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Embracing Complexity: Meeting the Challenges of International Forest Governance

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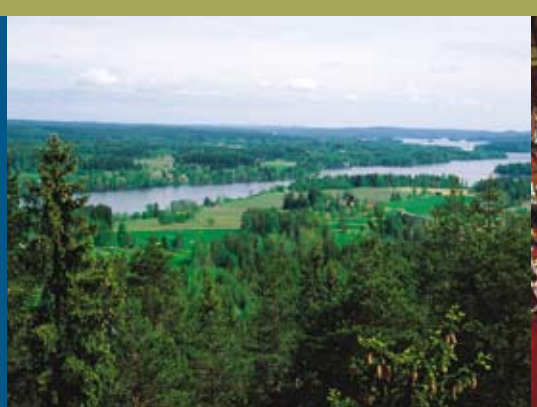

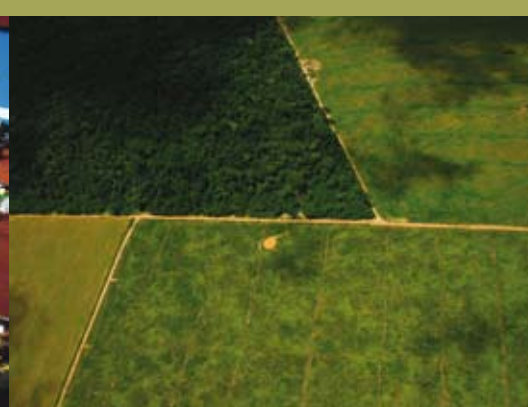

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EMBRACING COMPLEXITY: MEETING THE CHALLENGES OF INTERNATIONAL FOREST GOVERNANCE

A Global Assessment Report Prepared by the Global Forest Expert Panel on the International Forest Regime

Editors:

Jeremy Rayner, Panel Chair

Alexander Buck, IUFRO Executive Director

Pia Katila, Content Editor

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Preface

The present volume is the second in the series of reports commissioned by the Collaborative Partnership on Forests' Global Forest Expert Panels initiative. Following the highly successful report on Adaptation of Forests and People to Climate Change, presented to UNFF 8 in 2009, the members of the GFEP Steering Committee approved the topic of "the international forest regime" for a new panel in the fall of the same year. More than 30 experts in political science, policy studies, law and international relations agreed to take part and met for the first time in Vienna in December 2009. A subsequent meeting of the whole panel was held in Nairobi in July 2010 and smaller groups gathered in Singapore, New York and Washington DC. Every effort was made to draw panel members from around the world with different experiences and points of view. A similar effort pulled together a blue-ribbon team of reviewers from universities, research organizations, governments and international organizations whose careful scrutiny of the draft report resulted in the removal of many errors and a significant improvement in the clarity and direction of this document. Indispensable administrative support for the panel was provided by the IUFRO Secretariat under the direction of Alexander Buck. The report was language edited by Alastair Sarre and the whole editorial process overseen by Pia Katila. This is truly a collaborative effort and could not have been achieved without remarkable collegiality and teamwork. I would like to extend my deepest thanks to everyone involved, almost all of whom voluntarily took on what turned out to be a considerable burden in addition to their existing professional obligations.

The topic of the international forest regime is a complex one. At the heart of regime are a number of international organizations with different mandates and capacities, all of whom are rightly proud of their achievements in raising awareness of the threats to the world's forests and adopting instruments and programs designed to protect forest conditions and livelihoods. Nonetheless, there is an undeniable sense that the regime as a whole is failing. Rates of deforestation, though declining overall, show significant regional variations and remain "alarmingly high" according to the latest State of the Forests report by the United Nations Food and Agriculture Organization. Non-state actors are conspicuous by their absence in many of the key initiatives and have their own issue networks existing alongside the regime. Much is going on at local, national and regional levels that is not reflected in the regime's outputs. In short, the effect of the international forest regime is rather less than the sum of its many parts.

