

An Overview of Illegal Logging Situation in Peninsular Malaysia

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Abstract

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The trends of illegal logging and current situation of illegal logging in Peninsular Malaysia were studied. Data and information from year 2001 to 2010 on volume of log productions (m³) and volume of illegal log productions were collected from the government and private sectors such as the Forestry Department Peninsular Malaysia (FDPM), International Tropical Timber Organization (ITTO) and Food and Agriculture Organization (FAO). The data obtained were statistically analyzed using the correlation analysis to determine the direction and the strength of the relationship between log productions and illegal log productions. The results showed that the trends of illegal logging are on the increased. Eighteen percents (18%) of the logs cut annually are obtained from illegal operation. The log productions and illegal log productions resulted have a weak negative relationship as $r = -0.271$, $p = 0.603$ and do not significantly related. The illegal log productions are inversely related with the log productions. It can be concluded that the log productions in Peninsular Malaysia occurred in a small scale and the situation is under control. Proper long-term planning needs to be generated and implemented to prevent the problem from becoming worse.

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1. Introduction

Illegal logging is broadly recognized as one of the most critical proximate causes of deforestation and forest degradation. The destruction of natural forests continues to be the greatest challenge to forestry in Asia and the world. The area of primary forest in Asia decreased at average rate of 1.5 million hectares per annum from 1990 to 2005 (FAO, 2005). The global response to illegal logging or forest crimes has spurred by the G8's Action Program on Forests which was launched in May 1998 (Henry & Frederico, 2010).

Actions under the program included assessment of the nature and extent of the international trade in illegally harvested timber, measures to improve market transparency and assessment of the effectiveness of international measures to control illegal forest activities. Like many other producers of tropical wood products, Malaysia has pledged its commitment to manage the forests in a sustainable manner, in line with the International Tropical Timber Organization (ITTO) year 2000 objective which states that all wood products traded in international market must be produced from sustainably managed forests (Rusli, 2001).

Due to this commitment, Malaysia through Forestry Department Peninsular Malaysia (FDPM) is responsible to prevent illegal logging in Peninsular Malaysia in affirming the commitment to sustainable forest management. Some strategies and programs have been implemented such as amended National Forestry Act 1984, establishment of enforcement teams, the formulation and testing of Malaysia's criteria and indicators (MC&I) for sustainable forest management and international collaborations to address violation of forest law and forest crimes between neighbour countries. The main piece of legislation governing the conduct of such activities in Peninsular Malaysia is the National Forestry Act, 1984 and its amendments of 1993. The causes, methods and perpetrator of illegal logging differ depending on economies, societies, ecologies and legal institutions.

In Peninsular Malaysia, main cause of illegal logging never been determined but some NGOs claimed that illegal logging in Peninsular Malaysia occurred because of corruption among forest authorities, weak of law enforcement and lack of enforcement operations. Noted that, tropical forest in Peninsular Malaysia is very dense and some are located in the remote areas and places deep into the forest and involves large areas away from public, the monitoring agencies and the press. Therefore, the probability of detection and arrest of forest offenders are low in some areas. Some policies created by the state government also encourage to this issue. For example, it is believe that some state governments have charged very high tender price for timber harvesting rights and it was reported that some states charge price for timber very much above expected stumpage value of the standing timber (Rusli, 2001). This has caused timber companies to log areas that not allocated to them in order to recover as much cost as possible from timber harvesting operations.

Impact of illegal logging in Peninsular Malaysia has been classified into two categories namely direct and indirect impact. Direct impact is related to lost of revenue to the state government in form of premium, cess and royalty (Rusli, 2001). While, indirect impact relate to damage of forests and lands, lost of wildlife and the possibility of extinction of endangered species. Those lost are difficult to be valued and assessed. In Malaysia, very little study has

been done to determine indirect impacts due to illegal logging.

This study will only focus on the illegal logging in Peninsular Malaysia as the FDPM is responsible to the management of forest policy and the implementations in Peninsular Malaysia. The management of lands and forests are the legislative of individual State Forest Departments in Peninsular Malaysia while Sabah and Sarawak have their own management and legislative. The authority of the FDPM extends to the provision of advice and technical assistance to the states, training and the conduct of research, unless the state agrees to delegate some of their authority to the Federal Government or FDPM. FDPM also is responsible for policies and international cooperation among others (FDPM, 2003). The main objectives of this paper are to highlight the current situation of illegal logging in Peninsular Malaysia and trends of illegal logging from 2001 to 2010. Then, the paper will determine whether the illegal logs are significance or not significance with the legal log productions in Peninsular Malaysia from 2005 to 2010. This study is important for the FDPM as the executor of government policy to see how critical illegal logging in Peninsular Malaysia and the department could find out new solutions to curb this problem.

