

Chapter 5

Sustainable Management of Natural Forests in the Asia- Pacific Region: Implications of Regional Economic Integration and Measures to Avoid Potential Environmental Harm

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Key Messages

- Asia's forests are resources of multiple-significance for the region and the planet as a whole—for community livelihoods, as a source of timber and fibre, for natural control over water flows, to store carbon and as home to many unique species and ecosystems.
- Deforestation and forest degradation are rapidly eroding these values.
- Regional trade in forest products is already extensive but could expand further due to continued trade liberalisation.
- Increasing production of forest products, driven by expanded trade and domestic demand, could place further stress on the region's forests.
- Regional initiatives play a key role in reducing such risks, as a complement to actions at the national level.
- This chapter recommends a number of actions that can be promoted through regional collaboration to reduce the potential harm of integration to forests: (i) developing responsible public and private sector procurement policies, (ii) establishing legal standards and verification processes, (iii) eco-labelling of wood-based and agricultural products, (iv) green building codes and standards, and (v) mandatory environmental and social lending criteria.

1. Introduction

Forests cover about 592 million hectares (ha) or 19% of the land area in Asia (FAO 2010) and provide a wide range of ecosystem services that are important locally, nationally and globally. Despite these services, high rates of deforestation and forest degradation are found in many parts of the Asia-Pacific region. While Southeast Asia holds only 5% of the world's forests, it experienced 25% of global forest loss between 2000 and 2010 (Blaser 2010) and the entire Asia-Pacific region experienced a net decline in forest carbon stocks between 1990 and 2010 (FAO 2010).

Given that countries in the region are becoming increasingly economically integrated, what, if anything, does this mean for the region's forests? Without strong environmental

controls in place, it seems likely that whilst some sectors or populations may benefit from integration under certain conditions, deforestation and forest degradation will continue to be major problems in the region. Conversely, if mechanisms to promote responsible trade, financing and investment are undertaken in parallel, new resources and institutions for forest management could be created. These observations lead to the following questions:

- How could regional integration affect forest resources?
- How can we protect forests, i.e., mitigate the potential damage?

These questions are considered timely as the Association of Southeast Asian Nations (ASEAN) aims to establish an ASEAN Economic Community by 2015, amid growing recognition of the importance of the region's forests as storehouses of biodiversity and carbon and how they can reduce the risk of disasters, as well as their values and use in adapting to climate change.

To answer these questions, this paper draws mostly on a literature review and a basic analysis of trade and investment flows. It begins with analysing the current status of economic integration in the region, explains why there is already a high degree of integration in the wood-based products sector and what factors impact integration, discusses the potential for specific integration instruments to impact forests through trade and investment flows in the sector, and concludes by suggesting a range of measures that could help protect forests from potentially harmful impacts of economic integration.

2. How integrated is the region's wood-based products sector?

Integration could potentially impact forest resources by increasing cross-border trade, financing, investment and labour flows in all sectors related to forests and forest land, i.e., forestry, agriculture, mining and energy, amongst others. This paper limits its analysis to the current extent of integration in the wood-based products sector, with the understanding that a comprehensive study that reviews integration impacts on other sectors relevant to forest resources and land is needed.

Economic integration can be defined as a staged process through which a group of countries gradually coordinate or merge their economic policies over time with the purpose of lowering trade barriers and other economic obstacles between them, thereby expanding markets and trade, lowering prices, and improving the competitiveness of trade partners through lower costs and economies of scale (USITC 2010). This *formal* integration includes the establishment of institutions, policies or legislation as outcomes of deliberate political actions. Integration can also be *informal* when economies begin to integrate with or without formal, authoritative intervention (Wallace 1990) and *substantial* in terms of the actual flow of commodities, finances and labour. Making this distinction allows analysis of both the *formal structures* that remove barriers between economies and *substantial integration* in terms of actual cross-border trade, finance, investment, labour, and commodity chains.

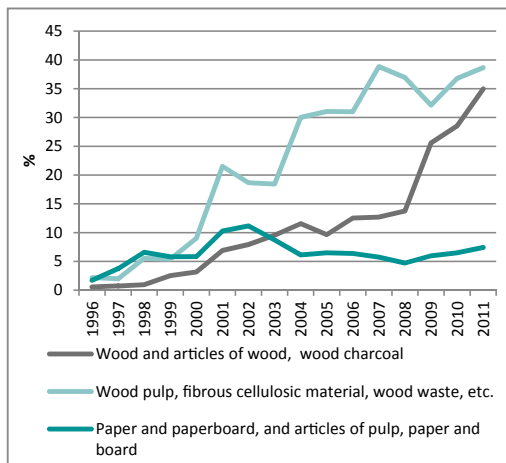
2.1 Intra-regional trade

Export and import statistics for major wood-based products show that a high degree of *substantial* integration already exists in the sector. The world's major tropical log trade

flows are found within the region. Malaysia is the world’s largest exporter of tropical logs, followed by Papua New Guinea (PNG) and Myanmar. In 2011, half of Malaysia’s log exports went to India, with the remainder taken by other Asian markets; PNG exported 90% of its logs to China; and 56% of Myanmar’s log exports went to India, with China taking another 30% (ITTO 2012). China is now the world’s largest tropical log importer, followed by India, Japan, Taiwan, and Republic of Korea (ITTO 2012). In 2011, 55% of China’s tropical log imports were from PNG and Solomon Islands (ITTO 2012), while 44% of India’s imports were supplied by Malaysia and 26% by Myanmar, with PNG also providing a significant volume (ITTO 2012). Viet Nam and Thailand also play important roles as staging posts for Mekong wood flows through to China, Republic of Korea and the rest of the world.

The Asia-Pacific region also accounts for much of the global trade in tropical sawnwood, veneer, plywood and secondary processed wood products (SPWPs).¹ In 2011, 58% of exports and 76% of imports of tropical sawnwood took place in the region (ITTO 2012). Malaysia, Thailand and Indonesia are the largest exporters, and China, Thailand and Malaysia are the top importers (ITTO 2012). Malaysia, Indonesia and China are the world’s largest exporters of plywood, while Japan accounts for nearly half of global imports (ITTO 2012).

Bilateral trade statistics suggest that integration in the wood-based products sector is growing rapidly at the regional level. For example, from 1996 to 2011 the total share of wood and wood articles and wood charcoal exported from countries in the Pacific to China leapt from 0.6% to 35%; for wood pulp, fibrous cellulosic material, wood waste, etc., from 2.2% to 38.7%; and for paper and paperboard, and articles of pulp, paper and board, from 1.7% to 7.4% (Figure 5.1). A similar upward trend can be seen for Vietnamese exports of the same commodities to the ASEAN+3² countries, which grew from an average of 43% in 2001 to an average of 72% in 2010 (Figure 5.2).



Source: UN COMTRADE database.

