

The government's roles in transnational forest governance*

Liu Jing

1 Introduction

Recent decades have witnessed the emergence of transnational business governance schemes that regulate business conduct by involving 'a significant degree of non-state authority in the performance of regulatory functions across national borders'.¹ In such schemes, the authority does not emanate from state or inter-government institutions, but from 'an array of private sector, civil society, multi-stakeholder and hybrid public-private institutions'.² A variety of transnational business governance schemes exist across sectors and industries, including organic food, coffee and tea production, tourism, forestry, fishery, aquaculture, palm oil production, and apparel production. Among these, the forest governance scheme has attracted intensive academic attention concerning its emergence and development, impact, constraints, and potential solutions.³

Two important forms of forest governance schemes currently exist: the widely applied certification schemes and the newly emerging legality schemes. The forest certification scheme is a private governance instrument, which requires an accredited, independent third-party certifier to evaluate and audit the production processes or methods according to pre-defined environmental and/or social sustainability standards.⁴ In the certification regime, standards are defined by a governing body independently of the government, and audits are conducted by private actors. In a legality regime, standards are defined by law, and timber producers can usually choose their own measures to verify and guarantee the legality of their products, usually by means of certification or other third-party verification schemes.⁵

Scholars increasingly realise that states and the certification schemes are intertwined. Rather than being bypassed by certification, the state plays an important role in the agenda setting, implementation, and enforcement stages of forest certification schemes.⁶ In the literature, it has been explored how states enable and

* The research is conducted under the umbrella of the project 'Smart Mixes in relation to Transboundary Environmental Harm'. I am grateful to Royal Netherlands Academy of Arts and Sciences for supporting the project. I am also grateful to Judith van Erp, Peter Mascini, Paul Verbruggen and all associated with this special issue for their very useful comments.

1 Eberlein et al. 2014, p. 3.

2 Eberlein et al. 2014, p. 1.

3 See Cashore, Auld & Newsom 2004; Pattberg 2005; Cashore et al. 2006, Gulbrandsen 2010; Bartley 2003.

4 Barry et al. 2012, p. 1.

5 Bartley 2014, p. 97-98.

6 Gulbrandsen 2014.

influence the certification scheme in various ways without participating directly in its regulatory process, such as acting as the legitimiser, the public monitor, or the buyer of timber products.⁷ The state can also participate directly in the regulatory process of industry-dominated certification schemes: for example, by participating in the negotiation of standards and by accrediting the certifiers.⁸ The extent of direct state participation may vary between jurisdictions;⁹ however, apart from the state's involvement in accreditation, most of these roles are not based on its authoritative position.

The majority of these studies on forest governance focus on developed countries, where the space for private standards and auditors is relatively unconstrained, and forest certification schemes are well institutionalised. The role of the government in emerging economies and developing countries, where forest certification still plays a modest role or is yet to be institutionalized, has only begun recently to attract academic attention. For example, Buckingham and Jepson argue that in China, instead of enabling and influencing the certification scheme, the government leads the initiation and operation process of forest certification.¹⁰ However, research into the role of the state in forest certification in emerging economies and developing countries is still sparse. Whether the state functions in a way similar to that of developed countries remains to be explored.

A phenomenon that may complicate the already complex picture is the emerging legality requirement. Developed countries are increasingly concerned about the legality of timber products imported from emerging economies and developing countries where the risk of illegal logging is high. Therefore, they require a verification of the legality of imported products, usually by third parties.¹¹ Some argue that the legality verification will promote the application of certification, especially in developing countries.¹² Others, however, regard it as a sign of the government's increasingly centred role.¹³ How the emerging legality requirement will influence certification and the role of government in emerging economies in forest governance is still under debate.

This paper explores the role of the government in the transnational forest governance schemes, based on a review of the existing literature. The general *indirect* role of governments in certification schemes in developed countries – including both the FSC scheme and the industry-dominated schemes – has been summarised by Gulbrandsen.¹⁴ However, country studies are still needed to understand how governments participate *directly* in the regulatory processes of industry-dominated schemes. Unlike the FSC, which is a global scheme, industry-dominated schemes are usually established at the national level, and are context based. This paper examines the roles of governments in industry-dominated schemes in

7 Overdevest 2010; Gulbrandsen 2014; Hysing 2009; Boström 2003.

8 Cadman 2011, p. 121.

9 Gale & Haward 2011.

10 Buckingham & Jepson 2013.

11 Overdevest & Zeitlin 2013.

12 Cashore & Stone 2012, 2014; Overdevest & Zeitlin 2014.

13 Bartley 2014.

14 Gulbrandsen 2014.

Liu Jing

developed and emerging economies, respectively, with special attention given to the latter, where the existing literature is scanty. Some emerging economies are establishing their own legality regimes, and the roles that governments play in these are also analysed.

After this introduction (1), Section 2 briefly introduces the development of trans-national forest governance (2). Section 3 summarises the traditional view concerning the roles of government in forest certification. These roles are derived from the literature regarding the FSC scheme and industry-dominated schemes (3). In Section 4, country-based studies are used to specify the roles governments play in industry-dominated schemes in particular developed countries (4). In Section 5, the manner in which the government influences certification schemes in some emerging economies is analysed. The influence of legality requirements on the role of the government in forest governance is also examined in this section (5). Section 6 presents the conclusion (6).

2 Transnational forest governance: a brief history

2.1 *The Emergence of Forest Certification Schemes*

For decades, forest degradation and deforestation in the tropics and other places have been of serious concern, and the international community has made great efforts to address this challenge by way of international law. The International Tropical Timber Agreement (ITTA) was reached, and its implementation organisation, the International Tropical Timber Organization (ITTO), was created in the 1980s. The ITTO was found to make too many compromises regarding economic losses, and was not able to deal effectively with deforestation. This was followed by a failure to reach a legally binding global forest convention in the 1992 UN Conference on Environment and Development.¹⁵

In addition to the failure to reach consensus at an international level, many countries found their domestic proposals – such as banning the import of tropical timber – vulnerable to challenges concerning international trade. Therefore, some of the governments redirected resources to support the private labeling programme, the emerging FSC.¹⁶

Having made great efforts in embedding forest management standards in international organizations and in promoting consumers boycott campaigns, environmental groups were also frustrated by the reality.¹⁷ The global institutional context dominated by neo-liberal agendas and rules of free trade in the 1990s made governmental regulation an unsatisfactory solution for global forest problems. In response, the WWF and other environment NGOs started to engage retailers and other commercial interests in creating a private certification scheme.¹⁸ The Forest Stewardship Council (FSC) was established during a meeting in 1993, with 130 participants from 26 countries, including representatives from environmen-

15 Gulbrandsen 2010.

16 Bartley 2003.

17 Bartley 2003, p. 444.

18 Gulbrandsen 2010, p. 52.

tal NGOs, social groups, retailers, manufacturers, forest-related companies, and professional certification bodies.¹⁹

The newly created forest certification schemes encountered a variety of responses in many jurisdictions. Certain countries, such as Sweden, favoured introduction of the certification scheme from the very beginning,²⁰ while the UK expressed strong hostility to the FSC in the early 1990s. In Australia, a wait-and-see approach was adopted. Some countries opted for a prompt response to the emergence of the FSC, by establishing their own industry-dominated certification schemes, such as the Sustainable Forest Initiative in the US(SFI), Canadian Standards Association in Canada (CSA), and the Norwegian Living Forests standard. Many such national certification schemes later became connected through endorsement by another influential international certification scheme, the Programme for the Endorsement of Forest Certification (PEFC).

