

THE LOGGING BAN POLICY IN ADDRESSING DEFORESTATION: A COMPARISON BETWEEN THAILAND AND INDONESIA

Safrina *

Abstract

The logging ban policy is applying in several countries, such as Thailand and Indonesia, in order to deal with deforestation and forest degradation in natural forests. However, both countries still have had difficulties resolving the problem. The logging ban in Thailand does not work as expected due to centralized systems of forestry policy that still applies in Thailand. However, Indonesia is actively adjusting the decentralized system, which gives authority to local governments to set policies regarding forestry. The effectiveness of logging ban to achieve conservation goals and economic development continues to be debated; however, it should be noted that the logging ban is not a stand-alone policy. The policy should be supported by other policy and it should also consider factors such as availability of human resources and adequate budget for the implementation. The underlying issue is also important to measure in order to formulate proper planning arrangement so that a comprehensive solution can be found to combat deforestation and forest degradation.

Keywords: *logging ban policy, deforestation, forest degradation*

I. INTRODUCTION

Partial or total logging ban has been imposed in some countries in order to solve deforestation and forest degradation problems in natural forests. Meanwhile, debates still continue about the effectiveness of this instrument and its effect on development and environmental protection.¹ Amid the debate, logging moratoriums are likely to be one of the ways to promote conservation and protection of forests and also can be a breathing space for government to reorganize forest policy in order to reach sustainable forest management.

* Safrina, Lecturer of Faculty of Law, University of Syiah Kuala, Banda Aceh. Institutional Affiliation of University of Syiah Kuala (UNSYIAH) Banda Aceh. Mailing address Fakultas Hukum Universitas Syiah Kuala. Kopelma Darussalam, Banda Aceh 23111 (safrina_74@yahoo.com)

¹ FAO Report 2010, ‘Asia-Pacific Forestry Towards 2010: Report of the Asia-Pacific Forestry Sector Outlook Study, Forest Resources and Land Use <<http://www.fao.org/docrep/w9615e/w9615e09.htm#causes%20of%20deforestation%20and%20forest%20degradation>>

This paper examines the implementation of the moratorium logging in Thailand and Indonesia to address deforestation. It will be divided in four sections. Firstly is an introduction; secondly I will describe deforestation and forest policy in both countries and give an overview of logging ban policy, the challenges and possible barriers in practices. The third part will discuss forestry arrangements between the two countries by using criteria, which are (i) Forestry policies where Thailand is still applying centralized system, while Indonesia has changed into decentralized forest management, and (ii) stakeholder participation in dealing with deforestation and forest degradation. The last sections will summarize the discussion.

II. THAILAND

A. An overview of deforestation and forest policies

Rapid substantial deforestation has reduced Thailand's native forest areas over many years. In 2006, the total forest cover in Thailand was estimated to be about 15,865 million hectares (ha) representing over 30 percent of 513,000 square kilometers (51,31 ha) of the total land areas compared to 1961 where forest areas were estimated around 27 million ha covering over 53.33 percent of the national land area. Moreover, the rate of deforestation from 2000 to 2005 was at 1, 07 percent; that is higher than the period from 1991 to 1998 at level 0.73 percent.²

Deforestation in Thailand was caused, initially, by population growth; commercial logging that was followed by illegal logging and change of land use for agriculture and also shifting cultivation practices. Recently, since Thailand is continuing to experience economic progress, the destruction of forest is also caused by the development of dams, road and highway constructions and land settlements.³ To deal with deforestation and forest degradation, in 1896 the Ministry of the

² Ministry of Natural Resources and Environmental Thailand 2008, 'Reducing emissions from deforestation and forest degradation in the Tenasserim biodiversity corridor (BCI pilot site) and national capacity building for benchmarking and monitoring', viewed 12 September 2011,

<http://www.gms-eoc.org/ClimateChange/docs/REDD_Proposal_Draft.pdf>.