More than forty years ago, the distinguished philosopher and social scientist Donald Schoen wrote that "we must become able not only to transform our institutions in response to changing situations and requirements; we must invent and develop institutions which are 'learning systems', that is to say capable of bringing about their own continuing transformation." In seeking to understand what has gone wrong with international forest governance and how it can be put right, the panel has avoided taking positions on the various issues of instrument choice and organizational reform currently exercising the chief actors in the international forest regime. We have, instead, directed our efforts towards reconceiving the regime as a forest-focused learning system of the kind imagined by Schoen. It is my hope that those with the responsibility for forest governance at all levels will find this report, and its accompanying policy brief, a useful guide to the complexities of the regime as it currently stands and a source of inspiration for setting in motion the "continuing transformation" which embraces this complexity, turning it from source of weakness to a source of strength.

J*eremy Rayner*

Chair of the Expert Panel on
the International Forest Regime

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We acknowledge and also sincerely thank the reviewers of the full report and the various chapters whose comments have greatly improved the quality of this publication: Stephanie Caswell, Frank Biermann, Juergen Blaser, Gerard Buttoud, Katarina Eckerberg, Fred Gale, Jan Heino, A.A. Hezri, John Hudson, Maria Ivanova, Niels Elers Koch, Max Krott, John Palmer, Michael Pregernig, Ewald Rametsteiner, Ulrich Schraml, Harri Siiskonen, Markku Simula, Ilpo Tikkanen, Adam Wellstead and Willi Zimmermann.

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Furthermore, we would like to thank the GFEP Steering Committee for providing overall guidance and generous in-kind support: the International Union of Forest Research Organizations (IUFRO), the Food and Agriculture Organization of the United Nations (FAO), the Secretariat of the United Nations Forum on Forests (UNFF), the Secretariat of the Convention on Biological Diversity (CBD), the Center for International Forestry Research (CIFOR), and the World Agroforestry Centre (ICRAF). Our special thanks go to the IUFRO Secretariat for providing indispensable administrative and technical support to the work of the Panel. We are particularly grateful also to the Secretariat of the United Nations Forum on Forest, the United Nations Environment Programme, The World Bank, and the Lee Kuan Yew School of Public Policy, National University of Singapore for hosting expert meetings.

We are grateful for Seppo Oja for designing and preparing the lay out of this publication and for Alastair Sarre for language editing.

Jeremy Rayner	*Alexander Buck*	*Pia Katila*
Panel Chair	IUFRO Executive Director	Content Editor

Contents

Acronyms and abbreviations

A/R	Afforestation/Reforestation
ABS	Access and Benefit Sharing
ACTO	Amazon Cooperation Treaty Organization
AFP	Asia Forest Partnership
ASEAN	Association of Southeast Asian Nations
ATO	African Timber Organization
C&I	Criteria and Indicators
CBD	Convention on Biological Diversity
CBFP	Congo Basin Forest Partnership
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CIFOR	Center for International Forestry Research
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMESA	Common Market for Eastern and Southern Africa
COMIFAC	Central African Forest Commission
COP	Conference of the Parties
CPF	Collaborative Partnership on Forests
CSD	Commission on Sustainable Development
CSR	Corporate Social Responsibility
ECOSOC	United Nations Economic and Social Council
EFI	European Forest Institute
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FIP	Forest Investment Program
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement, Governance and Trade
FPIC	Free Prior and Informed Consent
FSC	Forest Stewardship Council
GATT	General Agreement on Tariffs and Trade
GBIF	Global Biodiversity Information Facility
GEF	Global Environment Facility
GFEP	Global Forest Expert Panel
GHG	Greenhouse Gases
GTZ	German Technical Cooperation
IBPES	Intergovernmental Platform on Biodiversity and Ecosystem Services
ICRAF	World Agroforestry Centre
IFF	Intergovernmental Forum on Forests
IIED	International Institute for Environment and Development
ILO	International Labor Organization
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IPF	Intergovernmental Panel on Forests
ISO	International Organization for Standardization
IUFRO	International Union of Forest Research Organizations
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature
LEI	Indonesian Ecolabelling Institute
LRTAP	Long-Range Transboundary Air Pollution
MCPFE	Ministerial Conference on the Protection of Forests in Europe
MoU	Memorandum of Understanding
MRV	Monitoring, Reporting and Verification
NBSAPs	National Biodiversity Strategies and Action Plans
NFP	National Forest Programmes
NGO	Non-Governmental Organization
NLBI	Non-Legally Binding Instrument on All Types of Forests
OECD	Organization for Economic Cooperation and Development
PEFC	Programme for the Endorsement of Forest Certification
PoW	Program of Work
PROFOR	Programme on Forests
REDD	Reducing Emissions from Deforestation and Forest Degradation
SADC	South African Development Community
SFI	Sustainable Forestry Initiative
SFM	Sustainable Forest Management
SLIMFs	Small and Low Intensity Managed Forests
SPS	The Agreement on the Application of Sanitary and Phytosanitary Measures
TBT	Technical Barriers to Trade
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UN-REDD programme	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
VPA	Voluntary Partnership Agreement
VPN	Virtual Policy Network
WBCSD	World Business Council for Sustainable Development
WCED	World Commission on Environment and Development
WRI	World Resources Institute
WTA	World Trade Agreement
WTO	World Trade Organization
WWF	World Wildlife Fund for Nature