Figure 5.1 Share of selected wood-based product exports from Pacific islands imported by China, 1996–2011

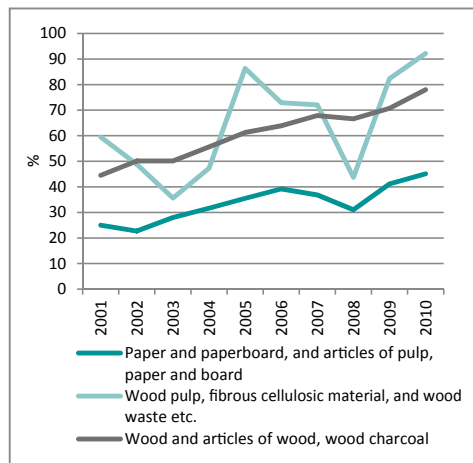
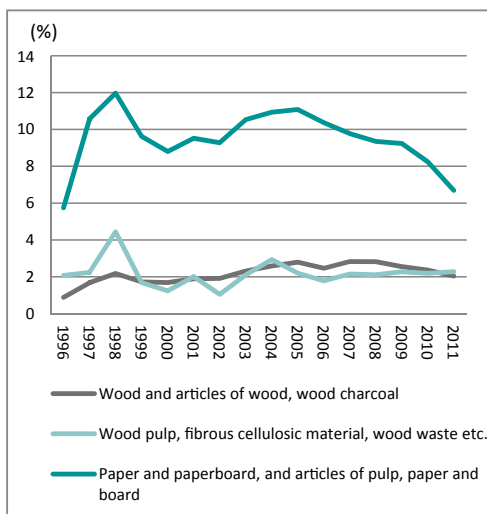
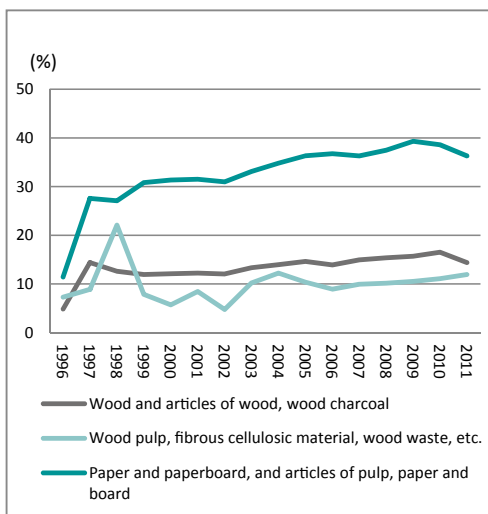


Figure 5.2 Share of selected Vietnamese wood-based product exports imported by ASEAN+3, 1996–2011

Intraregional trade intensity and trade share provide a more precise picture of the degree of economic integration.³ In 2011, the ASEAN intraregional trade intensity for wood and articles of wood and wood charcoal was 2.0, for wood pulp, fibrous cellulosic material, wood waste, 2.3, and for paper and paperboard, and articles of pulp, paper and board, 6.7 (Figure 5.3). As a score of more than 1 indicates that the trade flow within the region is larger than expected given the importance of the region in world trade (RIKS 2008), these figures indicate a high level of integration within ASEAN. However, progress on integration in the sector has not been steady. Both intraregional trade intensity and trade share for selected wood product categories increased rapidly up to 1997/1998, dropped suddenly after the Asian financial shock and for some products declined after the global financial crisis of 2007-2008 (Figure 5.3, 5.4).



Source: Asia Regional Integration Center (ARIC) database (<http://aric.adb.org/integrationindicators#>, accessed 11 March 2014).

Figure 5.3 *Intraregional ASEAN trade intensity for selected wood-based products, 1996–2011*

Figure 5.4 *Intraregional ASEAN trade share for selected wood-based products, 1996–2011*

2.2 Intraregional investment

Statistics and examples reported by various sources suggest that foreign direct investment (FDI)⁴ in the wood-based products sector is significant for some Asia-Pacific countries and may be increasing.⁵ In the case of natural forest management, perhaps the largest control of concessions by foreign investors can be seen in PNG, where Malaysian companies hold about 80% of the timber permits (Scheyvens and Lopez-Casero 2013). Chinese investment in logging natural forests in Myanmar is also thought to be considerable (USITC 2010).⁶ In some parts of the region, FDI in intensively-managed timber plantations is also significant and may grow further as supplies of timber from natural forests decline. Japan is reported to be the largest source of FDI for plantations, with joint investments underway in Thailand, Viet Nam and Indonesia (USITC 2010). Chinese state-owned enterprises (national, provincial and municipal) are another significant source of FDI for forestry.⁷ China’s Ministry of Commerce overseas investment approval records show that Chinese investments in forestry and land use in Asia have mainly been directed at Lao PDR, where rubber plantations have

been targeted to provide rubber for China's growing vehicle industry (Brack 2014). Xiufang and Canby (2011) list five Chinese paper companies with plantation expansion plans in Lao PDR in 2010, indicating that a growing need for paper pulp is also driving Chinese FDI.

FDI can be especially large when countries share a land border. For example, the Vietnamese military, other private firms and a Vietnamese labour force are heavily involved in the logging, timber processing and wood export sectors in Lao PDR (Forest Trends 2010). Logs are either processed in the country by wood processing plants run by Vietnamese managers and staffed by Vietnamese labour, or directly shipped to Viet Nam (Forest Trends 2010). Yanfang (2008) reports that Chinese companies have also invested heavily in timber harvesting and wood processing in Russia, and are involved as intermediaries in the commercial log depots and control the wholesale timber market in some parts of the country. This investment has been promoted by both the Russian and Chinese governments through a series of supportive statements and programmes (Brack 2014).

3. What factors affect the degree of economic integration?

The previous section indicates that economic integration in the region's wood-based products sector in terms of trade, FDI and in some places also labour force, is already high but also that the level of integration can fluctuate significantly over time. Clearly, the degree of *substantial integration* is influenced by more than just *formal integration* arrangements. A study by the US International Trade Commission found that integration of the hardwood plywood and flooring sectors amongst ASEAN members is affected mostly by (i) supply of raw materials, including supply of materials that are verified as legal or certified as sustainable; (ii) competition within the region, especially with the emergence of China as a major competitor, and (iii) product standards required to sell into industrialised country markets (USITC 2010). Looking beyond hardwood plywood and flooring, the factors that influence integration in the region's wood-based product sector can be categorised as follows:

3.1 National differences in factor endowments

There are large differences in amounts of land, labour, resources and entrepreneurship (or "national factor endowments") that encourage integration in the wood-based products sector. The region can be split up into countries that act as raw material suppliers and those that process or transform them. The suppliers are those countries with rich natural forest assets that lack the means to process these onshore, due partly to high costs and poor infrastructure. This group includes PNG, Solomon Islands, Lao PDR, Cambodia, Russia and Myanmar; the Malaysian state of Sarawak can be considered a supplier of raw materials for Sabah, another Malaysian state. These countries supply timber to international markets as well as a second group of countries, the "transformers", that process the wood materials into value-added products for export. The main transformer countries are China, Viet Nam and Thailand. Another group of countries – Indonesia and Malaysia – have large, though shrinking natural forest estates, and large wood processing sectors that were developed through attractive government loans and subsidies (Barr 2001). This third group is important for the region as suppliers of value-added wood materials to major regional consumer markets, such as Japan.

The above grouping of countries is somewhat simplistic as it uses a static characterisation that does not capture how national factor endowments can change over time as countries develop. Nevertheless, it conveys the basic message that national factor endowments are a major driver for integration in the region.