³ Wannitkul 2005, 'Deforestation in Northeast Thailand, 1975-1991 result of a general statistic model', Journal of Tropical Geography, vol. 26, no. 1, pp. 102-118.

Interior established the Royal Forest Department (RFD) to conserve forests and control the revenue from logging. Furthermore, the Thai government has enacted several forest acts, which are the Forest Protection Act of 1913, the Wildlife Protection and Preservation Act of 1960, the National Park Act of 1961 and the National Forest Reserve Act in 1964. In 1989, the logging ban was declared in response to massive flooding in southern Thailand. This is the second banned logging after the previous one from 1979 to 1983 regulated banned logging on 50 percent of the logging concession.

A number of national plans have been enacted, including the First National Economic and Social Development Plan (NESDP) in 1961 that aimed to protect 50 percent of Thailand's forest areas and the second NESDP (1967) that reduced the protected areas to 40 percent. The first National Forest Policy was announced in 1985; it conserved 25 percent of production forests and 15 percent of conservation forests. Moreover, after the logging ban was imposed in 1989, it became the most phenomenal form of forest conservation from the RFD, because it formally broke the connection between RFD and logging concession holders. So far the relationship between RFD and concessioners has raised questions about sustainability of forest conservation in Thailand.⁴

B. Logging ban policy in response to the disaster

In 1988, massive flooding followed by landslides destroyed 16 villages in southern Thailand. The disaster not only caused economic losses but also the deaths and injuries of many people.⁵ Due to persistent public pressure and the magnitude of the impact of the disaster, on 17 January 1989 the Royal Thai Government (RTG) officially imposed a total logging ban in natural forests for all commercial interests and encouraged forest conservation. This policy revoked "all logging licenses in natural forests, effectively banning commercial logging, particularly

⁴ Lakanavichian, 2010, 'Impacts and effectiveness of logging bans in natural forests: Thailand, FAO Report <<http://www.fao.org/DOCREP/003/X6967E/x6967e09.htm>>

⁵ Sricharatchanya, 1988, 'Logging ban lopped government backs down from total ban', Far Eastern Economic Review.

in the uplands”⁶and dismissed all application for new licenses.⁷ The ban aims to protect all the remaining natural forests and law enforcement for forest destroyers.

The Thai Forestry Sector Master Plan (TFSMP) was launched in 1993 in response to National Forest Policy; it requires long-term development of forestry sectors along socio-economic, technological and institutional lines. Conservation of forest resources and biodiversity guidelines proposed by the TFSMP are legislated in the People and Forestry Environment government programmed. This programmed is concerned with the conservation of representative ecosystems and diverse biological resources in protected areas, as well as conservation of biological resources outside protected areas.⁸ The master plan regulates the national target for conservation of natural forests 25 percent from 15 percent in 1985 respectively. Unfortunately, TFSMP was not supported by “opposition from various groups”, including environmental NGOs, resulted in obstructed implementation.⁹

In addition, Thailand is still implementing centralized forest management. The Minister of Natural Resources and Environment has authority over forestry regulation and the RFD is the key institution to coordinate the implementation of forest management and development. In the logging ban policy, other institutions involved are the Forest Industry Organization (FIO) and the Ministry of Agriculture and Cooperatives, which are responsible for supervising the implementation of the policies. The RFD has technical bureaus which have responsibility for forest conservation, namely the Natural Resources Conservation Bureau (*in situ* conservation), Technical Forestry Bureau (*ex situ* conservation) and Plantation Promotion Bureau (*ex situ* conservation), as well as regional and local administrative offices.¹⁰ Furthermore, the

⁶ Jantakad and Gilmour 1999 in Lakanavichian, 2010, *op.cit.*

⁷ Waggener, 2010, Logging bans in Asia and Pacific: An overview, FAO Report <<http://www.fao.org/DOCREP/003/X6967E/x6967e04.htm#bm04>>.