1 Introduction

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1.1 Purpose of the report

In November 2009, the Global Forest Expert Panel (GFEP) Steering Committee established an expert panel on the international forest regime to provide a "scientific assessment of the current global forest regime and identify options for improving the effectiveness of the current regime." The GFEP Steering Committee is composed of representatives from the Collaborative Partnership on Forests (CPF), a network of 14 international organisations and secretariats with substantial programmes relating to forests. The CPF's mission is to promote the management, conservation and sustainable development of all types of forest and to strengthen long-term political commitment to this end.

Specifically, the present assessment is intended to contribute to:

- International forest deliberations and international forest related processes
- The improvement of coordination among political actors, policy instruments and institutions
- International Year of Forests 2011 by raising awareness about the role of international instruments and institutions affecting forests

The report and its accompanying policy brief will provide an overview of the complex and diverse elements that currently make up the global forest governance arrangements; will identify and analyse the core components of these arrangements; and propose options for dealing with complexity and improving the effective implementation of forest governance at global, regional, national and sub-national levels.

Following the mandate of the CPF Global Forest Expert Panels, this assessment is based on existing scientific knowledge. It represents the Expert Panel's understanding of the best available scientific literature. In the case of global forest governance, that literature is, of course, largely drawn from the social sciences, especially political science, law, international relations and policy studies.

1.2 Context for the assessment

1.2.1 Evolution of international forest governance

The 1980's saw growing international concern about the destruction of tropical forests due to shifting agriculture, cattle ranching and over-exploitation for timber production. At the same time, attention was also focused on the degradation and loss of temperate and boreal forests due to poor forest management and, in some cases, various forms of pollution from intensive agriculture, urban and industrial development. There was a new awareness of the vital importance of forests as renewable sources of a wide range of goods and services at local, national and global levels, including food, medicine, fuel, shelter, clean water, soil stabilisation, flood control, and livelihood support. Forests are home to 70% of the earth's known terrestrial plant and animal species and many have been identified as biodiversity "hot spots". Forests are also critical factors in climate change both as sources and sinks of CO_2 and as ecosystems that are vulnerable to climate change.

The World Bank estimates that more than 1.6 billion people around the world depend on forests for subsistence, livelihood and employment. This contribution of forests to human well-being and "sustainable development" first received global recognition in June 1992 at the United Nations Conference on Sustainable Development (UNCED) in Rio de Janeiro when leaders adopted Chapter 11 of Agenda 21 on combating deforestation and the Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (the Forest Principles). These documents

In addition to the work of the authors and the contributions of the Expert Panel, this chapter has greatly benefited from comments by Stephanie Caswell

represented the first global consensus on the multiple benefits provided by forests, national policies needed to maintain those benefits for present and future generations, and international cooperation needed to support national efforts.