3.2 Growth in regional and domestic markets

Regional markets for wood materials are growing as economies expand and this drives integration, but can also have complex outcomes. In parts of the Asia-Pacific region, domestic demand for housing as well as for furniture and other SPWPs has been growing because of rising income levels, population growth and urbanisation, which helps explain why some of the world's largest trade flows in wood products and materials are now found within the region. Experiences in India and China both illustrate this point. A boom in construction in India, which the Government encouraged with loan subsidies and taxation incentives to the building industry, led to an increase in log and plywood imports (ITTO 2012). In China, urbanisation and rising income levels have increased the imports of wood for joinery and furniture (ITTO 2012) as well as paper and paperboard for writing paper, magazines, photocopying, cardboard boxes, paper bags and toilet paper (Xiufang and Canby 2011).

The growth of regional markets does not always mean greater integration, however. For example, growth of the construction and the domestic furniture industries in Indonesia led to a significant drop in its tropical plywood exports (ITTO 2012), though this is also likely associated with the rise of China as a competitor in the plywood export trade. The experience in Malaysia was similar, with a buoyant housing and construction sector causing some log and sawnwood exporters to turn their attention to the domestic market (ITTO 2012). The relative rate of growth of economies in the region is also important. This is evident from the fact that tropical plywood buyers in Japan, once the world's largest wood importer, have found themselves having trouble competing with the rapidly growing market for tropical plywood in India.

3.3 Legality assurance

Some major timber markets and buyers now require assurance from their suppliers that wood materials were legally harvested. The US, EU and Australia have enacted legislation that prohibit the trading of illegally harvested timber, while Japan, the Netherlands, Germany, Denmark, the UK, France, Spain, Belgium, Norway and New Zealand have all introduced policies to avoid the use of illegal timber in public procurement, and some major companies involved in the wood products trade have introduced procurement policies to keep illegal wood out of their supply chains. These initiatives on timber legality have important implications for integration as the main countries supplying tropical logs to the region's processing hubs have problems with legal compliance in their forestry sectors (Blaser 2010). The outcomes could include shifts in supply chains as well as diversion of regional wood product exports from the EU, US and Australian markets to the less discerning regional markets.

3.4 Dwindling timber supplies from natural forests

The region has been highly competitive in the international wood-based product markets sector because its extensive tracts of tropical forests have provided a source of abundant, cheap and highly regarded wood products with desirable technical attributes and aesthetic qualities. However, supplies of high quality, large diameter tropical logs in the major producer countries are dwindling, due to over-harvesting of natural forests, land conversion and, in some countries, progress in the enforcement of laws and regulations that limit timber harvests to sustainable levels (ITTO 2012). This impacts integration in complex ways, as some cross-border value-added product chains that use wood from natural forests may disappear, while cross-border investment in timber plantations is likely to increase.

3.5 Logging and log export bans

China, Viet Nam, and Thailand have introduced natural forest logging bans, while Indonesia, Fiji, Thailand, the Philippines, Lao PDR, Cambodia, Viet Nam, Myanmar and Peninsular Malaysia have introduced log export bans. The aims of these bans are to protect remaining natural forest estates and/or to promote domestic processing industries. The impacts of the bans on integration can be complex. While a log export ban means that a country can no longer export logs to other countries, suggesting that integration would decline, some countries with log export bans have become major timber importers and processors, particularly China, Viet Nam and Thailand, suggesting that in some cases the bans may have increased integration.

4. Are formal economic integration processes likely to have any impact on the region's remaining natural forests?

Given that there is already a high degree of substantial economic integration in the wood-based products sector, the apparent slowdown in the pace of integration after the Asian financial crisis, and the array of factors that influence integration in complex ways, there may be some doubt as to whether further development of formal economic integration arrangements will have any implications for the region's remaining natural forests. The discussion below takes up this issue, reflecting on a variety of measures and instruments that are being promoted through various economic integration processes.

4.1 Tariff reduction/elimination

Developing countries in the Asia-Pacific region have committed themselves to significant tariff reductions and elimination through regional processes such as ASEAN. In common with many of its other priority integration sector roadmaps, the ASEAN Roadmap for Integration of Wood-Based Products Sector targets tariff elimination, removal of barriers to investment and improved trade facilitation (USITC 2010). Tariffs on hardwood plywood and flooring amongst ASEAN members have historically been as high as 40% (USITC 2010), but as of 1 January 2010 intra-ASEAN tariffs on wood-based products were mostly zero or less than 5% (ASEAN Secretariat). ASEAN has concluded free trade agreements (FTAs) with a number of countries in the region that are either important as wood product exporters, importers or both, including China, Japan, Republic of Korea, Australia-New Zealand, and India, and these FTAs will further reduce the average tariff on wood-based products in the region.

Further tariff reduction could have some impact on the regional trade in wood-based products. A US International Trade Commission study foresees tariff elimination leading to greater regional industry integration in the hardwood plywood and flooring sector by reducing the costs of combining wood materials from different countries in a finished product (USITC 2010). The International Tropical Timber Organisation also expects that tariff reductions under the ASEAN-China Free Trade Agreement (ACFTA) will impact trade by increasing the competitiveness of Chinese wooden furniture in ASEAN markets (ITTO 2012).

Tariff reductions on "forest-risk" agricultural commodities, i.e., commodities whose production is often associated with forest conversion, could also have implications for the region's forests. An obvious example is palm oil, which is widely associated with deforestation in Indonesia and Malaysia, and has become a major threat to forests in PNG. The regional trade in palm oil has been growing rapidly and this trend is set to

continue as regional economic integration progresses. With the launching of the ASEAN-China Free Trade Area, China reduced its import tariff on palm oil from 30% to 9%, leading to a 27% growth in Malaysian oil palm product exports to China between 2008 and 2013 (People's Daily Online, 13 Jan. 2010).

4.2 Removal of non-tariff trade barriers

Measures that can act as non-tariff trade barriers (NTBs) for wood-based products take various forms and can have a considerable impact on international trade (FAO 2005). These include export restraints such as total log export bans, export quotas, or selective bans based on species; phytosanitary regulations; specific aspects of building codes; procurement policies favouring legal and sustainable timber; and laws prohibiting the trade in illegally harvested timber. Governments may resort to NTBs to protect their domestic industries from international competition, but it can be difficult to know when this is their intention (FAO 2005).

How economic integration processes might impact NTBs is unclear. Some integration processes include agreements to work towards eliminating NTBs, e.g., the Interim Technical Working Group on Common Effective Preferential Tariff for the ASEAN Free Trade Area is working on NTB elimination, but governments that have committed to tariff reductions may still look to NTBs to protect their industries from international competition.

4.3 Trade facilitation

As a result of economic integration processes, the role of customs authorities is moving away from that of a "gatekeeper" towards trade facilitation and security (Gordhan 2007). These transformations are apparent in ASEAN trade facilitation measures, such as streamlining procedures at ports of entry and harmonising documentation requirements, and in the development of national and ASEAN single windows, i.e., the concept that traders only have to deal with one government agency which then passes on information to other government agencies (USITC 2010). The precise extent to which these types of trade facilitation measures are likely to impact the trade in wood-based products is unclear, but based on interviews with industry representatives USITC (2010) concluded that ASEAN trade facilitation processes have benefited the trade in hardwood plywood and flooring in the region through the reduction of transaction processes and costs. The same study found that border crossing in the Greater Mekong Subregion, which is slowed by permits and fees as well as the practice of off-loading trucked goods at the border crossing and reloading them on to a different vehicle for the remainder of the journey, is becoming smoother. This may reflect progress in implementing the Cross Border Transit Agreement signed in 1998 by Viet Nam, Lao PDR, and Thailand and later joined by Cambodia, Burma, and China (ADB 2011; USITC 2010).