2.2 *The Development of Forest Certification Schemes: Differences between Developed and Developing Countries*

The FSC and the PEFC are by far the largest global forest certification schemes, and provide coverage to 10% of the global forest area.²¹ Though tropical deforestation was the major impetus behind the initiation of the FSC, most support for forest certification has occurred in developed countries. By 2014, North America and Europe possessed most of the certified forests: 83.36% of the total FSC-certified areas²² and 93% of the total PEFC-certified areas.²³ Despite the initial hesitation or skepticism in some countries, most governments in Western countries have become supportive of forest certification schemes, along with the development of forest certification and globalisation of the timber market. For example, the FSC became dominant in UK because of its excellent reputation in the market and commitment on the part of British retailers.²⁴ Both the FSC and industry-dominated programmes have also gained popularity in Canada. Some provinces, such as Ontario, even mandate certification for major licensees, hoping to gain market recognition for its forest products.²⁵ Australia also became more supportive when its export market shifted to the EU and the US after the currency crisis in Asia.²⁶

The adoption of forest certification in emerging economies and developing countries, however, is still limited. Many factors constrict the institutionalisation of certification schemes in those places. For example, for many countries, the major

19 Klooster 2005, p. 406.

20 Hysing 2009.

21 Georgia-Pacific, Forest Certification Around the World, available at: www.gp.com/~/media/Corporate/GPCOM/Files/Sustainability/Sustainability-Document-List/Forest_Certification_Around_the_World.ashx?force=1.

22 FSC, Global FSC Certificates: Type and Distribution, October 2014, available at: <https://ic.fsc.org/facts-figures.19.htm>.

23 PEFC, Global Statistics: SFM & CoC Certification, available at: PEFC, Global Statistics: SFM & CoC Certification.

24 Gale & Haward 2011, p. 252-256.

25 Gale & Haward 2011, p. 189-193.

26 Gale & Haward 2011, p. 152-159.

Liu Jing

export market is Asia, which is less environmentally sensitive. Even when countries export substantially to North America and Europe, exported timber constitutes only a small fraction compared to their domestic consumption.²⁷ Their dominant forestry-related problems, such as corruption, limited governmental enforcement capacity, and conflicting tenure rights, cannot be addressed easily by certification.²⁸

2.3 The Rising Legality Regimes

Although forest certification has gained increasing support in developed countries, substantial limits are still encountered in their emerging economies. In many of these countries, forestry problems, such as illegal logging, are still prevalent. With the increasing globalisation of the timber trade, developed countries have come to realise that good forest governance cannot be achieved without engaging producers of timber products in developing countries. Developing countries can also increase their revenue by controlling illegal logging.²⁹ These situations triggered the emergence of the legality regime, which requires that all timber products entered into the market be in compliance with the law in the country of harvest. Such a requirement can be found in the EU, the US, and Australia.³⁰

The legality requirement provides a stepwise approach to certification, since it requires only the legal compliance of the timber products, and not the high standards of sustainability under certification schemes.³¹ Given the similarity of the legality requirements in the EU, the US and Australia, this paper uses the EU scheme to show how a legality regime may function and influence forest governance in exporting countries.

The Forest Law Enforcement, Governance, and Trade Action Plan (FLEGT) was launched in the EU in 2003, and aims at controlling illegal logging, especially the import of illegally logged timber into the EU market.³² Since 'the highest levels of illegal logging are found in developing and emerging market countries', the FLEGT mainly targets and influences these countries.³³ The promotion of trade in legal timber, through developing Voluntary Partnership Agreements (VPAs) and a timber licensing system, is at the core of the FLEGT.³⁴ A VPA is a voluntary agreement signed between the EU and a timber-exporting country, which establishes a legality assurance system (LAS) to ensure that all timber products exported to the EU are in compliance with the law of the exporting countries.³⁵ The LAS identifies, monitors and licenses legally produced timber. Given the limited enforcement capacity and the serious corruption phenomena in VPA partner countries,

27 Gulbrandsen 2010, p. 78-79.

28 Cashore et al. 2006, p. 566-577.

29 Wiersum et al. 2013, p. 2.

30 Smith, Murillo & Anderson 2013, p. 49-50.

31 Cashore & Stone 2014.

32 Brack 2005, p. 32.

33 FLEGT Action Plan, Section 4.1.

34 Helden 2012, p. 99; Brack 2005, p. 33.

35 www.euflegt.efi.int/what-is-vpa.

the EU lacks confidence in existing public regulation concerning illegal logging, and considers the principle of independent verification by third parties to be extremely important.³⁶

The EU Timber Regulation – another significant part of the FLEGT – was introduced in 2013, and prohibits the production and import of illegal timber products. According to the EU Timber Regulation, operators 'who place timber and timber products on the internal market for the first time' shall exercise 'due diligence' to ensure their products are legal.³⁷ The licenses obtained according to LAS under the VPAs and certifications granted according to the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) are accepted as an indication of 'due diligence'. In addition to that, the EU Timber Regulation does not specify which instruments are to be regarded as satisfying the due diligence requirement. Operators can choose their own specific measures.

The EU Timber Regulation, however, does prescribe a few requirements with regard to the due diligence system, including a risk assessment procedure. The origin of timber products is an important criterion to assess risks.³⁸ Therefore, though the due diligence obligation applies to both domestic products and all imported products, 'it is not difficult to imagine that timber harvested in Europe might in practice receive less scrutiny than imported timber, particularly if the latter originates in areas with high levels of illegal logging'.³⁹ Most of the high-risk countries are emerging economies and developing countries. This paper, therefore, discusses only the influence of the legality regime on emerging economies/developing countries, but not on developed countries. Public regulation in the former countries is usually not accepted as sufficient proof of legality, and verification by independent third parties is regarded as an important complement. Exporters in emerging economies and developing countries may therefore use certification, or other legality verification instruments, to secure their access to the Western market.

3 General introduction: role of the government in forest certification schemes

A variety of literature has examined the development of forest certification, including both the FSC and industry-dominated schemes in certain developed countries, and finds that the government usually influences the certification schemes at a distance, and does not participate directly in the schemes' regulatory process.⁴⁰ Gulbrandsen's research provides an overview of the *indirect* ways that the government influences forest certification, by breaking down the regulatory process of certification into agenda setting and negotiation, implementation, and monitoring/enforcement.

36 Brack 2005, p. 34.

37 EU Timber Regulation, Article 1.

38 EU Timber Regulation, Article 6.1(b).

39 Fishman & Obidzinski 2014, p. 9.

40 Overdevest 2010; Cadman 2011; Hysing 2009; Boström 2003.

Liu Jing

In the agenda-setting and negotiation stage, the government does not participate directly in negotiations, but provides 'expertise and technical advice, as well administrative or financial support'.⁴¹ The government can also support the certification scheme through political statements, mediating negotiations, and allowing a public company to join the negotiations.⁴² In addition to these 'soft' instruments, the government can also influence certification schemes through public regulation: for example, by setting the regulatory framework to shape the institutional background, such as establishing a fiscal system, property rights, and a basic infrastructure.⁴³ The government can also limit a certification scheme by supporting a competing scheme or adopting rules to regulate it directly.⁴⁴ The government can influence implementation by acting as a client of certification regimes, by providing support to the clients, or by adopting favourable public procurement policies.⁴⁵ Sweden, for example, seeks certification in public forests;⁴⁶ the UK and the Netherlands have procurement policies that favour certified forest products.⁴⁷

Though certification schemes usually rely on third parties to audit the performance, the government can support the process through the effective regulation of public rules and regulations.⁴⁸ Under both the FSC Principles⁴⁹ and PEFC Sustainability Benchmarks (the criteria to endorse national schemes),⁵⁰ compliance with the law and the protection of tenure rights and other social-economic rights are important assessment criteria. The legal compliance and land tenure issues cannot be solved by certification regimes alone, but rely on effective public enforcement. The government can also rely on independent certifiers in monitoring the compliance in certified area, and can prioritise its own inspections in other areas.⁵¹

41 Gulbrandsen 2014, p. 76.

42 Hysing 2009, p. 319-322.

43 Hysing 2009, p. 315; Cashore, Auld & Newsom 2004, p. 20.

44 Gulbrandsen 2014, p. 76; Gale & Haward 2011; Vertinsky & Zhou 2000.

45 Gulbrandsen 2014, p. 76.

46 Hysing 2009, p. 320.

47 Oliver 2009, p. 37, 56.

48 Meidinger 2006; Gulbransen 2014, p. 76-77.

49 <https://ic.fsc.org/preview.fsc-std-01-001-v4-0-fsc-principles-and-criteria-for-forest-stewardship.a-516.pdf>.