In 1995, the Commission on Sustainable Development (CSD), which had been created in 1992 under the United Nations Economic and Social Council (ECOSOC) to ensure effective follow up to UNCED, established the Intergovernmental Panel on Forests (IPF) with a time limited mandate to carry forward the Forest Principles. In 1997, the CSD established the Intergovernmental Forum on Forests (IFF), also with a time limited mandate, to continue the work of IPF. The combined output of these two ad hoc processes consisted of more than 280 proposals for action to enhance the "management, conservation and sustainable development of all types of forests."

In 2000, ECOSOC established the United Nations Forum on Forests (UNFF) as a subsidiary body with universal membership to facilitate national efforts to implement sustainable forest management (SFM) and enhance coordination among international instruments, organisations and institutions with significant forest-related mandates. Shortly thereafter the CPF was established to assist the work of the UNFF. In 2007, the UNFF and the United Nations General Assembly adopted the Non-legally Binding Instrument on All Types of Forests (NLBI). The NLBI creates a framework for national action and international cooperation to enhance implementation of SFM and the achievement of the four global objectives on forests endorsed by the UNFF in 2006. In 2015, the UNFF will review the effectiveness of the NLBI, as well as other efforts to achieve the four global objectives and to implement SFM.

1.2.2 The debate on a legally binding forest agreement and the approach of this assessment

The NLBI stands as the main output of state-centred efforts to create a forests-focused international regime. Ever since the UNCED preparatory process, the issue of whether or not to negotiate a legally binding global forest convention has been a matter of concern to the international forest policy dialogue and United Nations (UN) diplomacy. At Rio, the views of countries were divided, with developed (OECD) countries mainly favoring a convention and developing countries (the G77 and China) opposing one. There were many reasons for the united position of developing countries. At the core was the view that developed countries were pressing for a convention as a way to influence the management of tropical forests, while refusing to acknowledge the problems in their own forests. The compromise was the adoption of the non-binding Forest Principles which established the notion, still found in the NLBI, that global forest governance concerns "all types of forests".

The forest convention debate resumed at the CSD meeting in 1995 and was taken up once again at the fourth and final session of the IFF in 2000. Country positions shifted at both meetings, with many developed and developing countries now in favor of a convention. However key countries, including Brazil and other members of the Amazon Cooperation Treaty Organizations (ACTO) and the United States remained skeptical of the benefits of a convention. They were joined by non-governmental organisations (NGOs), who feared that negotiations could only succeed by leveling down forest practices.

The compromise was the creation of the UNFF with a mandate that included a five-year review. The review in 2005–2006 again found no consensus to negotiate a "legally binding agreement on forests", with more countries, including African and a number of European Union countries, moving away from the idea of convention. Opponents questioned the ability of a convention to generate significant "new and additional financial resources" for developing countries or raise standards of forest management worldwide. Instead, the NLBI was concluded in 2007 and a formal process to examine financing for forests was launched in 2008.

While the issue of a legally binding convention may be raised again in the 2015 UNFF review, this report expresses no opinion on either the likelihood or the desirability of a forest treaty. As already noted, the panel's chief concern is with developments that are already taking place and the challenge of working with the existing complex and comprehensive governance arrangements that could ultimately improve forest conditions and livelihoods. While the forest policy community has, until recently, devoted so much of its efforts to failed treaty negotiation, other forest-related developments have been proceeding on largely parallel tracks and now challenge the very existence of forests-focused governance.

In the run up to UNCED, for example, the text of two new conventions were developed: the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC). While these conventions were negotiated outside the UNCED preparatory process, they were opened for signature at Rio and subsequently ratified by sufficient numbers of signatories to create binding international law. Over time, the conferences of the parties to these conventions have increasing taken up forest-related issues in the context of their own respective mandates. As chapters 2 and 3 of this report will explain in greater detail, the CBD and the UNFCCC are by no means the only forest-related

treaties; however, they are two of the most important and their development illustrates the current challenge to forests-focused governance.

1.2.3 Forest-related treaties, complexity and fragmentation

The CBD and its work is premised on three core objectives that relate to forest governance: the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. These objectives overlap with the concept of sustainable forest management as put forward by the NLBI and are reflected in the Global Objectives on Forests.