⁸ Royal Forest Department 1993 in Emphandhu, 2002, ‘Major governmental bodies in Thailand: Their functions and policies in conservation’ in Koskela 2002, ‘Proceedings of the Southeast Asian Moving Workshop on Conservation, Management and Utilization of Forest Genetic Resources’, Bangkok, Thailand.

<<http://www.fao.org/docrep/005/AC648E/ac648e00.htm#Contents>>

⁹ Lakanavichian, 2010, *op.cit.*

¹⁰ Sutthisrisin & Noochdumrong 1998 in Emphandhu, 2002, *op.cit.*

FIO's role in conservation of forest is limited due to the plantation areas expanding.¹¹

In addition, the implementation of the ban on logging has changed forest policy strategies in Thailand from production to conservation. Conservation activities still continue continued due to the failure of logging ban policy.

III. INDONESIA

A. An overview of deforestation and forest policies

Deforestation is one of major concerns in Indonesia due to the reduction of forest areas annually. Based on data from the Ministry of Forestry¹², deforestation rates in the period of 2000 to 2005 averaged 1.09 million hectares/years mainly due to the change in land use¹³, such as conversion of forest into plantation areas, especially for palm oil industry, timber industries that have abused the concession granted to illegal logging and also clearing of forest land for agriculture and shelter. Lack of effective management and enforcement of the protection of forest areas is also suspected as the cause of forest losses in Indonesia.¹⁴

The basic forest legislation in Indonesia is the Forestry Law no. 5/1967, which has established state ownership and control over all forest lands. All forests are state forests; the law does not recognize the existence of indigenous forest as well. Since political reform in Indonesia in 1999, the forestry law was replaced by the Forestry law no. 41/1999, which then became the basis of the forest policy in Indonesia. The law still grants the state control over land but there are developments in the process of decentralization and community participation in forest

¹¹ Lakanavichian, 2010, *op.cit.*

¹² Ministry of Natural Resources and Environmental Thailand 2008, *op.cit.*

¹³ Hunt, 2010, 'The cost of reducing deforestation in Indonesia, Bulletin of Indonesian Economic Studies, vol. 46, no. 2, pp. 187-193, viewed 8 August 2011.

¹⁴ World Bank Report 2010, 'Indonesia forest strategy', viewed 8 August 2011,
<<http://siteresources.worldbank.org/INTINDONESIA/Resources/Publication/280016-1152870963030/IDForestStrategy.pdf?resourceurlname=IDForestStrategy.pdf>>

protections.¹⁵In addition, in providing plan on the management, exploitation and use of forest land, Indonesian government has established national forest policy, Regulation no. 34/2002. The main objective of the law is to allow the authority of the Ministry of Forestry to produce “Commercial Timber Utilization Permits (IUPHK)” and restrict the authority of local government to do so. The ministry also has the authority to control “domestic timber transport and marketing and domestic wood processing industries”¹⁶

In strategy practices in 1989, Indonesia introduced the Indonesian Selective Cutting and Planting System (TPTI) in order to place an important on “natural regeneration and enrichment planting”. This system is promoted on a “limited scale, and wherever appropriate, by a system of clear cutting with natural or artificial regeneration”. However, the system was still not implemented properly by the most of concessionaires.¹⁷ Consequently, forest destruction still happened.

B. Logging ban policy and potential barriers for implementation

As part of the contribution to reduce world’s greenhouse gas emission that potentially causes global warming, Indonesia and Norway have established the Letter of Intent (LoI) on “Cooperation on reducing greenhouse gas emissions from deforestation, forests degradation and peat land conversion”. In order to realize the agreement, the Indonesian government regulates the Presidential Instruction (PI) no. 10/2011 regarding “suspension of granting new licenses and improvement of natural primary forest and peat land development”.

The PI regulates the moratorium on new licenses for forest exploitation for two years provides orders for the relevant departments and local governments to take some strategic steps in order to support the program. Departments and local governments involve dare those associated with the forestry licenses for operating lands state including (1) the Ministry of Forestry, (2) the Ministry of Home Affair, (3) the

¹⁵ McDermott, Cashore, & Kanowski, 2010,’Global environmental forest policies’, Earth scan Publishes, UK.