50 <http://pefc.org/resources/technical-documentation/pefc-international-standards-2010/676-sustainable-forest-management-pefc-st-10032010>.

51 Hysing 2009, p. 320.

Table 1 General and indirect roles of the government in certification regimes

	Agenda Setting and Negotiations	Implementation	Monitoring and Enforcement
Role of Government	Provide expert and technical advice regarding negotiations	Act as client for certification schemes (seek certification coverage)	Enforce public rules and regulations
	Provide financial or administrative support to certification schemes	Provide resources to clients for certification	Enact public procurement policies
	Public statement supporting certification schemes		
	Participation by public company in the negotiation of standards		
	Set regulatory frameworks		
	Enact rules that regulate certification programme activities		

Adapted from Gulbrandsen 2014, p. 77

The above list of roles was derived from the literature by analysing both the FSC scheme and industry-dominated schemes in developed countries. It shows that governments can influence the certification schemes without participating directly in their regulatory processes. Instead, governments can facilitate the negotiation, uptake, and enforcement of certification, adopt rules to regulate the activity of certification, or enforce public regulation. Such features fit well with the FSC scheme. As for the FSC, one reason that governments do not interfere directly in most aspects of the regulatory process is that the FSC was created in opposition to intergovernmental forest policy processes; therefore the government is not allowed to vote or to participate in the FSC's tripartite decision-making body.⁵² The accreditation of certifiers for an FSC audit is conducted by Accreditation Services International (ASI), an independent organisation.

As for industry-dominated schemes, the above indirect roles also apply. In addition, these schemes are also open to the *direct* participation of governments in the regulatory processes. For example, standards developed under such schemes often consider or incorporate the Sustainable Forest Management (SFM) Criteria & Indicators (C&Is) developed by national states or intergovernmental processes.⁵³ Certifiers under these national schemes are usually accredited by

52 Gulbrandsen 2010, p. 54.

53 Cadman 2011, p. 118-119.

Liu Jing

national accreditation bodies.⁵⁴ In short, governments of developed countries only participate indirectly in the FSC scheme, while they can participate both directly and indirectly in industry-dominated schemes.

Another difference between the role of governments of developed countries in the FSC scheme and industry-dominated schemes pertains to the level of governance. The FSC is a global programme with its own governance structure and global 'principles and criteria' for well managed forests. The FSC delegates authority to national affiliates to tailor the global 'principles and criteria' to concrete national or regional standards. Despite the differences in concrete standards, the common governance structure makes the role of governments more or less comparable between countries. However, industry-dominated schemes are independent national certification schemes, though many of them are linked through the endorsement of a mutual recognition framework – the PEFC.

These national industry-dominated schemes have their own governance structure, with different degrees of openness to governmental participation. In addition, the different political and regulatory frameworks also influence the ability and willingness of governments to participate in the regulatory processes of these certification schemes. Therefore, country-based studies are needed to understand how governments participate in the regulatory processes of the context based, industry-dominated schemes. The following section summarises country studies as regards how governments of developed countries have participated directly in the regulatory processes of industry-dominated schemes. The roles of governments in industry-dominated schemes in emerging economies are examined in Section 5.

4 Role of the government in industry-dominated schemes in developed countries

In addition to the indirect roles discussed above, governments can also participate directly in the regulatory process of industry-dominated schemes. As shown in the previous section, the role of the government in industry-dominated schemes is context specific. The literature regarding such schemes in Sweden, Canada, Australia, and the UK illustrates the different forms of government participation.

In some countries, such as Sweden, the government has refrained from becoming actively involved in certification schemes, with the exception of accrediting certifiers for its industry-dominated scheme.⁵⁵ An industry-dominated scheme started to develop in Sweden after the forest owner associations withdrew from the FSC negotiations, due to the demands of indigenous Sami representatives. The forest owner associations, led by the industrial facilities association Sodra, negotiated their own forest certification scheme, the Svenska, which was endorsed later by the PEFC.⁵⁶ The government did not join the negotiation nor does it have a seat

54 Gulbrandsen 2010, p. 62.

55 Hysing 2009, p. 319.

56 Gulbrandsen 2005.

on the decision-making body. Instead, it provided consultation during negotiations to ensure the compatibility of standards with national legislation.⁵⁷

More active government participation is observed in Canada's industry-dominated CSA scheme. Shortly after establishment of the FSC, Canada began to develop its national competitor, initiated by the industry. The government, however, declared itself to be neutral with regard to the FSC scheme and the CSA regime, and provided more support to the latter in its early days. It participated in the stakeholder meetings to negotiate for the standards,⁵⁸ and the national SFM C&Is developed by the government was attached to the CSA standards. In the established CSA scheme, a Technical Committee was composed to review and revise the standards, and government regulators are members of the Technical Committee.⁵⁹

In Canada, the negotiations on standards were led by the industry, and the government was only one of multiple stakeholders. The governments in Australia and UK, however, initiated and coordinated the agenda setting process. The formal process to negotiate forest certification only started in late 1990s, when the Asian currency crisis triggered the shift of the market from Asia to Europe and North America. The Department of Agriculture, Fisheries, and Forestry hosted a stakeholder meeting in 1999, at which it was decided to establish a few committees to negotiate and draft a national scheme, the AFS. These standard-making bodies mainly included government and industry representatives, with NGO representatives being incorporated later into the drafting body. The government-issued SFM C&Is provided the basis for the AFS standards, and the national accreditation body JAS-ANZ accredits certifiers for the AFS scheme.

UK forest certification provides an exceptional example. Unlike the Svenska, the CSA, or the AFS, which are complete certification schemes, including the standards, the auditing rules, and the dispute resolution procedure, the UKWAS in the UK is simply a standard. The audit and enforcement relies on certifiers working in the UK, such as those accredited under the FSC and PEFC schemes.⁶⁰ Initially, working groups for the FSC and a government- and industry-led certification system developed in tandem. The strong environmental movements in the UK allowed the NGOs to mobilise many retailers to commit to FSC products. To secure access to the market, the government embarked on discussions with the FSC to make the two schemes equivalent. They agreed to develop an audit protocol independently of the FSC but endorsed by it. This audit protocol, the UKWAS standard, was negotiated under the coordination of the government, which managed the negotiations, covered the costs, and hosted the discussions. A few government and intergovernmental forestry management standards/guidelines were reflected in the UKWAS standard, which was published in 1999 and later recog-

57 Hysing 2009, p. 320.

58 Gale & Haward 2011, p. 184-193.

59 www.certificationcanada.org/english/programs_used_in_canada/csa-forest_certification.phpSA —Canadian Standards Association.