In addition, specific provisions of the CBD have a direct bearing on the question of forest governance. For example, Article 8(j) requests Parties to respect, preserve and maintain traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biodiversity and promote their broader application with the approval of the holders of such knowledge. This article is complemented by Article 10(c), which asks Parties to protect and encourage the customary use of biological resources through traditional cultural practices that meet conservation or sustainable use requirements. Lastly, Article 15 is also relevant as it sets outs modalities for the fair and equitable sharing of benefits arising out of the utilisation of genetic resources. These issues of benefit sharing and the participation of indigenous and local communities often play a central role in forest governance.

As a result of this close connection, sustainable forest management considerations have spilled over into CBD. At the same time, however, spillovers have taken place and are likely to continue to take place in the other direction, especially with respect to the ongoing negotiations for the elaboration of an international regime on access and benefit sharing (ABS). This regime will likely have direct bearing on how forest genetic resources are utilised and how benefits derived from such use are shared. The success of international forest governance is thus more than ever contingent on ensuring that these various international instruments constitute a comprehensive and coherent framework that achieves goals such as ABS without losing sight of the forests themselves.

The Conference of the Parties (COP) to the CBD has certainly taken steps to promote the conservation of forest biodiversity, placing the theme of forest biodiversity at the forefront of its agenda. As early as 1996, COP 2, aware of the discussions taking place at the IPF, developed their first work programme on forest biological diversity. In 1998, COP 3 went further and adopted forest protection and conservation as a priority theme for future activities and also established a technical expert group on forest biological diversity.

This was followed by Decision VI/22 of COP 6 in 2002 which instituted and articulated the thematic components of an expanded programme of work on forest biological diversity. The expanded program of work contains an extensive set of goals, objectives and activities for the conservation of forest biodiversity, the sustainable use of its components and the fair and equitable sharing of benefits arising from the utilisation of forest genetic resources. Furthermore, it explicitly recognises the complementary roles of the CBD and UNFF in stemming the loss of forest biodiversity and recognises that collaboration will promote beneficial synergies in guiding immediate and effective action by governments and other international bodies.

Many of the organisations that form the core of the international forest regime, whose work is analysed in chapter 3 of the report, recognise the need for coordination. In particular, the Secretariat to the CBD signed a memorandum of understanding (MoU) with the UNFF for a programme of work to address biodiversity in forests. The agreement followed UNFF Resolution 8/1, which requested the Secretariat to explore a format and opportunities for collaboration and cooperation with the secretariats of the Rio Conventions and develop joint activities related to sustainable forest management, the Global Objectives on Forests and the NLBI. Nonetheless, the central relevance of the CBD and its protocol to forest governance is undeniable, creating complex new linkages between institutions and actors.

Climate change represents another critical strand in this web of linkages constituting the system of global forest governance. Until recently, political discussions about climate change paid scant attention to forests. Most policymakers viewed emissions resulting from forest loss as hard to measure, monitor and control. They felt that any benefit from efforts to reduce deforestation would be short-lived (the problem of 'permanence') and suffer considerable 'leakage' (i.e. less carbon emissions in one place would lead to more emissions somewhere else). Many worried that focusing on tropical deforestation would reduce pressure on richer countries to lower their emissions. There were fears that including forests in trading schemes would flood the carbon markets and make other mitigation measures unprofitable. As a result, it comes as no surprise that the Kyoto Protocol provided few incentives for afforestation and reforestation and none to maintain existing forests (Eliasch 2008).

Both the Stern Report (Stern 2006) and the Intergovernmental Panel of Climate Change (IPCC) report (IPCC 2007) contributed to shifting political

attention and the international forest agenda toward the notion that forests will play a key role in any cost-effective climate change mitigation arrangement. By the end of 2008, the Eliasch Review reinforced the central proposition that urgent action to tackle the loss of forests worldwide needs to be a central part of any future international deal on climate change (Eliasch 2008). The Review claimed that a deal that provides international forest financing not only reduces carbon emissions significantly, but also benefits developing countries, supports poverty reduction and helps preserve biodiversity and other forest services (Hoogeveen and Verkooijen 2010).