¹⁶ Singer 2009 in *ibid*

¹⁷ FAO Report 2010, *op.cit.*

Ministry of Environment, and (4) and the governments where forest areas are located. Furthermore, there are some agencies that are directly responsible for the President, namely (1) Head of Presidential Unit for Monitoring and Control of Development, (2) Head of National Land Agency, (3) Head of National Spatial Planning Coordinating Agency, (4) Head of National Survey and Mapping Coordinating Agency, and (5) Head of REDD (Reducing Emissions from Deforestation and forest Degradation) and Taskforce or Head of the institution formed to implement REDD.

The protected areas based on the map, namely the “indicative map”, it provided by Minister of Forestry and updated every 6 months. The map outlines protected areas including primary forest within production forest lands, protection forest lands, conservation forest lands, and land for other use, and peat land areas. However, the map fail to differentiate between “Forest lands and Non Forest Lands” due to unclear data provided.¹⁸

In addition, the PI could be a potential solution to solve deforestation but there is doubts emerging among the public about the effectiveness of moratorium and some potential barriers that might create a new practice of illegal logging. Among them is the discrepancy between what is stipulated in the LoI and in the PI related to protected forests. LoI use the term of “natural forest” but the PI use “primary forest” defined as the forest that has not been damaged by humans. It seems like there is incompatibility with expectations of all parties in LoI due to narrow understanding of natural forest in the PI¹⁹ that may also raise questions about these secondary forests that have been excluded from the law. The ambiguity may cause loopholes to be broken. A problem is also emerging related to coordination among actors especially central and local government related to the implementation of the policy that may raise conflict of interest and overlapping in the licensing of forest

¹⁸ Wells & Paoli, 2011, ‘An analysis of Presidential Instruction no. 10, 2011 Moratorium on Granting of new Licenses and improvement of natural primary forest and peat land governance’, Daemeter Consulting, viewed 8 August 2011.

¹⁹ *ibid*

utilization.²⁰²¹²² Like most developing countries, Indonesia is also experiencing problems in the implementation of the law. The strong and clear national policy instruments in place to “strengthen the moratorium, implement and enforce” is a necessity.²³

IV. DISCUSSIONS

A. Decentralized and Centralized system of forestry management

The decentralization and devolution in forestry policy have risen in response to forest governance. These terms are considered to be more close to people and could allow control systems in the form of checks and balance in order to limit governmental control and to be more responsive to the needs of people.²⁴ Moreover, this system will lead to effectiveness and efficiency of service to achieve equality and social justice.²⁵ Indonesia is one of countries that's give more attention to the implementation of a decentralized system of forestry policy, whereas forest management in Thailand is still centralized where the policy originated from the central government. The question is whether the difference is a measure of successful implementation of the forestry policy?

After a long history of centralized government, Indonesia is implementing regional autonomy through the law no. 22/1999, which legally gives authority to local governments except policies regarding national security, financial, legal, development planning and religion.²⁶ This law

²⁰ Singer 2009, *op.cit.*

²¹ McDermott, Cashore, & Kanowski, 2010, *op.cit.*

²² Capistrano, 2008, ‘Decentralization and Forest Governance in Asia and the Pacific: Trends, lessons and continuing Challenges’, in Colfer, Dahal, Capistrano, 2008, ‘Lessons from forest decentralization money, justice and the quest for good governance in Asia-Pacific’, Earthscan, UK.

²³ Priyambodo 2011, ‘NGOs call for review of existing clearance permits’, viewed 26 August 2011, <<http://www.antaranews.com/>>.

²⁴ Colfer, Dahal, & Moeliono, 2008, ‘Setting the stage: Money and Justice in Asia and Pacific Forests’, in Colfer, Dahal, Capistrano, 2008, ‘Lessons from forest decentralization money, justice and the quest for good governance in Asia-Pacific’, Earthscan, UK.