60 <http://ukwas.org.uk/about-us/purpose>.

Table 2 *Role of the government in industry-dominated schemes in a few developed countries*

	Agenda setting and negotiations	Implementation	Monitoring and Enforcement
Sweden	Does not join negotiations; only provides consultancy	Accredits certifiers	None
Canada	National SFM C&Is developed by the government are incorporated into CSA standards	Accredits certifiers	None
	Participates in negotiations led by the industry		
	A member of the of CSA scheme standard-setting body		
Australia	Initiates, participates in, and coordinates negotiations	Accredits certifiers	None
	Standards based on national SFM C&Is developed by the government		
UK	Negotiations with the FSC	None	None
	Coordinating negotiation for UKWAS		
	Seating on the decision-making body		
	(Inter)governmental guidelines reflected in the standards		

nised by the FSC as its equivalent.⁶¹ The government also has a formal seat in the UKWAS decision-making body.

The above analysis demonstrates that the government can participate in the regulatory process of forest certification schemes in various ways, ranging from joining the negotiation as an equal party, initiating and coordinating the negotiations, having a seat in the decision-making body of the certification scheme, and accrediting the certifiers. With the exception of accreditation of the certifiers, most of the roles are not based on the authoritative position of the state. The role of private parties such as industry, third-party certifiers, and civil society is relatively unlimited. They play an important part in the regulatory stages: negotiating standards, conducting certification, managing the certification scheme, or monitoring enforcement of the scheme.

61 Gale & Haward 2011, p. 218-220.

5 Role of the government in forest governance schemes in emerging economies

In this section, whether the government plays the same role in industry-dominated certification schemes in developed and developing countries is explored. The interaction between public and private authority becomes even more complex with the emergence of the legality requirement.

It is necessary to examine in concrete contexts the role played by the government in certification in emerging economies/developing countries, together with how the balance relating to private and public authorities is influenced by a legality verification regime. Brazil and Indonesia were chosen as examples to examine the roles of government, as they are the largest tropical wood-producing countries, and carry a high risk of illegal logging. Compared to other developing countries, certification is better institutionalised there. In addition, they have substantial export exposure on the EU, US and Australian market, and therefore are expected to be influenced by the legality requirements. A third country, China, is added to the discussion, because it is not only a major producer (208 million ha forest, 311 million forest revenue)⁶² but also a timber processor playing an important role in the global value chain of forest products.⁶³ Though its domestic timber products are associated with low illegal risks, its imported products are regarded to carry higher risks.⁶⁴ The three countries selected provide examples of the different extents to which the institutionalisation of certification has been implemented. They also demonstrate the divergent responses to the legality requirement: Indonesia has signed a VPA with the EU, where the legality verification scheme is shaped by the VPA; China is considering developing its domestic legality verification scheme; and Brazil has adopted a more hostile attitude.

Discussion concerning the three countries follows a two-step process: firstly, development of the certification scheme and the role of government are examined; secondly, the implication of the emerging legality requirement is described. As in the developed countries, the role of the government in certification schemes is analysed in the regulatory processes of such schemes. Indonesia has established a verification scheme with a structure similar to certification schemes; hence, the discussion also follows this approach. As is discussed later, Chinese's legality scheme is still under development, and Brazil relies on governmental inspection and control rather than involving third parties in verifying the legality; the analysis is not able to follow the same approach regarding certification. Therefore, this section introduces briefly how government controls the issue of legality in Brazil, and how verification of legality is developed in China.

62 <http://rainforests.mongabay.com/deforestation/2000/China.htm>.

63 European Forest Institute 2011, p. 14-22.

64 www.globalwitness.org/sites/default/files/import/a_disharmonious_trade_pagtes_97_120.pdf.

Liu Jing

5.1 Brazil

Brazil responded quickly to the rising global certification regime, owing to consumer demands and the threat of environmental boycotts from the North.⁶⁵ An FSC working group was established in 1997 to develop criteria tailored for the Amazon. In response to that, certain industry groups started to develop their own certification scheme, CERFLOR. The drafting process was led by a quasi-private agency, the Brazilian Association of Technical Standards (ABNT), and the government participated in the negotiation.⁶⁶ The national legislation and international conventions ratified by the Brazilian government, as well as the SFM C&Is created by intergovernmental processes, provided the basis for the CERFLOR standard.⁶⁷ This standard was launched officially by six ministries of the federal government in 2002⁶⁸ and is incorporated within the national standardization framework.⁶⁹ Regulators compose one of the four chambers of the standard-setting bodies of the CERFLOR scheme.⁷⁰

A governmental authority, the National Institute of Metrology, Standardisation, and Industrial Quality (INMETRO), manages the certification system and accredits the certifiers.⁷¹ If there is a complaint against the assessment procedure, the initial complaint needs to be made to the certification body. If it remains unresolved, the appeal can be passed on to INMETRO, and in the last instance to CONMETRO.⁷²

CERFLOR became operational in 2003, and was endorsed by the PEFC in 2005. Despite the large size of the areas, the coverage rates of both CERFLOR and the FSC in Brazil are still low, especially for natural forests.⁷³ In addition to the usually quoted high costs involved, the government's cautious attitude is also a constraint for the spread of certification. On the one hand, the government admits officially that 'voluntary certification is an important means to internalise socio-environmental costs, but does not supplant national regulation'.⁷⁴ On the other hand, few efforts were made at the federal level to increase the demand for certified products. However, a few states did move beyond the federal level. For example, São Paulo has a procurement policy promoting the purchase or use of certified wood.⁷⁵ The government of Acre offers technical and monetary support to certified community-based forestry companies.⁷⁶ Local regulators sometimes imposed additional scrutiny on those who had adopted certification, for fear that

65 May 2005, p. 8.

66 Araujo 2008, p. 20-21.

67 www.globalwitness.org/sites/default/files/import/a_disharmonious_trade_pagtes_97_120.pdf.

68 Ozinga 2004, p. 62.

69 www.pefc.org/component/pefcnationalmembers/?view=pefcnationalmembers&Itemid=48/31-Brazil.

70 Ozinga 2004, p. 63.

71 May 2005, p. 13-14; Ozinga 2004, p. 62.

72 Ozinga 2004, p. 64.

73 www.florestal.gov.br/snif/producao-florestal/certificacao-florestal.

74 May 2005, p. 4.

75 Espach 2006, p. 75.

76 Humphries & Kainer 2006, p. 41.

they obfuscated their extract from other uncertified areas.⁷⁷ Some local regulators even withheld harvesting licences from FSC-certified forest owners, viewing FSC standards and audits as infringements on their authority.⁷⁸

When the FLEGT Action Plan was initiated, and many exporting countries started to negotiate a VPA with the EU, Brazil showed little interest in it. The government argues that the primary threat to Brazil forests is land conversion rather than illegal logging itself. Some other measures, such as supply-side control are regarded as a more appropriate approach than demand-side instruments by the government. Moreover, Brazil has long been resistant to the 'internationalisation' of the Amazon, and is concerned about maintaining sovereign control. Social and environmental movements are often regarded as agents of an international lobby, and therefore are treated cautiously by the government.⁷⁹ As a result, Brazil favours a government-led legality-control system, with command and control instruments and enforcement mechanisms⁸⁰ rather than a third-party audited verification system. The government-led control system is based on planning and permits for land use or for land use change and harvests. Timber-related transactions and transportation are tracked by the Declaration of Origin System (DOF), with verification and monitoring is carried out by environmental agencies.⁸¹ The centralised ports for export trade are also amenable to national controls.⁸²

In summary, the Brazilian government plays a role similar to that of developed countries in the agenda-setting stage by participating in negotiations, making public statements to support the certification scheme, and developing the SFM C&Is, which are later incorporated into the certification standards. A more active role is observed in the implementation and enforcement stages. The government not only accredits the certifiers, adopts procurement policies, and provides assistance to the certified community-based forest companies (in some states), but also manages the scheme directly and is involved in the dispute resolution procedure. As for the legality regime, the Brazilian government prefers to rely on public regulation to ensure the legality of their products, rather than establishing a specific third-party verified system.