4.4 Investment liberalisation and financial sector integration

Investment liberalisation

There is thus already considerable intra-regional investment in various sectors that poses a threat to forests. Nevertheless, if regional integration removes the remaining barriers to investment, still greater investments in activities associated with forest destruction could eventuate. These barriers include the prohibition of outright land ownership by foreigners, non-access to national treatment for foreign investors, and the restriction of investment in concessions to joint ventures with local majority ownership (USITC 2010).

ASEAN has been working on the removal of investment barriers through the ASEAN Comprehensive Investment Agreement (ACIA), signed in February 2009 and slated to enter into force after ratification by all ASEAN members. ACIA facilitates investment by providing new investor protections, clear timelines for investment liberalisation and benefits to foreign-owned, ASEAN-based investors. The ASEAN-China Investment Agreement, which has provisions on fair and equitable treatment to investors, non-discriminatory treatment on nationalisation or expropriation, and compensation for losses, also aims to reduce investment barriers (Soerakoesoemah 2012).

Financial sector integration

The Asian Development Bank Regional Integration Monitor foresees continued efforts to integrate banking through regional arrangements and initiatives such as the ASEAN Economic Community and free trade agreements (ADB 2014). Financial integration processes include the ASEAN Banking Framework, which aims to enable ASEAN banks to enter and operate in banking markets within member states, and to eliminate discrimination against foreign banks. While the cross-border flow of financial instruments is relatively small, it is increasing, especially credit flows from Japanese and Australian banks (ADB 2014). Further analysis is required to understand whether these increases are likely to have any implications for the region's natural forests.

5. How to conserve the region's remaining natural forests in the context of regional economic integration

The overall impression gained from the review of regional economic integration processes and instruments presented above is that formal integration arrangements could pose further threats to the region's remaining natural forests. Given that these forests provide important ecosystem services to the region and globally, and hold significant value for future generations, the region's leaders promoting economic integration have a responsibility to ensure this outcome doesn't become a reality. The options available to them include a "hard" policy approach involving building environmental commitments into integration instruments, or a "soft" approach built around regional co-operation and support for actions by national governments, or a combination of the two.

In the region there is little political appetite for the first option, with leaders having steered regional agreements away from binding commitments and controls on environmental issues, instead preferring to agree to co-operate on them. The ASEAN-China Free Trade Area (ACFTA) and the Trans-Pacific Partnership Agreement (TPP) are cases in point. In analysing the background to ACFTA, Gao (2012, 118) concludes "for China, an FTA is about trade and trade only. China did not force ASEAN to accept side deals on non-trade issues". Abidin and Aziz (2012, 57) explain that ACFTA started with "low-common denominators among the 11 nations". At first glance, the TPP, currently being negotiated by 12 countries,⁸ appears to have taken a stronger approach on environmental issues, as it has an Environment Paper. The Environment Paper, dated 24 November 2013, mentions illegal logging and other key environmental issues for the region, including biodiversity, indigenous knowledge and resources, over-fishing and climate change. However, these environmental elements were mostly pushed by the US (though there are exceptions with, for example, Peru and Mexico pushing for further text on the rights of indigenous peoples) and other countries have been reluctant to accept them because of commercial and political interests (Kelsey 2014). As a consequence, the environmental elements are weak and unenforceable. In terms of combatting illegal logging, they are limited to exchanging information and experiences (TPP 2013).

Given that the political context of the region seems to prefer a low denominator approach on non-economic issues when integration agreements are being signed, how is it possible to ensure that economic integration does no net environmental harm? Making full use of existing initiatives and building on shared agendas may offer the best prospects for achieving sustainable forest management in this context. While economic integration focuses on trade and investment liberalisation, the major economic integration processes in the region do have formal environmental agendas and have established various forums and bodies – meetings, taskforces, expert groups, etc. – to promote these agendas. For example, ASEAN has set up several forums to promote the sustainable management of forest resources. The ASEAN Ministerial Meeting on Agriculture and Forestry (AMAF) promotes collaboration between member countries on food, agriculture and forestry. The objectives of AMAF include not only increasing intra-regional trade in agricultural and forestry products, but also promoting regional collaboration for the management and conservation of natural resources for sustainable development. The ASEAN Senior Officials on Forestry (ASOF) acts under AMAF, focusing specifically on promoting regional cooperation in the forestry sector. It has established several expert and working groups, including the ASEAN Working Group on a Pan-ASEAN Timber Certification Initiative and the ASEAN Wildlife Enforcement Network (ASEAN-WEN).

APEC initiatives relevant to the environment include the Anti-Corruption and Transparency Experts' Task Force, which was established in 2005 and upgraded to a working group (the Anti-Corruption and Transparency Experts' Working Group, ACTWG) in 2011. The main aim of the ACTWG is to fight corruption and promote transparency, both of which are serious issues for forestry in the region. The ACTWG included illegal logging as a priority issue in its medium term work plan.

The APEC Expert Group on Illegal Logging and Associated Trade (EGILAT) is another APEC initiative. EGILAT was established by the APEC Ministers Responsible for Trade in 2011, the same year in which the APEC Leaders' Declaration included a commitment to take actions to stop the trade in illegally harvested timber and to combat illegal logging. EGILAT's work plan for 2014 included two meetings to discuss the sharing of information on capacity building, and strengthening the capacity of member countries to address illegal logging and associated trade; developing an understanding of how legality is defined by countries; and planning for other activities, such as via a workshop on legality assurance systems.

Several measures that would reduce the potential harm of regional economic integration to forests and that could be promoted through APEC's and ASEAN's environmental agendas, as well as through other relevant initiatives in the region, are discussed below.

5.1 Collaboration to tackle the trade in illegally harvested timber

Collaboration to stop the trade in illegally harvested timber is one area that could benefit significantly from greater and more systematic regional cooperation, as it has proven difficult for countries acting alone to stop the movement of illegally harvested timber across their borders. Areas in the region known as "hotspots" for the cross-border movement of illegally harvested timber include parts of the national borders of countries in the Greater Mekong Subregion, i.e., Cambodia, China, Lao PDR, Myanmar, Thailand, and Viet Nam, the border between Sawarak (Malaysia) and Kalimantan (Indonesia), and between China and the Russia Far East.

Regional enforcement drives

There are in fact some examples of regional collaboration on enforcement that are relevant to the trade in illegally harvested timber. These have focused on combating the trade in illegal wildlife, but have included tree species listed in appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Two such one month operations, code named “Operation Cobra” and Operation Cobra II,” were conducted in early 2013. The operations resulted in over 400 arrests and more than 350 major wildlife seizures, including seizures of more than 200 metric tonnes of rosewood logs and 42 metric tonnes of red sanders wood (LATF 2014, CITES Management Authority of China 2014).

The successes of these two operations highlight the importance of multi-agency and regional collaboration. The operations were overseen by an International Coordination Team (ICT) chaired by the China National Interagency CITES Enforcement Coordination Group and, in the case of Cobra II, also the Lusaka Agreement Task Force (LATF). The ICTs included investigators from participating countries from Africa, Asia and the US, who were joined by staff from the World Customs Organisation, CITES, INTERPOL, LATF, the ASEAN Wildlife Enforcement Network, and the South Asia Wildlife Enforcement Network.