²⁵ Turner & Hulme 1997 in Colfer, Dahal, and Moeliono 2008, *op., cit.*

²⁶ Kadjatmiko 2008, ‘Implementing decentralization: Lessons from experiences in

establishes “a non-hierarchical distribution of authority” between central and local government but the Forestry Law no. 41/1999 shows that there is a strong role of the central government to control forestry policies. In addition, the impact of the imposition of government regulation No.34, which regulates the central government’s authority to license and control the transportation and marketing of wood, reinforces the dominance of the central government’s policy regarding forestry. So the goal of decentralization of forestry policy is still far from expected. However, this also raises a conflict of interest and overlapping in the licensing of forest utilization²⁷ and shows the inconsistency in the Indonesian forest policies that impact on the cooperation between central and local governments.

Meanwhile, Thailand is still adopting a centralized system to their forestry policy. The central government, through RFD as a primary institution in forest management, has authority to set policy forestry arrangement but this is not matched with the availability of adequate human resources. Therefore, the role RFD should be re-assessed and modified so as to develop a vision for the future, restructuring and re-thinking the corresponding responsibilities (Lakanavichian 2001).²⁸

In addition, the background of the policy affects the implementation process as well. Like many countries that implement the logging ban, such as China, Laos PDR, Thailand’s logging ban policies appear in a state of crisis in response to the disaster in southern Thailand, while in Indonesia was strongly influenced by the world’s commitment to reduce greenhouse gas emissions that believed cause global warming. Although its background of application is slightly different, both have the same spirit of an emergency condition with a different scope.

In a policy made at the “crisis time” the policy has a tendency to not pay attention to profound impact analysis on the comprehensive policy implementation and “tend to be incremental, action-oriented steps that deal only partially with the system’s underlying problems”. Learning from logging bans in China that were also caused by the disaster, the

Indonesia’, in Colfer, Dahal, Capistrano, 2008, ‘Lessons from forest decentralization money, justice and the quest for good governance in Asia-Pacific’, Earthscan, UK.

²⁷ McDermott, Cashore, & Kanowski, 2010, *op.cit.*

²⁸ Lakanavichian, 2010, *op.cit.*

policy is proven to work because the process is accompanied by careful planning and comprehensive problem solving with respect to various dimensions including recognition of the possible consequences.²⁹ In Thailand, although the government has issued various strategic plans for implementation, its weakness lies in unwillingness from the Thai government to adopt the idea of “participatory approaches and decentralized forest management and conservation”. In addition, the public agencies that administratively are responsible for forest protection should be more involved and establish collaboration with local communities and NGOs.³⁰ The root of forest management problems in Thailand as well as other developing countries is that practices have been (are still) influenced by political issues. Logging ban policy had to change the policy direction from seeing the forest as a commodity market to the protection of its natural resources. However, in a short time this policy seemed to have triggered deforestation by loggers that have been operating with cutting before the policy takes effect.³¹

In Indonesia, although the system has been changed, however, it should be noted that there is a tendency to return to centralized governance when the decentralization process has been effectively run, especially in a country that once had a strong centralized basis³² like Indonesia. Moreover, decentralization and forest governance are essential in achieving sustainable forest management; however, as said by M.S Kaban, former forestry minister of Indonesia, decentralization is a dynamic process which involves continuous learning and experimentation. Decentralization is not merely “transfer the power, authority and burden of management-it also means sharing responsibility and creating net positive benefits for local communities”.³³

In addition, both countries have problem in the implementation process. Lack of clear and strong policy strategies for implementation, coupled with the poor of coordination and ineffective procedures be-

²⁹ Waggener, 2010, Logging bans in Asia and Pacific: An overview, FAO Report <<http://www.fao.org/DOCREP/003/X6967E/x6967e04.htm#bm04>>.