77 May 2005, p. 13-14.

78 Espach 2006, p. 78.

79 Singer 2008, p. 527.

80 Bueno & Cashore 2013, p. 4.

81 Thiel 2008, p. 119-121.

82 Brown et al. 2008, p. 56.

Table 3 Role of the government in the industry-dominated certification scheme (CERFLOR) in Brazil

		Agenda Setting and Negotiation	Implementa-tion	Monitoring/ Enforcement
Brazil	CERFLOR (Voluntary)	<p>Negotiation led by a quasi-private agency, with the participation of government and industry</p> <p>Standard-making CERFLOR body includes government</p> <p>Public Statement supporting certification schemes</p> <p>(Inter)National law/SFM C&Is incorporated into the standards</p> <p>Government launched CERFLOR and included it in national standardisation schemes</p>	<p>Managed by a government agency</p> <p>The agency also accredits certifiers</p> <p>Sao Paulo has a procurement policy</p> <p>The government of Acre provides technical and monetary support to certified community-based forestry companies</p>	<p>Dispute resolution (INMETRO; in the last instance CONMETRO)</p> <p>Sometimes more inspection or limits in certified areas</p>

5.2 Indonesia

Indonesia's interest in forest certification started in the early 1990s, and two voluntary schemes became operational in 1999: the FSC and a national certification scheme, the Indonesian Eco-label Institute (LEI) scheme. The international conferences, and boycotts initiated by international NGOs, pushed Indonesia to develop such schemes. The Ministry of Forestry (MoF) played an important role in driving the LEI scheme.⁸³ The Minister of Forestry announced that he had asked the former Minister of the Environment, Emil Salim, to establish a national certification scheme at the end of 1993. Emil Salim established the LEI working group to negotiate the standards, involving a variety of stakeholders, such as the government, academia, NGOs, and the private sector.⁸⁴ The standards were drawn from international and national documents, such as FSC C&Is, ISO 14000 standards, ITTO C&Is, and Indonesian national C&Is, and were later approved by the government (the Indonesian National Standards Body).⁸⁵

The LEI institute was officially established as a foundation in 1998, and later became the accreditation body, which accredited its own certifiers.⁸⁶ The LEI was transformed into a constituent-based organisation in 2009, with its four-chamber membership. The government, however, is not a member of the LEI and cannot directly govern the institution.⁸⁷ The penetration rates of both the FSC and LEI are still slow. By the end of 2013, 21 units covering 1.52 million hectares of forest

83 Muhtaman & Prasetyo 2006, p. 42.

84 Tacconi 2007, p. 265.

85 Muhtaman & Prasetyo 2006, p. 43-46.

86 Tacconi 2007, p. 265.

87 www.lei.or.id/anggota-lei.

held certification from the FSC;⁸⁸ LEI certification covers 1.89million hectare forests.⁸⁹

A mandatory certification scheme was introduced in the early 2000s, under which independent auditors (LP) assess the performance of the industries according to sustainable forest management standards, issued via a few decrees in 2002 and 2003.⁹⁰ These independent auditors need to be accredited by the MoF. An Evaluation Team was established under the MoF to assess the LP's audit reports. The MoF covers the costs of audits in the first three years, and companies are responsible for the costs afterwards.⁹¹ A dispute resolution mechanism, the Verification Advisory Council, was set up, appointed by the MoF. However, since its establishment the Council has rarely met.⁹² Although this certification scheme is mandatory, only 62 forest concessions had been certified up until March 2013, composing only 35% of the total number of forest concessions.⁹³ This certification system is also criticised as lacking independence and transparency, or being paper-based, with few meaningful changes.⁹⁴

To promote the adoption of certification, the MoF adopted a policy to alleviate the administrative burden for certified companies, such as exempting them from reductions in annual allowable cut, allowing them to self-prove their annual work plan,⁹⁵ and freeing them from field inspections. In practice, however, many companies that obtained certification complained that inspections from local forest agencies remained in force, resulting in unexpected costs. This was because after decentralisation in the late 1990s, the MoF no longer had authority to control local forest agencies, and these could still conduct field inspections of certified forests.⁹⁶

The effort to introduce certification yielded limited results, with only a small amount of interest in certification. However, Indonesia still faced strong pressure from consumer countries and civil society campaigns to tackle its rampant illegal logging.⁹⁷ Hence, the government adopted a stepwise approach by introducing a legality requirement. A multi-stakeholder dialogue was established to negotiate the legality standard, led successively by the Alliance to Promote Certification and Combat Illegal Logging (established by the Nature Conservancy and the WWF) and LEI. The standard was submitted to the MoF for approval in late 2007, and was signed into law in 2009.⁹⁸ This 2009 regulation combines the existing mandatory certification scheme – based on sustainable management standards – with

88 www.tff-indonesia.org/index.php/programs/certification-support/list-of-fsc-certified-forest.

89 www.lei.or.id/iges-study-on-forest-certification.

90 Wells 2008, p. 179.

91 Wells 2008, p. 180.

92 Wells 2008, p. 177-180.

93 Wijaya, Rosyidie & Onimaru 2014, p. 656.

94 Wells 2008, p. 181.

95 Tacconi, Obidzinski & Agung 2004, p. 14.

96 Wijaya, Rosyidie & Onimaru 2014, p. 662.

97 Tacconi 2007; Wells 2008, p. 175-176.

98 Cashore & Stone 2014, p. 53.

Liu Jing

a new Timber Legality Assurance System (TLAS) – based on the negotiated legality standards.⁹⁹

Another approach taken by Indonesia to combat illegal logging was to discuss the VPA with the EU. Negotiations began in 2007, the agreement was concluded in 2011,¹⁰⁰ and the legality standard and the SFM standard defined under the 2009 regulation were incorporated into the VPA.¹⁰¹ Under the new system, forest operators can apply for both mandatory certification and legality verification. The assessment is conducted by third party certifiers/verifiers, who are regulated by the MoF.¹⁰² More transparency has been introduced into the system, with independent monitoring institutions such as civil society and NGOs being encouraged to monitor the process of accreditation and auditing. They can raise objections regarding the legality verification, and can file complaints with the National Accreditation Body.¹⁰³

Another voluntary forest certification scheme, the Indonesian Forestry Certification Cooperation (IFCC), was established in 2011. The IFCC published its SFM standard and Chain of Custody standard, which were endorsed by the PEFC in October 2014. The Standardisation Committee, the IFCC standard-setting body, is composed of business, NGOs, local communities, the scientific community, governmental authorities, and so on.¹⁰⁴ The IFCC relies on the national accreditation body to accredit certifiers.¹⁰⁵

In summary, Indonesia presents a more complicated picture with respect to certification, including both voluntary schemes, such as the FSC, LEI, and the IFCC, and a mandatory scheme. The role of the government in such schemes also varies significantly. The government participated in and coordinated discussions concerning LEI standards, but has neither a seat in its governing body nor any authority to accredit certifiers. The latter two roles are observed in the IFCC scheme. The mandatory scheme, however, is led by the government, both in terms of standard setting and accrediting. The government also manages the mandatory scheme, evaluates the auditing of certifiers, and resolves disputes. Third parties are involved only to a limited extent to conduct on-the-ground assessment. More room for stakeholders and the public was allowed after the mandatory scheme had been combined with the legality verification scheme and incorporated into the VPA. A legality verification scheme was also established in accordance with the VPA. The government plays a leading role in the legality verification scheme, both in terms of system management and setting standards, while third-party verifiers are used to conduct the audit, and the public is encouraged to monitor the process.

