . Retrieved from http://www.mtib.gov.my/index.php?option=com_content&view=article&id=83&Itemid=82&showall=1&lang=bn 13th February 2018.
- Malaysian Timber Certification Council (MTCC). (2013). *Malaysian Timber Certification Council*. Retrieved from <http://www.mtcc.com.my/>. 13 February 2018.
- Malaysian Timber Council (MTC). (2016). *Malaysian Timber Certification Scheme (MTCS)*. Retrieved from <http://www.mtc.com.my/resources-MalaysianTimberCertificationScheme.php>. 13th February 2018.
- Manual Perhutanan* (2003). *Jabatan Perhutanan Semenanjung Malaysia*. Ampang Press Sdn Bhd
- Maser, C., Smith, W., (2011). *Forest Certification in Sustainable Development: Healing the Landscape*. Boca Raton, Lewis Publishers.
- Nicholson, D.T (1970). *The effects of logging and treatment on the mixed dipterocarp forests of Southeast Asia*, FAO, Rome, Italy.
- Pakhriazad, H. Z., Shinahora, T., Nakama , Y. & Yukutake ,K. (2004). *A Selective Management System (SMS): A case study in the implementation of SMS in managing the dipterocarp forests of Peninsular Malaysia*. No. 57
- Port Klang Authority n.d. *Peraturan dan Tatacara Pemprosesan Lesen Eksport Dan Import Kayu dan Keluaran Kayu*. Retrieved from <http://www.pka.gov.my/phocadownload/OfficeAutomation/slide/MTIB.pdf> 13th February 2018.
- Saunders, J. (2014). *Illegal Logging and Related Trade The Response in Lao PDR*. Energy Environment and Resources. Chatham House.
- Siry, J., Cabbage, F., Ahmed, A., (2005). *Sustainable forest management: global trends and opportunities*. For. Policy Econ. 7, 551–561.
- van Kujik, M., Putz, F., Zagt, R., (2009). *Effects of Forest Certification on Biodiversity*. Tropenbos International, Wageningen.
- Viana, V., Ervin, J., Donovan, R., Elliott, C., Gholz, H. (Eds.), (2009). *Certification of Forest Products: Issues and Perspectives*. Washington, DC, Island Press.
- Wellesley, L. (2014). *Illegal Logging and Related Trade The Response in Brazil*. Energy Environment and Resources. Chatham House.