The organisation and implementation of these types of enforcement operations deserve further study to understand how they can be conducted most effectively, including whether additional regional and national bodies should be involved. If these operations are infrequent events and limited to CITES-listed species, they are unlikely to have a significant and lasting effect on the cross-border movement of illegally harvested timber. If, however, they were conducted on a regular basis and in an integrated manner to strengthen existing national enforcement capacities and activities, and if their scope was expanded to cover all tree species, they could potentially make an important contribution to responsible timber trade in the region.

Customs collaboration to combat the trade in illegally harvested timber

Customs collaboration is essential to any regional initiative on enforcement of trade-related matters. An IGES study found that customs law is often violated when illegally harvested timber is transported across borders, meaning that customs authorities have a mandate to act on the trade in illegally harvested timber (Scheyvens and Lopez-Casero 2010). However, it can be difficult for customs agencies acting alone to thoroughly investigate the movement of suspect timber. The World Customs Organisation (WCO) recognises the importance of collaboration between customs agencies in dealing with infractions and provides protocols in its Johannesburg Convention for mutual administrative assistance and information sharing. The WCO also drafted a model bilateral agreement to guide its member countries in drafting bilateral agreements on mutual administrative assistance.

The IGES study examined various types of agreements between customs agencies, which include legally binding customs mutual administrative assistance agreements (CMAAs) and non-legally binding memoranda of understanding, and other similar cooperative arrangements, from the perspective of whether they would be useful to combat the trade in illegally harvested timber. The study concluded that while these agreements are general in nature and thus do not specify illegal logging or any other issue as a problem, they do provide important protocols for useful sharing of information on spontaneous and request bases. As CMAAs, MoUs and other agreements for collaboration already exist between countries in the region, a stocktaking of these and analysis of how they might be used to increase collaboration on suspect timber movement would be useful.

Another way of moving the idea of greater customs collaboration to combat the trade in illegally harvested timber forward would be to develop a support programme for the neighbouring countries of Viet Nam, Cambodia, Lao PDR, and Thailand. Action is needed to reduce the trade in illegal timber between these countries, and the commonalities they share could pave the way for some form of sub-regional programme. Customs-to-customs MoUs already exist amongst the four countries and such relationships can be built upon.

Regional processes and platforms could also be targeted for regular meetings between customs, forestry and other relevant departments. ASOF might be an appropriate venue, given that in 2007 it made a statement on the importance of customs collaboration to combat the trade in illegally harvested timber. ASEAN's Customs Procedures and Trade Facilitation Working Group, which was designed to take up any issues relating to customs integration, could also be approached to take up this idea. APEC's EGILAT could also be lobbied, as its work plan for 2014 included the option of approaching the APEC Sub-Committee on Customs Procedures (SCCP) to hold a joint meeting on issues facing customs procedures for forest products.

Specific measures that could be supported through existing platforms and processes include:

Making better use of RILO A/P: The WCO established the Regional Intelligence Liaison Office for Asia and the Pacific (RILO A/P) as its focal point of intelligence analysis and liaison of enforcement cooperation with member administrations in the Asia and the Pacific region. RILO A/P provides a platform for member administrations to identify critical areas that require attention in the region, which can include environmental issues in-so-far as they are relevant to customs agencies. WCO member countries could be encouraged to officially request that control of illegal trade in timber and other forest products be incorporated as a priority element of the RILO A/P work programme.

Expanding the function of CEN: The WCO collects data and information for intelligence purposes through its global enforcement information and intelligence tool, the Customs Enforcement Network (CEN). CEN manages a 'seizures and offences' online database that stores intelligence submitted voluntarily by member customs administrations, including on CITES-listed tree species, so has some relevance to forest resources. Using CEN, member customs administrations are able to check high risk carriers, routes, *modus operandi* and other information relevant to their enforcement work. Member countries could request illegal wood to be included as a separate category of the CEN seizures database; seizure information is reported under 13 categories, but illegal wood is not one of these. All member countries could be encouraged to submit information on illegal timber trade (seizures and infractions) to RILO A/P, which would then be entered into the database.

Customs agreements on use of export declarations to reduce timber smuggling: Stamped export declarations provide some indication of product legality and have greater enforcement consequences than commercial and shipping documents. Thus, timber smuggling might be reduced by having export declarations sent in advance of shipments (prior notification) to customs in the importing country. This would require an agreement between the exporting and importing countries on the use of export declarations as a check on timber legality. This idea could be piloted by two or more countries, with support from RILO A/P and relevant ASEAN and APEC bodies.

5.2 Promoting responsible trade

National timber legality assurance systems

National timber legality verification systems are being developed by several countries in the region to provide assurance that all their wood-based products are fully legal. These initiatives have been spurred by the EU Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, which was launched in 2003. The FLEGT Action Plan sets out a range of measures to increase the capacity of producer countries to control illegal logging while reducing the trade in illegal timber products between these countries and the EU. These measures include the development of legality standards through a participatory multi-stakeholder process and establishment of a timber legality assurance and licensing scheme within individual producer countries. The principle instruments to implement the Action Plan are Voluntary Partnership Agreements (VPAs), which are legally binding bilateral commitments to trade only in timber that has been verified as produced in compliance with a mutually recognised national standard of legality.

The greatest progress in the development of a national timber legality assurance scheme can be seen in Indonesia, which signed a VPA with the EU in February 2014. Indonesia's national Timber Legality Assurance System (TLAS; in Indonesian *Sistem Verifikasi Legalitas Kayu*, SVLK) was established under two regulations in 2009. The regulations provide national definitions of legal timber and sustainable forest management, with detailed principles, criteria, indicators and verifiers covering aspects of forest production and processing. Verification guidelines setting out the methods and appraisal norms to be used are also specified. The government has made SVLK certification compulsory for all timber producers, traders, processors and exporters, and several bodies have been accredited by the Indonesian National Accreditation Committee (KAN) as SVLK certifiers.

While Indonesia is the only country in the region to have signed a VPA with the EU, Malaysia, Viet Nam, Lao PDR and Thailand are involved in formal negotiations on VPAs with the EU, and Cambodia and Myanmar have expressed interest in them (FERN 2014). Interest in the development of national timber legality assurance systems can also be found outside of programmes under the EU FLEGT Action Plan. For example, both the State Forestry Administration (SFA) of China and the PNG Forestry Authority (PNGFA) are developing such systems. The concept behind the China Timber Legality Verification System (CTLVS) is for SFA to act as an accreditation body that certifies other bodies to issue licenses for timber in producer countries that meets the CTLVS standard (Scheyvens and Lopez-Casero 2013). The PNGFA is developing its Timber Legality Standard (TLS) as part of a package of outputs that consists of a 'wood products tracking and chain of custody verification system', a database to assist in the monitoring and reporting on the flow of timber products, a legality standard and an industry code of conduct for legal forestry activities (Scheyvens and Lopez-Casero 2013).