99 Wijaya, Rosyidie & Onimaru 2014.

100 Voluntary Partnership Agreement between the European Union and the Republic of Indonesia on Forest Law Enforcement, Governance and Trade in Timber Products to the European Union, Official Journal of the European Union, L 150/252, L150/299 (2014).

101 VPA, Annex 5.

102 VPA, Annex 5, section 4.1; 4.2.

103 VPA, Annex 5, 4.1.

104 Form International 2014, p. 19.

105 Form International 2014, p. 146.

Table 4 Role of the government in industry-dominated certification schemes and in the legality verification scheme in Indonesia

		Agenda Setting and Negotiations	Implementation	Monitoring/Enforcement
Indonesia	LEI (voluntary)	Government initiates and coordinates negotiations National SFM C&Is incorporated	Not part of the governing body/ not an LEI member LEI accredits certifiers itself	Law provides less administrative burden and more discretion to certified companies, but not always well enforced
		Government approves standards After LEI establishment, government has no formal role in developing standards		
	Mandatory scheme	Deciding standards Financial support to those who seek coverage in early stages	Manages the system Accredits certifiers	Evaluates audits of certifiers Dispute resolution
	IFCC (voluntary)	Government a member of decision making body	Accredits certifiers	
	Legality verification scheme	Deciding standards, with the involvement of multiple stakeholders	Accredits verifiers	Civil society is encouraged to monitor Disputes are resolved by government agency

5.3 China

Two certification schemes are now operating in China: the Working Group for the FSC Chinese Standards and the China Forest Certification Scheme (CFCC). The FSC issued its first certification in China in 1999, and the Working Group was established in 2007. In the early stage, the FSC received cautious support from the government,¹⁰⁶ but the initiation and development of the CFCC was led

106 Bartley 2014, p. 102-103.

Liu Jing

strongly by the government. The process started in 2001, when a forest certification branch and a leading group were established under the State Forest Agency to prepare a national certification scheme.¹⁰⁷ A few governmental rules were subsequently adopted, in preparation for the structure regarding forest certification, and some government-guided pilot procedures were conducted in a few provinces.¹⁰⁸ The standards were launched formally by the State Forest Agency in 2007, and two years later legislation was published to set the rules for the procedure of certification.

The China Forest Certification Council (CFCC) was established in 2010, as the governing body of the China Forest Certification Scheme. The CFCC claims to be a multi-stakeholder process, but its Secretariat is established under a public institution affiliated with the government.¹⁰⁹ The CFCC is responsible for drafting standards and operating the scheme (the Charter of the CFCC, Article 3), but its activities are regulated by the Certification and Accreditation Administration (the CNCA, a public authority).¹¹⁰ The CFCC is responsible for resolving disputes concerning the auditing of certifiers. Any complaints against the CFCC are made to the CNCA.

According to Chinese law, certifiers working in China need to obtain permission from the CNCA. An agency established under the CNCA – the China National Accreditation Service for Conformity Assessments (CNAS) – acts as the accreditation body for certifiers. The requirement to obtain approval is regarded as *de facto* restriction, since CNCA has no clear procedures for approving forestry certifiers.¹¹¹ Failure to receive approval from the CNCA means that certifiers run the risk of being treated as illegal and having to face hefty fines. Currently, the only institution approved by the CNCA to conduct forest certification is *Zhonglin Tianhe*, a Chinese-based certification body. Though it is not affiliated with the government, many question its independence, owing to its close government ties.¹¹²

The China Forest Certification Scheme, endorsed by the PEFC in 2014, has a meta-standard, and is open to endorse national certification schemes. The SFA has asked the FSC repeatedly to recognise the CFCC. However, the FSC operates its own standard, and is not open to mutual recognition.¹¹³ To date, no foreign certifiers who are responsible for conducting FSC certification have been approved by the CNAS in China. The only approved certification body in China, *Zhonglin Tianhe*, has not been accredited by the organisation required by the FSC. Therefore, FSC certification runs a high risk of legal uncertainty in China.¹¹⁴

107 Zhao et al. 2011, p. 1087.

108 Zhao et al. 2011, p. 1087-1088.

109 The Charter of the CFCC, Article 4, available at: www.cfcs.org.cn/zh/defined-view/8.action?menuid=613 (in Chinese).

110 The Temporary Implementation Rules for Forest Certification in China, Issued by the CNCA 2009.

111 Bartley 2014, p. 103.

112 Buckingham & Jepson 2013, p. 291.

113 Buckingham & Jepson 2013, p. 287.

114 Barley 2014.

The certification schemes in developed countries, including the PEFC schemes, are usually under scrutiny by eNGOs (environmental non-governmental organisations). This may not, however, be replicated in China due to the government's control of eNGOs.¹¹⁵ In China, eNGOs are confronted with strict legal and administrative barriers, making their legitimacy a serious concern. Only a few of them are registered with the government and are considered legal, many of which are government-organised NGOs. eNGOs in China usually take non-confrontational measures,¹¹⁶ and tend not to challenge the government-led certification scheme. This also explains why China can push forward a national forest certification scheme quickly, without engaging in a long deliberative bargaining process involving various stakeholders.

A green procurement policy has been developing since 2006, when the Ministry of Finance and Former State Environmental Protection Agency (now Ministry of Environmental Protection) issued a normative document that required governmental procurement to give priority to products with an environmental label. Each year, these two ministries publish a list of such products.¹¹⁷ With the development of forest certification schemes in China, the government is also considering including forest certification in its procurement policy.¹¹⁸ Of the certified forest operators under the CFCC, many are local forestry agencies (public authorities), and manage the state forests.¹¹⁹

The initial response to the mounting legality requirement in China was one of skepticism, with forest industry regarding it as a non-tariff trade barrier, and the government viewed it as an infringement on national sovereignty. Acceptance was triggered only after the industry and the government were assured that the legality requirement would not be used to change domestic policies.¹²⁰ A few bilateral coordination programmes have been launched to address illegal logging and trade issues, and a national timber legality verification system is under development by the State Forest Agency.¹²¹ The legality regime is especially interesting, because China is not only an exporting country that needs to satisfy the legality requirement of developed importing countries, but also a country with substantial imports of timber products that carry with them high risks involving illegality. Research shows that if China and other major importing countries, such as New Zealand and East Asia, are also engaged in the import ban of illegal forest products, the global illegal logging activities will be substantially reduced.¹²² Though the concrete structure of the legality regime in China is still in its infancy, scholars predict it will become similar to the EU regime, but with a more lenient legality requirement. Instead of calling for exporting countries to set up a specific

115 Buckingham & Jepson 2013, p. 292.

116 Faure & Jing 2014, p. 255-258.

117 www.mep.gov.cn/ztdb/rdzl/bzcpqgqd/.

118 Buckingham & Jepson 2013, p. 287.

119 www.cfcs.org.cn/zh/findcompany.action.