³⁰ Lakanavichian, 2010, *op.cit.*

³¹ Wannitikul, 2005, ‘Deforestation in Northeast Thailand, 1975-1991 result of a general statistic model’, Journal of Tropical Geography, vol. 26, no. 1, pp. 102-118.

³² Colfer, Dahal, & Moeliono, 2008, *op., cit.*

³³ M.S Kaban 2008 in Colfer, Dahal, and Moeliono 2008, *op, cit.*

tween central and local government, has caused the implementation process to be hardly implemented. Another point that should be noted is policy arrangement in two countries is highly influenced by political purposes as the result of corruption, poor staffing and inadequate equipment.³⁴³⁵

B. Public participation to achieve forest governance

Recently, a demand for active public involvement in forestry decision-making has increased³⁶; since it is believed to strongly support the success of forestry management. In Thailand, after the implementation of the Community Forest Act in 1990, the TFD gave attention to the protection of the status of the land. The government began to realize that participatory can promote the establishment and management of sustainable forest protection. However, the regulation does not work and give smalls influence to forest communities due to the lack of legal framework for implementation.³⁷ In addition, Thailand has a history of successful implementation of Integrated Environmental Management (IEM) in the handling of the Songkla Lake Basin in Southern Thailand. This program is a collaboration with the Danish Cooperation for Environment and Development that aims to implement “Strategic Environmental and Development Planning Framework” with a base of a strategic and participatory approaches to environmental planning.³⁸ The strength of this program is the support of donorsthat provide particular assistance with technical support for the development of baselines and socioeconomic assessments. Moreover, this program may be a strategic

³⁴ Lakanavichian, 2010, *op.cit.*

³⁵ Wibowo, 1999, ‘Deforestation, Capital Accumulation and Consumption: Strategic Implications for sustainable Development’, Proceeding of the International Sustainable Development Research Conference, March 25-26, 1999, University of Leeds, UK, pp.394-400.

³⁶ Sheppard and Meitner 2004, ‘Using multi-criteria analysis and visualization for sustainable forest management planning with stakeholder groups’, Forest Ecology and Management, vol. 207, pp. 171-187.

³⁷ Lakanavichian, 2010, *op.cit.*

³⁸ Chufamanee & Lonholdt 2001, ‘Application of integrated environmental management through the preparation of an environmental action programme: Case study from the Songkla Lake Basin in Southern Thailand’, Lake and Reservoirs: Research and Management, no. 6, pp. 323-334.

policy that can be used for forest policy as well.

In Indonesia, however, a moratorium would be expected not support the existence of customary community. The main problem lies in the basic Forestry Law no. 41/199, which, although showing progress in relation to decentralization and public participation³⁹⁴⁰but also enforce centralized forest management and still maintains control to the land, including customary forest that, based on Forestry law, become part of state forests. Consequently, community cannot have access to protect customary forest from illegal logging.⁴¹In addition, Nepal's community forestry is one of successful examples of forest governance that has been built on combination between progressive legislation and decentralization of forestry management. Despite the challenges that mainly come from the implementation process, such as imbalances between social needs and the environmental agendas but the success of decentralization in Nepal has caught the world's attention because it is linked with the growing issues of "sustainable forest management, forest governance, policy advocacy, equity, gender, poverty and the role of civil society in community forestry".⁴²So it proves that forest governance can be achieved by involving many actors.

V. CONCLUSION

The logging ban in Thailand does not work as expected due to centralized systems of forestry policy that still apply in Thailand. Meanwhile, Indonesia is actively adjusting the decentralized system, which gives authority to local governments to set policies regarding forestry.

³⁹ Wollenberg & Kartodihardjo 2002, 'Devolution and Indonesia's new forestry law', in Colfer, Resosudarmo2002, Which way forward? People, forests, and policymaking in Indonesia', Resources for the Future, USA, pp. 81-95.