However, given the scale of emissions from forests, forest mitigation measures pose a daunting challenge. As UN Secretary General Ban Ki-Moon has stated:

"Climate Change cannot be won without the world's forests. This, however, will be a complex and challenging feat in terms of setting up incentive structures and implementation mechanisms, and will require a long-term commitment. But nonetheless, it is one of the best large-scale investments we can make against climate change that could result in an equally large dividend" (Norway 2008).

In UNFCCC negotiations, countries are working towards a comprehensive, legally binding, global agreement to tackle climate change. Reducing emissions from deforestation and forest degradation in developing countries (REDD+) has emerged as a potentially crucial instrument to pursue the ultimate objectives of UNFCCC in holding the increase in global temperature rise below 2 degrees Celsius above pre-industrial levels. REDD+ also holds the potential to reduce greenhouse gas emissions, improve the livelihoods of forest-dependent people, to conserve biodiversity and to inject substantial new funding into forest management. Although it is widely noted that to implement REDD+ within the framework of sustainable development strategies will require broad institutional and governance reforms, it remains to be seen whether this transformational change in the sector will be initiated. More to the point of this Report, it is still unclear how REDD+ is going to be coordinated with the other forest related initiatives to achieve forests-focused goals. Forests certainly are a means of storing carbon and a pool of genetic resources and a source of livelihoods but they are much more than this. Coordinating these goals – along with many others – while remaining clearly focused on this 'more' is the challenge of forest governance

1.3 Understanding international forest governance

1.3.1 Regimes and regime theory

The original focus of this assessment was the international forest regime. A "regime" is a set of governance arrangements. The term is a commonly-used one in the social sciences, in particular in political science, and is applied at various spatial scales from the local level to the international. In contrast, "governance" is the broader term, denoting any effort to coordinate human action towards goals. "Regime" is the narrower term, used to characterise a particular means or mode of coordination

At the local level, 'commons' regimes, sometimes called 'common property regimes', are terms developed to capture the set of agreed upon rules and arrangements that govern access to and the use of natural resources, such as crops, fish or forests, for a particular community (Ostrom 1990). Local commons regimes are designed to coordinate resource use in an effort to eliminate problems such as 'free-ridership' leading to the degradation of the resource.

At the national level the term 'regime' is traditionally used to denote a particular type of government such as military regime, socialist regime, and democratic regime. While this usage has been common in political science since Aristotle, it is a source of confusion in discussion of forest governance, where mention of a 'regime' is sometimes taken to mean coercive coordination. This is not the sense of regime used in this report.

The development and application of the regime concept to *international* affairs by international relations scholars dates only from the mid-1970s. In 1975 John Ruggie defined an international regime as "a set of mutual expectations, rules and regulations, plans, organisational energies and financial commitments, which have been accepted by a group of states" (Ruggie 1975: 570). Building on Ruggie's approach, Oran Young later defined international regimes as "social institutions governing the actions of those interested in specifiable activities (or meaningful sets of activities) …regimes are social structures" (Young 1980: 332).

However the most often-cited definition of an international regime is one put forward by the Stanford scholar Stephen Krasner in the early 1980s when he argued that international regimes are "sets of implicit or explicit principles, norms, rules and decision making procedures around which actors' expectations converge in a given area of international relations" (Krasner 1982: 186). The Krasner definition formed the basis of a collection of papers on international regimes published in the journal *International Organization* (guest edited by Krasner). Ruggie's definition is explicit that the members of

an *international regime* are states (i.e. governments) and only states. But later definitions, including that of Krasner, were broader, stressing that regimes are agreed to and constructed by a range of 'actors', thus admitting non-state actors such as business, non-governmental organisations (NGOs) and private financial institutions.