There is now enough experience with national timber legality assurance systems for a regional dialogue to extract lessons and discuss good practices for promoting this instrument. In its 2014 work plan APEC's EGILAT has the mandate to consider holding a workshop on national timber legality assurance systems, so could be an appropriate venue to initiate discussion. However, the promotion of a regional dialogue on this topic would require careful planning to overcome possible tensions, while at the same time ensuring meaningful, output-oriented discussion. Tensions could arise as countries involved in the development of legality verification systems with the aim of agreeing on a VPA have exposed themselves to a lot of external scrutiny over agreed principles,⁹ while China and PNG have not been exposed to such scrutiny.

Voluntary certification

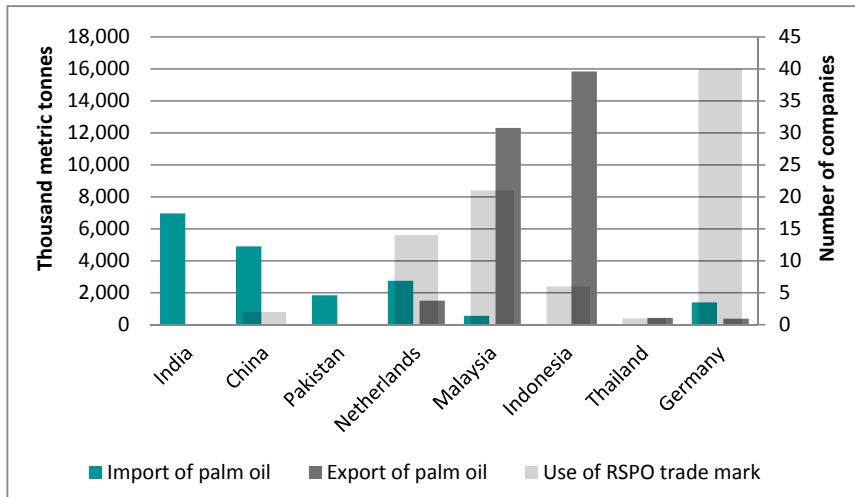
National timber legality assurance systems are mandatory systems. Environmental certification, on the other hand, is voluntary, but has the advantage of looking beyond what is required by law to consider the broader issue of sustainability. Both can contribute to responsible timber trade in the region.

Forest certification enables forest managers and wood product manufacturers to provide information to the market that helps consumers select products not associated with forest destruction. Some forest managers in the region have had their operations certified under either the global Forest Stewardship Council scheme or national schemes such as the Malaysia Timber Certification Scheme, the China Forest Certification Scheme and schemes run by the Indonesia Ecolabelling Institute (ITTO 2012, 2014). However, the total certified forest area in countries and areas where forest governance is weak remains very low. This also applies to environmental certification of forest-risk agricultural products. Some progress has been made in the certification of palm oil (RSPO 2012), but less progress is evident for sugarcane, rubber and cassava.

Several major barriers need to be overcome for environmental certification to be anything more than marginal in terms of the total volumes of products traded. These include the high costs for producers of acquiring certification and the fact that certification does not give the producer much, if any, market advantage in the region. Issues thus need to be overcome on both the supply and demand sides.

On the supply side, the costs of certification are high for a combination of reasons. In the case of wood certification, forest management practices are often well below the certification standards due to weak enforcement of forest regulations, which makes achieving compliance with the standards a lengthy and costly process. Moreover, in tropical developing countries forest managers often have to work through disputes with local communities, which commonly arise because of lack of government attention to local land and resource claims when allocating forest rights. The complexities of planning, managing and monitoring forestry operations in biodiversity-rich tropical forests also add to certification costs.

On the demand side, certification is constrained by lack of buyer interest in environmental labels and willingness to pay a premium for certified products. For example, despite the Japanese government having developed its "Goho-wood"¹⁰ system to promote the use of verified-legal wood, and despite the government stating that illegally harvested wood will not be used in public procurement, there is little willingness of Japanese buyers to pay a premium for certified timber (Lopez-Casero and Scheyvens 2007). The greatest demand for certified wood is in fact from outside the region, and this is also true for certified forest-risk agricultural products.¹¹ Figure 5.5 shows that while Asia-Pacific countries are among the largest global traders and consumers of palm oil, there is much less interest in the region than in Europe in providing assurance that palm oil is environmentally sustainable.



Source: UN COMTRADE database; RSPO (2014).

Figure 5.5 Top 5 importers and exporters of palm oil compared with use of the Roundtable on Sustainable Palm Oil (RSPO)¹² trade mark (2013)

There are at least three ways in which regional integration processes could contribute to promoting voluntary environmental product certification as part of their environmental agendas. First, they could encourage the development of product standards for all major forest-risk products and the strengthening of existing standards; for example, some shortcomings have been identified in the RSPO standard and its application (Greenpeace International 2013). Second, they could encourage periodic reviews of forest laws and more effective national enforcement of forest regulations, which would raise the level of forest management performance and thus reduce the challenge forest managers face in complying with certification standards.¹³ Third, they can encourage the development of responsible regional markets through private and public sector procurement policies for legal and sustainable timber.

Green building rating systems

Green building rating systems could be part of the way forward towards more responsible intra-regional trade in wood-based products.¹⁴ Green building rating systems “score” buildings by allocating points for optional building features that support green design, such as the use of sustainable and recycled materials. Some provide points specifically for the use of certified timber. For example, the Hong Kong Building Environmental Assessment Method (HKBEAM) and Malaysia’s Green Building Index both give credit for demonstrating that at least 50% of all timber and composite timber products used in the project are certified (Cheng and Clue 2010).

Over 30,000 buildings in the region are now enrolled under green rating systems (Lowry 2011), but a number of hurdles are obstructing further progress. In Thailand, high construction costs, lack of regulation consistency, low electricity prices, lack of technical skill, focus of property developers on short-term costs rather than long-term benefits, the fact that domestic companies tend to work with local suppliers that do not handle green materials, and limited awareness of economic and health benefits are all constraining the sector (Solidiance 2013). In Malaysia, lack of awareness, education and information on benefits have been identified as major hurdles to green buildings (Esa et al. 2011).

Regional collaboration to promote green building is already underway. The US has led initiatives on green building in APEC and ASEAN with the objective of minimising obstacles to trade. The APEC Subcommittee on Standards and Compliance (SCSC) is promoting green building, reflecting a commitment by APEC leaders to pursue common objectives to prevent technical barriers to trade related to emerging green technologies. The SCSC took up the issue of green buildings as one of its largest projects in 2011, undertaking a survey on sustainability in building construction, two workshops and two case studies on the trade impacts of life cycle assessments and of green rating systems. This project represented the first example of joint APEC-ASEAN collaboration and is continuing under a multi-year project on green building that runs through to the end of 2015. This will include studies on green building codes and whether APEC and ASEAN activities have facilitated trade in green building materials. These efforts should be intensified and linked with other initiatives within and outside APEC and ASEAN to promote the trade in responsible timber, especially with a view to engaging with India, China and other countries experiencing construction booms.

5.3 Responsible investment and banking

In promoting financial sector integration, ASEAN's focus has strictly been on economic and financial issues, e.g., how liberalisation can be tailored to reflect different levels of financial sector development in the member countries, and on the safeguards necessary to avoid macroeconomic instability and systemic risk that could arise from the liberalisation process (ADB 2013b, 6). There appears to be little discussion on the environmental responsibilities of banks and investors, yet this is an issue that has raised a lot of concern in forestry and land development in the region. In 2013, Norway's sovereign wealth fund accused 23 Asian palm oil companies of causing deforestation and ceased financing them (Dagenborg and Doyle 2013).