Malaysia has defined the illegal logging as any activities that include offenses relating to logging without permit, logging outside a licensed area and construction of infrastructure including unauthorized building of forest roads (FDPM, 2003). In Peninsular Malaysia, three categories are used to classify forest offenses. Three categories to classify forest offenses are; Category I: Cover offences involving logging without licenses and logging outside license area and unauthorized construction of infrastructure and forest roads, Category II: Cover encroachment of forest reserves for agricultural activities and settlements and Category III: Cover other forest offences that involves felling of unmarked trees, cutting trees below the cutting limit, unlicensed workers and contractors with no valid sub-licensed, unregistered machinery plus other bleaches of rules and regulations committed within and outside the forest reserved (FDPM, 2003).

Malaysia is among the most important remaining natural forests in the world and the world's largest supplier of tropical saw-logs, sawn-wood and veneer and the second largest supplier after Indonesia for tropical plywood (ITTO, 1999). The export value of forest products in 2008 accounted for RM 2,322,170.00 or 1,426,987 m³ (MTC, 2009). In 2009, Malaysia's exports to the European Union (EU) accounted around 6.5% of total exports or 1.6 million m³ roundwood (Anon, 2012). Timber industry is the fourth largest income to Malaysia economy as a contribution of 8% to total Gross Domestic Product (GDP) amounted to RM 9,791 million in 2008. In this regards, Malaysia is fully committed to manage its natural forests sustainably in the overall context of sustainable development.

Uncontrolled illegal logging in Peninsular Malaysia became a concern in the early 1990s due to increasing demand for timber and timber products that are produced legally and from sustainably managed sources by the international market especially from environmentally sensitive markets such as EU and the United States. Illegal logging in Peninsular Malaysia is not new problems and had repeatedly been occurring during the last few decades. The amount lost to illegal logging and corruption annually is about RM 800 million to RM 900 million worth of timber which amount to about 5% of Malaysia total timber export around RM 20 billion (TI-M, 2012). NGOs also claimed that forest practices in some parts of Malaysia are unsustainable and over-cutting timber harvesting and reported that Malaysia has 35% of illegal logging rate and 40% of Malaysia's consumption and export of timber was estimated to have been acquired illegally (Greenpeace, 2004).

The Malaysian Government confirmed statement that level of illegal logging is less than 5% of all logging activities and most of the illegal logging occurred in the remote areas where low risk of detection by the forestry enforcement and at places where logs can quickly be converted to lumber (Seneca, 2004). Malaysian Government is confident that illegal logging in Malaysia is not as rampant as it is commonly perceived to be and all the procedures and measures are in place to combat illegal logging in Malaysia. In recent years, the detection cases of illegal logging from year 2000 to 2007 are 197 cases

as compare during the late 80s to 90s in the same period from 1987 to 1993 were 1565 cases in Peninsular Malaysia (FDPM, 2012). The declining of the cases between those periods is due to the strategies and counter measures that have been made by the FDPM. The Malaysian Government is very serious in combating illegal logging. In 1993, the National Forestry Act 1984 (NFA) was amended to introduce higher penalties and increased length of imprisonment for the forest offenders (Rusli, 2001). Malaysia has outlined strategies to further strengthen procedures and measures to combat illegal logging such as strengthen forest law enforcement and monitoring, allocate more resources to undertake effective forest law enforcement and educating public and forest communities, and equipped with relevant and adequate knowledge and skills.

Currently, total forested land in Malaysia is 5,807,383.53 ha and the timber productions from 2005 to 2010 are 24,457,638 m³ while total illegal timber productions within the same periods are 27,572 m³ (FDPM, 2012). On the other hand, the detection of illegal logging in the Permanent Reserved Forests (PRF) and the government land from 2006 until 2011 are 222 cases. This value can be considered as the current illegal logging cases in Peninsular Malaysia. The table shows that PRF is very exposed for illegal logging with 158 cases as compare to government lands. This is because lands that were established as PRF are more than government land and the forest areas licensed for harvesting are more on PRF than government land.

Forest policy and legislation in Peninsular Malaysia

Forest policy and legislation in Peninsular Malaysia is under the Article 74(2) of the Malaysian Constitution, land and forestry come under the jurisdiction of the respective State Governments. As such, each state is empowered to enact laws on forestry and to formulate forestry policy independently. The management of lands and forests are also defined by the constitution as state matters and forests are managed by the state forestry department. The federal government only provides technical advice and assistance on forest management, training, the conduct of research and in maintenance of experimental and demonstration

stations. Timber harvesting rights are allocated to private timber contractors firms through a system of forest licenses. Licenses are tendered to the private firms for periods of 5 to 20 years to the individuals (companies) or state entities.