⁴⁰ Akiewwati et.al 2010, 'Stewarship agreement to reduce emissions from deforestation and degradation (REED): case study from Lubuk Beringin's Hutan Desa, Jambi, Sumatra, Indonesia, International Forestry Review, vol. 12, no. 12, pp. 349-360, viewed 5 August 2011.

⁴¹ McDermott, Cashore, & Kanowski, 2010, *op.cit.*

⁴² Dahal, Chapagain, 2008, 'Community Forestry in Nepal: Decentralized forest governance', in Colfer, Dahal, Capistrano, 2008, 'Lessons from forest decentralization money, justice and the quest for good governance in Asia-Pacific', Earthscan, UK.

However, both countries still have had difficulties resolving the problem. Political issue is suspected to be the basis of policy problems in both countries. So the policies produced tend to not look at the substance of issues but rather on where there is benefit to certain interests. The disadvantage lies in the lack of willingness of governments to be really serious about tackling the problem.

Stakeholder involvement is also a concern in achieving forest governance. Thailand already has law that specifically regulates community involvement in conservation. Meanwhile, Indonesia through the forest law also recognizes community involvement even though the law does not recognize the existence of indigenous forests where indigenous people make a living.

The effectiveness of the logging ban to achieve conservation goals and economic development continues to be debated; however, it should be noted that the logging ban is not a stand-alone policy. The policy should be supported by other factors such as availability of human resources and adequate funding for the implementation. The underlying issue is also important to measure in order to formulate proper planning arrangement so that a comprehensive solution can be found.

REFERENCES

- Akiefwati, R, et.al 2010, 'Stewarship agreement to reduce emissions from deforestation and degradation (REED): case study from Lubuk Beringin's Hutan Desa, Jambi, Sumatra, Indonesia, International Forestry Review, vol. 12, no. 12, pp. 349-360, viewed 5 August 2011.
- Capistrano, D 2008, 'Decentralization and Forest Governance in Asia and the Pacific: Trends, lessons and continuing Challenges', in Colfer, C.J.P, Dahal, G.R, Capistrano, D 2008, 'Lessons from forest decentralization money, justice and the quest for good governance in Asia-Pacific', Earthscan, UK.
- Colfer, C.J.P., Dahal, G.R., & Moeliono, M 2008, 'Setting the stage: Money and Justice in Asia and Pacific Forests', in Colfer, C.J.P, Dahal, G.R, Capistrano, D 2008, 'Lessons from forest decentralization money, justice and the quest for good governance in Asia-Pacific', Earthscan, UK.
- Chufamanee, P & Lonholdt, J 2001, 'Application of integrated environmental management through the preparation of an environmental action programme: Case study from the Songkla Lake Basin in Southern Thailand', Lake and Reservoirs: Research and Management, no. 6, pp. 323-334.
- Dahal, G.R, Chapagain, A 2008, 'Community Forestry in Nepal: Decentralized forest governance', in Colfer, C.J.P, Dahal, G.R, Capistrano, D 2008, 'Lessons from