120 Cashore & Stone 2014, p. 55, 59.

121 Cashore & Stone 2014, p. 54; Huang, Wilkes, Sun & Terheggen 2013, p. 350; European Forest Institute 2011, p. 37.

122 Gan, Cashore & Stone 2013.

Table 5 Role of the government in the industry-dominated scheme (CFCC) in China

		Agenda Setting and Negotiations	Implementation	Monitoring/Enforcement
China	CFCC (voluntary)	<p>Standard-setting process led by the government</p> <p>Standards launched by the government</p> <p>After establishment, standard-setting rights transferred to the CFCC, whose independence is questioned</p> <p>Government adopts legislation regulating certification process</p>	<p>Managed by CFCC, which is regulated by the government</p> <p>Certifiers need to be approved and accredited by the government;</p> <p>Procurement policy under development</p> <p>Act as a certification client</p>	<p>Government organises/controls civil society</p> <p>Dispute resolution</p>

LV system, it may endorse the timber products labeled under the legality or certification standards of those countries, such as the legality licenses under VPAs, the FSC, or other forest-related certificates.¹²³

In summary, strong government involvement can also be observed in the CFCC scheme in China. The standards were drafted as a governmental process, and were launched officially by the government. A separate organisation, the CFCC, was established to operate the scheme, which is regulated by the government. And through its authority to approve the certifiers, the government exerts a strong influence in favouring one scheme (CFCC) over another (FSC). There is also limited room for eNGOs to monitor the operation of certification schemes in China, due to the government's control of eNGOs. The legality regime is still under development, and the process is being led by the government.

5.4 Summary

The above analysis demonstrates clearly that governments can play various roles in industry-dominated schemes in emerging economies. Roles such as those in developed countries are observed in the LEI and IFCC schemes, where the government participates in/coordinates the negotiations or accredits the certifiers. The government plays a more active role in other schemes, such as CERFLOR, the mandatory certification scheme in Indonesia, and the CFCC, by deciding standards through legislation, by having government authorities manage the scheme, and by limiting the FSC scheme through strict control of the certifiers.

The role of the government in forest governance may be strengthened further via the legality regimes. Indonesia established its TLAS scheme through the VPA with the EU. Under this plan of action, standards of legality are determined according

123 Huang et al. 2013, p. 350; Sun & Canby 2011, p. 37.

to the VPA. The government manages the system, regulates third-party verifiers, and resolves disputes. In China, a national LV scheme is still under development, led by the government. The government in Brazil is more resistant to the legality regime, and prefers to control the issue of legality through its own public regulatory system.

6 Conclusion

Transnational forest governance schemes began to develop in the 1990s when governmental regulation failed to result in a satisfactory level of success. The new institutional background triggered the emergence of forest certification schemes, often led by NGOs or industrial organisations rather than by the government. Such schemes have gained wide support in developed countries, but their rate of penetration in emerging economies and developing countries is still low. A step-wise approach is now emerging, introducing attainable standards of legality instead of high standards of sustainability. The emerging legality regimes may place governments back at the centre of forest governance.

Though certification schemes were developed initially by actors in the private sector in response to the failure of public regulation, they are often intertwined with state control. The government can play various roles in all three regulatory processes involving certification schemes. In both the FSC and industry-dominated schemes, the government can adopt measures to shape the institutional background, promote the spread of certification and regulate its operation, without participating directly in the regulatory process. Industry-dominated schemes are more open to direct government participation than is the FSC scheme. Since industry-dominated schemes are context based, studies were conducted to examine the roles of governments in four developed countries and in three emerging economies, respectively. In developed countries, the government is seen to participate in the regulatory process, though usually not as an authoritative party, and room for private actors in such schemes is relatively unconstrained. Governments can play a similar role in some industry-dominated schemes in emerging economies, such as LEI and the IFCC in Indonesia. In other cases, governments can play a very active role, such as deciding standards, managing the system, and resolving disputes. The room for private actors is more limited in these instances. CER-FLOR in Brazil, the mandatory scheme in Indonesia, and the CFCC in China provide such examples.

The increasing legality requirement from some developed countries may influence further the relationship between private and public authority in forest governance. The case studies of the three emerging economies described above highlight a strong government involvement in their legality regimes. In other words, the advancing legality regime is beginning to put the state, especially in the emerging economies and developing countries, squarely back at the centre of global forest governance. China may well exemplify this new stage of forest governance, because not only does it export to countries demanding legal verification, it also imports from countries where the risk of illegal logging is high. The ques-

Liu Jing

tion of how such a new stage of global forest governance will function, and whether it will achieve a more effective outcome, offers an exciting direction for future research.

References

Araujo, M., *Forest Certification in Brazil: Choices and Impacts*, Doctoral dissertation at University of Toronto 2008.

Barry, M. et al., *Toward Sustainability: the Roles and Limitations of Certification*, Washington, DC: RESOLVE 2012.

Bartley, T., 'Certifying Forests and Factories: States, Social Movements, and the Rise of Private Regulation in the Apparel and Forest Products Fields', *Politics & Society* 2003-31(3), p. 433-464.

Bartley, T., 'Transnational Governance as the Layering of Rules: Intersections of Public and Private Standards', *Theoretical Inquiries in Law* 2011-12(2), p. 517-542.

Bartley, T., 'Transnational Governance and the Re-centered State: Sustainability or Legality?', *Regulation & Governance* 2014-8(1), p. 93-109.

Boström, M., 'How State-dependent is a Non-state-driven rule-making Project? The Case of Forest Certification in Sweden', *Journal of Environmental Policy & Planning* 2003-5(2), p. 165-180.

Brack, D., 'Controlling Illegal Logging and the Trade in Illegally Harvested Timber: the EU's Forest Law Enforcement, Governance and Trade Initiative', *RECIEL* 2005-14(1), p. 28-38.

Brack, D. & J. Saunders, *Public Procurement of Timber: EU Member State Initiatives for Sourcing Legal and Sustainable Timber*, Discussion Paper for Workshop on Public Procurement of Timber, Copenhagen, 27 September 2004.

Brown, D. et al., *Legal Timber: Verification and Governance in the Forest Sector*, London: the Overseas Development Institute 2008.

Buckingham, K. & P. Jepson, 'Forest Certification with Chinese Characteristics: State Engagement with Non-state Market-driven Governance', *Eurasian Geography and Economics* 2013-54(3), p. 280-299.

Bueno, G. & B. Cashore, *Can Legality Verification Combating Illegal Logging in Brazil? Strategic Insights for Policy Makers and Advocates*, IUFRO Issues and Options Brief 2013, available at: www.iufro.org/.../Issues_Options_Legality_Verif_Brazil_11_12_13_pdf/.

Cadman, T., *Quality and Legitimacy of Global Governance: Case Lessons from Forestry*, London: Palgrave Macmillan 2011.

Cashore, B., G. Auld & D. Newsom, *Governing through Markets: Forest Certification and the Emergence of Non-state Authority*, New Haven, CT: Yale University Press 2004.

Cashore, B., F. Gale, E. Meidinger & D. Newsom (eds.), *Confronting Sustainability: Forest Certification in Developing and Transitioning Societies*, New Haven, CT: Yale School of Forestry and Environmental Studies 2006.

Cashore, B. & M. Stone, 'Can Legality Verification Rescue Global Forest Governance?: Analyzing the Potential of Public and Private Policy Intersection to Ameliorate Forest Challenges in Southeast Asia', *Forest policy and economics* 2012-18(1), p. 13-22.

Cashore, B. & M. Stone, 'Does California Need Delaware? Explaining Indonesian, Chinese, and United States Support for Legality Compliance of Internationally Traded Products?', *Regulation & Governance* 2014-8(1), p. 49-73.