The most important policy related legislation in terms of forest law and enforcement is the National Forest Policy, 1978 (NFP). NFP was formulated and implemented by all states in Peninsula Malaysia and has remained the basis for forestry practices. The NFP forms the basis for the classification of roles and hence the use and management of the forest although only the states in Peninsular Malaysia subscribe to the NFP. The critical concept in the NFP is the constitution of a PRF which must be determined by the states and its security assured. Under the forestry laws, the PRF is classified into categories depending on the degree of protection and use (NFP, 1992). These forests are under jurisdiction of the Forest

Departments, while other protected areas such as national parks and wildlife sanctuaries are managed by other agencies such as Wildlife Department and National Parks Department at either state or federal levels (Weng, 2002). The protection forests within the PRF under the jurisdiction of the Forestry Departments, which are given protection status and where commercial logging is prohibited and are also part of the protected areas of the country (NFP, 1992).

In terms of implementation, the National Forestry Act (NFA) 1984 was formulated and endorsed to further uniform and strengthened in areas of forest management planning and operations as well as strengthen the provisions for safeguarding and protecting forest resources from encroachment and illegal logging (Chiew, 2004). The NFA 1984 then was amended in 1993 to provide stiffer penalties for forest offenders.

Table 1: Percentage comparison between legal timber production and illegal timber production in Peninsular Malaysia from 2005 to 2010

	2005	2006	2007	2008	2009	2010
Legal timber Production (m³)	4,405,091	3,806,316	4,189,222	4,208,724	3,686,717	4,161,568
Illegal timber production (m³)	1,345	6,537	2,980	9,778	4,297	2,635
Percentage (%)	0.03	0.17	0.07	0.23	0.12	0.06

Source: FDPM (2012)

Table 2: Number of illegal logging cases detected from 2006 to 2011

Status	2006	2007	2008	2009	2010	2011	Total
Permanent Reserved Forests	23	20	29	22	43	21	158
Government lands	11	18	13	8	11	3	64
Total	34	38	42	30	54	24	222

Source: FDPM (2012)

The amended act gave huge impact to the forestry sector in Peninsular Malaysia especially in the issue of illegal logging. All these acts are also supplemented by the Wood-Based Industries Act 1984 which regulates to ensure the rational development of wood-based industries in the country. The other related regulation that affects

forestry for Peninsular Malaysia include the Land Conservation Act 1960, National Parks Act 1980, Protection of Wildlife Act 1972, Aboriginal Peoples Act 1954, Forest Rules 1985, Environmental Quality Act 1974, National Land Code 1965 and Occupational Safety and Health Act 1994. These acts are currently being adopted by all states in Peninsular Malaysia (FDPM, 2003).

2. Materials and Methods

The study was conducted from November 2012 until May 2013. Malaysia is located in the South-East Asia comprises two distinct regions namely Peninsular Malaysia and East Malaysia comprising Sabah and Sarawak. The study generally focused on Peninsular Malaysia. In 2009, the total forested land in Peninsular Malaysia is about 5.89 million hectares (FDPM, 2009). The sources of the data are from the Division of Enforcement, Forestry Department Peninsular Malaysia (FDPM) as the main sources. In addition, for some reports and sources from other official governments agencies, FAO (STAT), UNFCCC, ITTO, Illegal-Logging.info, NGOs, Forest Trends and other organisations were also used to support and complete this study and analysis.

Upon settling the study, reasonable analytical assumptions was ran to determine the objectives of this study. Graphical analysis was done in order to observe the trends of illegal logging cases in Peninsula Malaysia from 1987 to 2000. Analytical assumption that has been used in this study was used from a review of the literature and was adjusted to fill the needs and of this study. For purpose of analysis, correlation analysis will be developed to determine the strength of the relationship between independent variable (IV) and dependent variable (DV). For this analysis, the IV is illegal log production and DV is log production. Then, the variables will be analysed by means of correlation analysis. In this analysis, illegal log productions as independent variable will influence the direction and strength of log production. The relationship between two variables will show analytically the situation of illegal logging in Peninsular Malaysia whether it significant or not. If it significant, it means the situation is worse and quick effective action plan must be prioritised. Otherwise, if it not significant the situation is under control and long-term plan

must be prepared for the sake of sustainable forest management in Peninsular Malaysia. The data was then analysed statistically.

3. Results and Discussions

Trends of illegal logging in Peninsular Malaysia from 2001 to 2010

Figure 1 shows the trends of illegal logging in Peninsular Malaysia from the period of 2001 to 2010. The total cases of illegal logging from those periods are 365 cases and year 2010 has recorded the highest case with 54, while 2005 has recorded the least case with 28. The average case within that period is 66 cases or 18% per year. The percentage of average cases can be considered as low. Graph also shows a linear increasing trend for the illegal logging case for those periods. Starting from 2005, after the case fluctuated, illegal logging cases show increasing trend until year 2008 with 42 cases and decrease by 12 cases to 30 cases in 2009 but drastically increased 24 cases in 2010 to 54 cases. Overall, illegal logging cases still low as for the highest cases percentage in 2010 is 15% (54) of all cases.