There is some development in investment standards taking place in the region that could provide material for a regional dialogue on this issue. These include efforts by the Government of China under the policy slogan "government guidance, enterprise decision-making" to encourage responsible conduct by Chinese businesses abroad, due to backlash against Chinese FDI in some countries (Brack 2014). Guidelines on compliance with domestic laws, regulations, international conventions and agreements signed by China and the host country, and on managing environmental risks in project financing have been produced.¹⁵ However, Brack (2014) concludes that these guidelines have so far had little impact on the environmental performance of Chinese enterprises operating in the forestry sector of other countries, mainly due to their voluntary nature and lack of monitoring.

A regional initiative to take up the issue of promoting responsible banking and investment in forestry, forest-risk agriculture and megaprojects commonly associated with deforestation is long overdue. Issues that need to be examined closely are: (i) To what extent are foreign direct investment and domestic investment respectively associated with developments that drive forest destruction? (ii) What progress has been made with the development of controls on banking and investment for projects impacting forests in the region? (iii) What mandatory and voluntary approaches represent good practice and how can these be promoted? On this last issue, safeguards can be found in multi-national lending, sovereign investment funds, and private sector lending that could be reviewed. The relevance and uptake of international initiatives such as the Equator Principles (the most widely recognised sustainable banking principles) (Saunders 2005) in the region also deserve study.

6. Conclusion

There is already a high degree of economic integration in the wood-based products sector in the Asia-Pacific region when measured in terms of intraregional trade and investment. National factor endowments and growing regional markets for wood-based products are among the reasons behind this. Nevertheless, this review has found that further removal of barriers to trade and investment in the forest sector could increase pressure on forest land and resources and accelerate deforestation and forest degradation, especially in countries where forest governance is weak. This may also apply to integration in other sectors that are associated with forest conversion in the region, such as agriculture, mining and hydropower generation.

Economic integration processes such as ASEAN and APEC do have environmental agendas and better use can be made of these to minimise the potential harm of integration to the region's remaining natural forests. This paper recommends the following measures to the various bodies established by ASEAN and APEC to promote their environmental agendas, as well as other organisations working on trade, investment and banking issues relevant to the forestry sector:

- Engage forestry, customs and other relevant agencies in regional enforcement drivers to combat the cross-border movement of illegally harvested timber as a regular activity, with a view to strengthening enforcement capacities in the participating countries;
- Request the Regional Intelligence Liaison Office for Asia and the Pacific to include the trade in illegally harvested timber in its work programme, and the World Customs Network to expand its Customs Enforcement Network database to include illegally harvested timber;
- Pilot the idea of agreements between countries to use export declarations as a prior notification of timber shipments to reduce timber smuggling;
- Organise a regional dialogue on national timber legality assurance systems, with a view to supporting the development of such systems in the region;
- Promote environmental certification of forest and forest-risk agricultural products through standards development, support for forest law review and enforcement in countries where forest governance is weak, and public and private procurement policies;
- Promote the development and application of green building codes that encourage the use of certified timber;
- Launch a regional initiative to take up the issue of responsible banking and investment in forestry, forest-risk agriculture, and megaprojects commonly associated with deforestation.

In addition to these recommendations, this review points to areas where further research is desirable. While this paper mostly focused on the implications that integration in the wood-based products sector has for forests, extending this study to include integration in all sectors with implications for forest land and resources would be useful. There is also a need for deeper study of emerging and expanding markets for wood-based and forest-risk agricultural products in the region, given that some of these markets are now the

world's largest. Another important issue for research is how some companies in Asia have evolved from small logging operations to multinational corporations with multi-sector interests as well as investments in forestry outside the region, and the implications of this.

Notes

1. The categories of tropical SPWP are wooden furniture and parts; builders' woodwork (joinery and carpentry); other SPWP (packing, wooden boxes, etc.); casks, barrels, vats and other cooper's products; picture frames; table/kitchenware and other articles for domestic/decorative use; and tools, handles, brooms and other manufactured products and mouldings (ITTO 2012).
2. ASEAN member countries plus China, Japan and Korea.
3. The regional trade share is the proportion of total trade by a region that is accounted for by trade within the region, while the intraregional trade intensity is the ratio of intraregional trade share to the share of world trade with the region. Intraregional trade intensity provides an indication of whether trade within a region is greater or smaller than would be expected from the region's importance in world trade.
4. Inbound investment is calculated by measuring foreign direct investment (FDI), which indicates a long-term interest in a foreign enterprise, as opposed to portfolio investment where funds can be withdrawn quickly (USITC 2010).
5. Compared to trade statistics, data on intraregional investment in the timber industry are more difficult to come by. ASEAN countries, for example, do not report FDI statistics at the level of specific industries (USITC 2010).
6. Myanmar's recent initiatives to court foreign investors include joint ventures with firms from Thailand, Hong Kong, India and Singapore to produce advanced wood products in the country, following a recent ban on export of whole logs (THIHA 2013).
7. Brack (2014, 1) notes that by 2012 China had become the world's third largest source of FDI (second, if Hong Kong is included), with FDI flows climbing steadily from about USD 2.5 billion in 2002 to USD 84 billion in 2012 as a result of the adoption of the Going Global (or "Going Out") strategy in 2001 and the rapid accumulation of foreign exchange reserves. He explains that some of this investment has been directed at securing supplies of timber and wood products.
8. Australia, Brunei Darussalam, Chile, Canada, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Viet Nam.
9. Illustrating this point, when the European Parliament ratified the VPA with Indonesia, it issued a strongly-worded resolution on what it viewed as deficiencies in the VPA regarding timber from forests converted to other uses and financial corruption, as well as SLVK certification of timber for forests where rights are disputed by indigenous peoples and local communities (FERN 2014).
10. See <http://goho-wood.jp/world/>
11. In 2013, Unilever, which uses palm oil in soap and margarine, pledged to buy all its palm oil from "traceable sources" by 2014 and Wilmar International, which controls 45% of the global production of, and trade in, palm oil, pledged to only provide products that are free from links to deforestation (FT.com 2013).
12. The RSPO is a voluntary association of palm oil producers, traders, manufacturers and financiers. It certifies growers who commit to transparency, legal compliance, economic sustainability, and environmental and social responsibility. Its members are responsible for around 40% of global crude palm oil supply (RSPO 2012).
13. Based on requests from member countries, the International Tropical Timber Organisation has actually reviewed forest management performance at the national level and proposed options for improve legal compliance, but compliance problems remain. Providing resources to move forward with the recommendations of these studies should be a priority.
14. "Green building" generally refers to using processes that are environmentally responsible and resource-efficient throughout a building's lifecycle, while at the same time creating improved building conditions for human health (Howe 2010).
15. *A Guide on Sustainable Overseas Silviculture by Chinese Enterprise* produced by the State Forestry Administration and the Ministry of Commerce directs Chinese companies to ensure that logging is conducted according to the law and to avoid involvement in the destruction of high conservation value forest (Brack 2014). The *Guidelines for Environmental and Social Impact Assessments of the China Export and Import Bank's Loan Projects* require the assessment of social benefits and environmental demands to be considered alongside economic benefits in the assessment of loan projects. The *Environmental Assessment Framework* developed by the Exim Bank excludes financing of sub-projects involving "commercial logging operations for use in primary tropical moist forest" and "production or trade in wood or other forestry products other than from sustainably managed forests" (Brack 2014). The *Green Credit Guidelines* direct banks to develop environmental and social risk lending criteria and to require their clients to take mitigation actions when risks are considered high (Brack 2014).