Eberlein, B., K.W. Abbott, J. Black, E. Meidinger & S. Wood, 'Transnational business governance interactions: Conceptualization and Framework for Analysis', *Regulation & Governance* 2014-8(1), p. 1-21.

Espach, R., 'When is sustainable forestry sustainable? The forest stewardship council in Argentina and Brazil', *Global Environmental Politics* 2006-6(2), p. 55-84.

European Forest Institute, *Baseline Study. China: Overview of Forest Governance, Markets and Trade 2011*, http://forestindustries.eu/sites/default/files/userfiles/1file/baseline_study_china_report_en.pdf.

Faure, M.G. & L. Jing, 'Compensation for Environmental Damage in China: Theory and Practice', *Pace Environmental Law Review* 2014-31(1), p. 226.

Fishman, A. & K. Obidzinski, 'European Union Timber Regulation: Is It Legal?', *Review of European, Comparative & International Environmental Law* 2014-23(2), p. 258-274.

Form International, *PEFC Conformity Assessment: Indonesia Forest Certification Cooperation Scheme 2014*.

Gale, F. & M. Haward, *Global Commodity Governance: State Responses to Sustainable Forest and Fisheries Certification*. Hampshire: Palgrave Macmillan 2011.

Gan, J., B. Cashore & M. Stone, 'Impacts of the Lacey Act Amendment and the Voluntary Partnership Agreements on illegal logging: implications for global forest governance', *Journal of Natural Resources Policy Research* 2013-5(4), p. 209-226.

Gulbrandsen, H., 'The Effectiveness of Non-State Governance Schemes: A Comparative Study of Forest Certification in Norway and Sweden', *International Environmental Agreements: Politics, Law and Economics* 2005-5(2), p. 125-49.

Gulbrandsen, L., *Transnational Environmental Governance: The Emergence and Effects of the Certification of Forests and Fisheries*, Cheltenham/Northampton: Edward Elgar 2010.

Gulbrandsen, L., 'Dynamic Governance Interactions: Evolutionary Effects of State Responses to Non-State Certification Programs', *Regulation & Governance* 2014-8(1), p. 74-92.

Helden, F. van, 'Introduction to FLEGT, VPAs and the EU Timber Regulation', in: G. Broekhoven, H. Savenije & S. von Scheliha (eds.), *Moving Forward with Forest Governance*, Wageningen: ETFRN, 2012, p. 99-100.

Huang, W., A. Wilkes, X. Sun & A. Terheggen, 'Who is Importing Forest Products from Africa to China? An Analysis of Implications for Initiatives to Enhance Legality and Sustainability', *Environmental Development and Sustainability* 2013-15(2), p. 339-354.

Humphries, S & K. Kainer, 'Local Perceptions of Forest Certification for Community-based Enterprises', *Forest Ecology and Management* 2006-235(1), p. 30-43.

Hysing, E., 'Governing without Government? The Private Governance of Forest Certification in Sweden', *Public Administration* 2009-87(2), p. 312-326.

Klooster, D., 'Environmental Certification of Forests: The Evolution of Environmental Governance in a Commodity Network', *Journal of Rural Studies* 2005-21(4), p. 403-417.

May, P., Forest certification in Brazil. *Forest certification in developing and transitional societies*, New Haven, Connecticut: Yale University School of Forestry and Environmental Studies 2005.

Meidinger, E., 'The Administrative Law of Global Private-Public Regulation: The Case of Forestry', *The European Journal of International Law* 2006-17(1), p. 47-87.

Muhtaman, D.R. & F.A. Prasetyo, 'Forest certification in Indonesia', in: B. Cashore, F. Gale, E. Meidinger & D. Newsom (eds.), *Confronting Sustainability: Forest Certification in Developing and Transitioning Countries*, Yale University Faculty of Environmental Studies Publication Series 2006, p. 33-68.

Liu Jing

Oliver, R., *EU Market Conditions for 'Verified Legal' and 'Verified Legal and Sustainable' Wood Products*, Prepared for the Timber Trade Federation and the Department for International Development by Forest Industries Intelligence, Settle 2009.

Overdevest, C., 'Comparing Forest Certification Schemes: the Case of Ratcheting Standards in the Forest Sector', *Socio-Economic Review* 2010-8(1), p. 47-76.

Overdevest, C. & J. Zeitlin, 'Constructing a Transnational Timber Legality Assurance Regime: Architecture, Accomplishments, Challenges', *Forest Policy and Economics* December 2013.

Overdevest, C. & J. Zeitlin, 'Assembling an Experimentalist Regime: Transnational Governance Interactions in the Forest Sector', *Regulation & Governance* 2014-8(1), p. 22-48.

Ozinga, S., *Footprints in the Forest: Current Practice and Future Challenges in Forest Certification 2004*, available at: www.fern.org/media/documents/document_1890_1900.pdf.

Pattberg, P., 'The Forest Stewardship Council: Risk and Potential of Private Forest Governance', *The Journal of Environmental Development* 2005-14(3), p. 356-374.

Singer, B., 'Putting the National back into Forest-related Policies: the International Forests Regime and National Policies in Brazil and Indonesia', *International Forestry Review* 2008-10(3), p. 523-537.

Smith, T.M., S.A.M. Murillo & B.M. Anderson, 'Implementing Sustainability in the Global Forest Sector: Toward the Convergence of Public and Private Forest Policy', in: E. Hansen, R. Panwar & R. Vlosky (eds.), *The Global Forest Sector: Changes, Practices, and Prospects*, Boca Raton: CRC Press 2013, p. 237-260.

Sun, X. & K. Canby, *Baseline Study 1, China: Overview of Forest Governance, Markets and Trade*, Forest Trends research for FLEGT Asia Regional Programme 2011.

Tacconi, L., 'Verification and Certification of Forest Products and Illegal Logging in Indonesia', in: L. Tacconi (ed.), *Illegal Logging: Law Enforcement, Livelihoods and the Timber Trade*, Earthscan, London, 2007, pp 251-74.

Tacconi, L., K. Obidzinski & F. Agung, *Learning lessons to promote forest certification and control illegal logging in Indonesia*, Cifor 2004.

Thiel, H., 'Forest Law Compliance within the Brazilian Forest Governance System', in: D. Brown et al. (eds.), *Legal Timber: Verification and Governance in the Forest Sector*, London: the Overseas Development Institute 2008, p. 115-124.

Verbruggen, P., 'Gorillas in the closet? Public and private actors in the enforcement of transnational private regulation', *Regulation & Governance* 2013-7(4), p. 512-532.

Vertinsky, I. & D. Zhou, 'Product and process certification: Systems, regulations and international marketing strategies', *International Marketing Review* 2000-17(3), p. 231-253.

Wells, A., 'Verification of Legal Compliance in Indonesia', in: D. Brown et al. (eds.), *Legal Timber: Verification and Governance in the Forest Sector*, London: the Overseas Development Institute 2008, p. 173-186.

Wiersum, K.F., G. Lescuyer, K.S. Nketiah & M. Wit, 'International forest governance regimes: reconciling concerns on timber legality and forest-based livelihoods', *Forest Policy and Economics* 2013-32, p. 1-5.

Wijaya, I.M., A. Rosyidie & T. Onimaru, 'The Implementation of Mandatory Forest Certification: A Case Study on Forest Concession in Indonesia', *Jurnal Perencanaan Wilayah Dan Kota B* 2014-2(3), p. 655-666.

Zhao, J., D. Xie, D. Wang & H. Deng, 'Current Status and Problems in Certification of Sustainable Forest Management in China', *Environmental Management* 2011-48(6), p. 1086-1094.