- forest decentralization money, justice and the quest for good governance in Asia-Pacific', Earthscan, UK.
- Emphandhu, D 2002, 'Major governmental bodies in Thailand: Their functions and policies in conservation' in Koskela 2002, 'Proceedings of the Southeast Asian Moving Workshop on Conservation, Management and Utilization of Forest Genetic Resources', Bangkok, Thailand. Available at: <<http://www.fao.org/docrep/005/AC648E/ac648e00.htm#Contents>>
- FAO Report 2010, 'Asia-Pacific Forestry towards 2010: Report of the Asia-Pacific Forestry Sector Outlook Study, Forest Resources and Land Use, available at: <<http://www.fao.org/docrep/w9615e/w9615e09.htm#causes%20of%20deforestation%20and%20forest%20degradation>>
- Fisher, R.J 2000, 'Decentralization and Devolution in Forest Management: A Conceptual Overview in FAO Report, available at: <http://www.fao.org/docrep/003/x6898e/x6898e02.htm#P0_0>
- Hunt, C 2010, 'The cost of reducing deforestation in Indonesia, Bulletin of Indonesian Economic Studies, vol. 46, no. 2, pp. 187-193, viewed 8 August 2011.
- Kadjatmiko 2008, 'Implementing decentralization: Lessons from experiences in Indonesia', in Colfer, C.J.P., Dahal, G.R., Capistrano, D 2008, 'Lessons from forest decentralization money, justice and the quest for good governance in Asia-Pacific', Earthscan, UK.
- Kaban, M.S 2008, 'Foreword', in Colfer, C.J.P., Dahal, G.R., Capistrano, D 2008, 'Lessons from forest decentralization money, justice and the quest for good governance in Asia-Pacific', Earthscan, UK.
- Lakanavichian, S 2010, 'Impacts and effectiveness of logging bans in natural forests: Thailand, FAO Report, available at: <<http://www.fao.org/DOCREP/003/X6967E/x6967e09.htm>>
- McDermott, C.L, Cashore, B, & Kanowski, P 2010, 'Global environmental forest policies', Earthscan Publishes, UK.
- Ministry of Natural Resources and Environmental Thailand 2008, 'Reducing emissions from deforestation and forest degradation in the Tenasserim biodiversity corridor (BCI pilot site) and national capacity building for benchmarking and monitoring', viewed 12 September 2011,
Available at: <http://www.gms-eoc.org/ClimateChange/docs/REDD_Proposal_Draft.pdf>.
- Ministry of Forestry of Indonesia 2008, Forestry planning, viewed 26 Agustus 2011, Available at: <http://www.dephut.go.id/files/Statistik_Kehutanan_2008_Planologi.pdf>.
- Priyambodo 2011, 'NGOs call for review of existing clearance permits', viewed 26 August 2011, available at: <<http://www.antaranews.com>>.
- Sheppard, S.R.J and Meitner, M 2004, 'Using multi-criteria analysis and visualization for sustainable forest management planning with stakeholder groups', Forest Ecology and Management, vol. 207, pp. 171-187.
- Singer, B 2008, 'Putting the national back forest-related policies: The international forests regime and national policies in Brasil and Indonesia', International Forestry Review, vol. 10, no. 3, pp. 523-537, viewed 26 August 2011.

- Sricharatchanya, P 1988, 'Logging ban lopped government backs down from total ban', *Far Eastern Economic Review*.
- Wannitkul, G 2005, 'Deforestation in Northeast Thailand, 1975-1991 result of a general statistic model', *Journal of Tropical Geography*, vol. 26, no. 1, pp. 102-118.
- Waggener, T.R 2010, Logging bans in Asia and Pacific: An overview, FAO Report Available at: <<http://www.fao.org/DOCREP/003/X6967E/x6967e04.htm#bm04>>.
- Wibowo, D.H 1999, 'Deforestation, Capital Accumulation and Consumption: StrategicImplications forsustainable Development', Proceeding of the International Sustainable Development ResearchConference, March 25-26, 1999, University of Leeds, UK, pp.394-400.
- World Bank Report 2010, 'Indonesia forest strategy', viewed 8 August 2011, Available at: <<http://siteresources.worldbank.org/INTINDONESIA/Resources/Publication/280016-1152870963030/IDForestStrategy.pdf?resourceurlname=IDForestStrategy.pdf>>
- Wells, P & Paoli, G 2011, 'An analysis of Presidential Instruction no. 10, 2011 Moratorium on Granting of new Licenses and improvement of natural primary forest and peat land governance', Daemeter Consulting, viewed 8 August 2011.
- Wollenberg, E & Kartodihardjo, H 2002, 'Devolution and Indonesia's new forestry law', in Colfer, C.J.P, Resosudarmo, I.A.P 2002, Which way forward? People, forests, and policymaking in Indonesia', Resources for the Future, USA, pp. 81-95.