References

- Abidin, M. Z., and Aziz, N. I. (2012) Malaysia. In K. E. Flick and K. M. Kemburi (Eds.), *ASEAN-China free trade area: Challenges, opportunities and the road ahead* (Vol. RSIS Monograph No. 22): S. Rajaratnam School of International Studies.
- ADB (2011) *Greater Mekong Subregion Cross-Border Transport Facilitation Agreement: Instruments and drafting history*. Mandaluyong City: Asian Development Bank.

- ADB (2013b) *The road to ASEAN financial integration: A combined study on assessing the financial landscape and formulating milestones for monetary and financial integration in ASEAN*. Manila: Asian Development Bank.
- ADB (2014) *Asian Economic Integration Monitor - November 2014*. Mandaluyong City, Philippines: ADB.
- ASEAN Secretariat (Undated) Trade and facilitation.
- Barr, C. (2001) *Banking on sustainability: Structural adjustment and forest reform in post-Soeharto Indonesia*. Bogor: Center for International Forestry Research.
- Blaser, J. (2010) *Forest law compliance and governance in tropical countries*. FAO and ITTO.
- Brack, D. (2014) *Chinese overseas investment in forestry and industries with high impact on forests: Official guidelines and credit policies for Chinese enterprises operating and investing abroad*. Washington DC: Forest Trends.
- Cheng, B., and Clue, S. L. (2010) *Forestry in Asia*. Singapore: Responsible Research.
- CITES Management Authority of China (2014) Asia, Africa and North America join hands cracking down wildlife crime syndicates [Press Release]
- Dagenborg, J., and Doyle, A. (2013, 08 March) Norway drops Asian palm oil firms in show of green credentials, Reuters. <http://www.reuters.com/article/2013/03/08/norway-forests-idUSL6N0C05AX20130308>
- Esa, M. R., Marhani, M. A., Yaman, R., Rashid, A. A. H. N. H. N., and Adnan, H. (2011) Obstacles in implementing green building projects in Malaysia. *Australian Journal of Basic and Applied Sciences*, 5(12): 1806-1812.
- FAO (2005) *State of the World's forests*. Rome: FAO.
- FAO (2010) *Global forest resources assessment - Main report*. Rome: Food and Agriculture Organisation.
- FERN (2014) *Forest Watch FLEGT Update June 2014*.
- Forest Trends (2010) *Timber markets and trade between Lao PDR and Viet Nam: A commodity chain analysis of Vietnamese driven timber flows*. Washington DC: Forest Trends.
- FT.com (2013) Wilmar bows to Southeast Asia deforestation concerns on palm oil.
- Gao, H. (2012) A love triangle: ASEAN, China and the TPP. In K. E. Flick and K. M. Kemburi (Eds.) *ASEAN-China free trade area: Challenges, opportunities and the road ahead* (Vol. RSIS Monograph No. 22): S. Rajaratnam School of International Studies.
- Gordhan, P. (2007) Customs in the 21st Century. *World Customs Journal*, 1(1): 49-54.
- Greenpeace International (2013) *Certifying destruction: Why consumer companies need to go beyond the RSPO to stop forest destruction*. Amsterdam: Greenpeace International.
- Howe, J. C. (2010) Overview of green buildings. In J. C. Howe and M. B. Gerrard (Eds.) *The law of green buildings: Regulatory and legal issues in design*. Chicago: American Bar Association / Eli Press.
- ITTO (2012) *Annual review of the World timber situation 2012*. Yokohama: ITTO.
- ITTO (2014) *Tropical Timber Market Report*, Volume 18 Number 4, 16th – 28th February 2014.
- Kelsey, J. (2014) TPPA Environment Paper & Chair's Commentary posted by WikiLeaks: Issues for NZ. Unpublished Commentary. Retrieved from <http://wikileaks.org/tppa-environment-paper.html>
- LATF (2014) Operation Cobra II Press Release – 10th February 2014.
- Lopez-Casero, F. and Scheyvens, H. (2007). *Japan's public procurement policy of legal and sustainable timber: Progress, challenges and ways forward*. Hayama: Forest Conservation, Livelihoods and Rights Project, Institute for Global Environmental Strategies.
- Lowry, C. A. (2011) Case Study 2 - Green Commercial Building Rating Systems in the APEC Region (submitted by US). Paper presented at the APEC SCSC Green Buildings Conference, Singapore, 12-13 September 2011.
- People's Daily Online (13 Jan. 2010) China-ASEAN FTA to boost Malaysian palm oil export. <http://english.people.com.cn/90001/90776/90883/6867839.html>
- RIKS (2008) Technical Notes: Regional integration knowledge systems.
- RSPO (Producer) (2012) Transforming the market to make sustainable palm oil the norm. [Powerpoint file] [http://www.rspo.org/file/IG-1%20\(Low%20Res\).pdf](http://www.rspo.org/file/IG-1%20(Low%20Res).pdf)
- RSPO (2014) Market Data - As at 30 September 2014. http://www.rspo.org/en/Market_Data_-_As_at_30_September_2014
- Saunders, J. C. (2005) *Improving due diligence in forestry investments: Restricting legitimate finance for illegal activities*. London: Chatham House.
- Scheyvens, H., and Lopez-Casero, F. (2010) *Enhancing customs collaboration to combat the trade in illegal timber*. Hayama: IGES.
- Scheyvens, H., and Lopez-Casero, F. (2013) *Managing forests as a renewable asset for present and future generations: Verifying legal compliance in forestry in Papua New Guinea*. Hayama: IGES.

- Soerakoesoemah, R. (2012) ASEAN-China free trade area - A review. In K. E. Flick and K. M. Kemburi (Eds.) *ASEAN-China free trade area: Challenges, opportunities and the road ahead* (Vol. RSIS Monograph No. 22): S. Rajaratnam School of International Studies.
- Solidiance (2013) Thailand's green building goals: Aspirations and realities.
- THIHA (2013, 5 Dec.) Myanmar allows more Asian firms to produce wood products and foodstuff, ELEVEN Myanmar. <http://consult-myanmar.com/2013/12/05/myanmar-allows-more-asian-firms-to-produce-wood-products-and-foodstuff/>
- TPP (2013) WikiLeaks Release of Secret Trans-Pacific Partnership Agreement (TPP): Environment Paper Consolidated Text (Nov. 24, 2013).
- USITC (2010) *ASEAN: Regional trends in economic integration, export competitiveness, and inbound investment for selected industries*. Investigation No. 332-511, Publication 4176, Washington, DC.
- Wallace, W. (1990) Introduction: The dynamics of European integration. In W. Wallace (Ed.) *Dynamics of European Integration*. London (UK): Pinter Publishers.
- Xiufang, S., and Canby, K. (2011) *Baseline study 1, China: Overview of forest governance, markets and trade*. Washington DC: Forest Trends.
- Yanfang, T. (2008) *China's imports of Russian timber: Chinese actors in the timber commodity chain and their risks of involvement in illegal logging and the resultant trade*. Hayama: IGES.