Correlation results between legal and illegal log production from 2005 to 2010

The result shows legal and illegal log productions have a weak negative relationship as $r = -0.271$. This indicates that changes in legal log productions are weakly correlated with changes in illegal log productions. There is also statistically not significant correlation as $p = 0.603 > 0.05$. This means increase in legal log productions do not significantly relate to decrease in illegal log productions and can be concluded that increase in

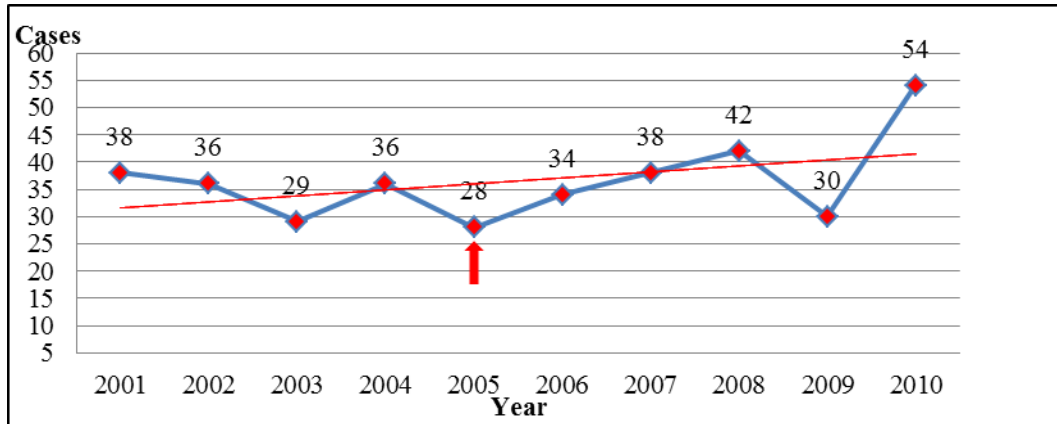


Figure 1: Trends of illegal logging in Peninsular Malaysia from 2001 to 2010

legal log productions are inversely relate to illegal log productions. There will be fewer illegal log productions when the legal log productions are increased. Illegal logging is a crime that is almost impossible to stop or eliminate it. Therefore, this study could be the preliminary for FDPM to plan or review forest policy and legislation to control and prevent illegal logging from become worse. Even though the study showed that log productions and illegal log productions in Peninsular Malaysia is not significant but early actions and aware are important as the problem is unpredictable. The trends showed that it slowly increasing and it should be an early sign or reason for the department to take action. The correlation analysis has determined that legal log productions are not influence by the illegal log productions. Analytically, the result is proved because if compare to the illegal logging cases from 2005 to 2010 total cases are 226 cases or average 38 cases per year for those periods. The illegal log productions came from 226 cases of illegal logging from 2005 to 2010. Therefore, from the study we can conclude that currently, the situation of illegal logging in Peninsular Malaysia is under control but some effective long-term strategies should be prepared to curb this problem as the trends are increasing.

The study however shows current situation of illegal logging in Peninsular Malaysia and the department should consider this study as a preliminary to prepare for better action in controlling illegal logging. The FDPM is always committed in this issue and many strategies have been outlined to deter forest offenders from committing the forest

crimes particularly illegal logging especially strengthens forest law enforcement and monitoring activities. The strategies that have been implemented include allocating more forest resources to undertake effective forest law enforcement, amended NFA 1984 to introduce higher penalty and imprisonment, increased capacity building and human resources in the enforcement division and equipped them with modern detecting technology such as GPS, remote sensing, hyperspectral imaging and electronic tracking (Abdul, 2010).

4. Conclusions

In conclusion, illegal logging should be treated from its root as it involves a large amount of money that drives the forest offenders to commit to this crime. Furthermore, the problem also caused the government lost in revenue and income in forestry sector that will restrict other development. The most important strategies in dealing with illegal logging are, the department should give more attention to strengthen the forest policy and enforcement division. The enforcement should carry frequent monitoring, detecting and checking for the illegal logs and logging. They also should be given some credits as recognition and appreciation that showed outstanding performance, values and moral. Indirectly, it will prevent corruptions among the enforcers especially who dealing with the loggers instead of improve systems and procedures for better transparency. More studies should be done with regard to illegal logging and corruption in Malaysia and the role of stakeholders in preventing illegal

logging if necessary.

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