Despite the emergence of this broader notion of regime, discussions based on the Krasner definition tended to refer almost exclusively to collective arrangements agreed by states, such as the binding General Agreement on Tariffs and Trade/World Trade Organization (GATT/WTO) international trade regime or the non-binding G7/G8/G20 regime for international finance (for example: Breitmeier et al. 2006; Dimitrov 2003; Downie 2005; Downs 2000; Hansenclever et al. 1997; Helm and Sprinz 2000; Miles et al. 2002; Rittberger 1993; Vogler 2000; Young 1999). There was also often an assumption among regime theorists that an international regime requires a multilateral legal framework overseen by an institution of some sort, such as an international organisation or treaty or a conference of parties. For example, the Vienna Convention on Ozone Depletion of 1985 and Montreal Protocol to the Convention of 1987 and are usually considered synonymous with the 'international ozone regime'. The CBD, whose relevance to forest governance has already been noted, is often used to denote the 'international biodiversity regime', even though there are other binding agreements that address biodiversity, including the Convention on International Trade in Endangered Species of Flora and Fauna and the Ramsar Convention on Wetlands of International Importance.

Thus, in the regime theory literature since Krasner, there has been a distinct tendency to picture an international regime as a state-centric form of international cooperation grounded in 'hard' or binding international law, such as a convention, protocol, agreement or other legally binding instrument. On this reading of regimes, soft law alone is insufficient to constitute a regime and non-state actors have tended to be relegated to the role of 'stakeholders' to be consulted but hardly central players. This has led some observers to describe the international arrangement on forests as a 'non-regime' - defined as "transnational policy arenas characterised by the absence of multilateral agreements for policy coordination among states" (Dimitrov et al. 2007: 231).

In the opinion of this panel, the current framework for international forest governance is more accurately described as a 'regime complex': a set of specialised regimes and other governance arrangements more or less loosely linked together, sometimes mutually reinforcing but at other times overlapping and conflicting (Keohane and Victor 2010). A regime complex exists somewhere towards the middle of a spectrum between a comprehensive regime based on a single legally-binding instrument at one end and a very loose and barely coordinated set of governance arrangements at the other (Alter and Meunier 2006; Raustiala and Victor 2004).

The extensive debate over the nature of international regimes is by no means merely academic. The debate grew out of a desire to understand and explain the development of multilateral governance arrangements over the last 30 years. Its conclusion that there are few, if any, comprehensive hard law regimes in the narrowest sense of the original regime concept is a very important one for understanding forest governance. If regime complexes are the most common type of governance arrangement, then the international forest regime complex is not so different from the other multilateral regime complexes. Attention turns to meeting the particular challenges of international forest governance rather than seeking to make the regime conform to an ideal that turns out to be largely imaginary.

1.3.2 Emerging views on an international forest regime complex

By the mid-1990's a view of an international forest regime complex had emerged that allows for international policy dialogue and cooperation on an issue to take place between a variety of state and non-state actors in the absence of a single multilateral legal agreement. This view found support from international forest policy experts and international environmental lawyers. In 1995, the same year that the IPF was created, for example, Richard Tarasofsky argued that an international regime on forests existed, comprising international and regional legal instruments and non-legally binding soft law ones. Tarasofsky later defined the international forest regime as "the totality of norms, rules, standards and procedures, as expressed in international institutions and other acts" (Tarasofsky 1999: 3). At that time, he identified three options for the future development of the regime: negotiating a convention on forests; negotiating a protocol on forests to the Convention on Biological Diversity; and making better use of existing instruments (Tarasofsky 1995).

In 1997 the existence of an international forest regime complex along these lines was recognised by the European Commission, in the context of a report by the European Forest Institute on how the regime could be further strengthened. The authors of this report argued that 'legal regime' in this context should not be used to imply a need for a specific legal instrument, but rather should be understood as encompassing the sum total of international instruments and institutions that create the framework for international action" (Glück et al. 1997:9).

Over a decade ago, David Humphreys argued that the international forest regime was founded upon three broad sources:

a) the growing body of soft international law focused on forests;
b) hard international legal instruments with a forest-related mandate (such as the CBD and UNFCCC); and
c) voluntary private sector regulation, such as the Forest Stewardship Council principles for forest management (Humphreys 1999).

As the access and benefit sharing and REDD+ developments clearly demonstrate, the international forest regime complex is a dynamic rather than a static entity. It is constantly evolving as new international declarations and instruments are agreed, often of the forest-related rather than the forest-focused kind. However, what has really made an accurate characterisation of the international forest regime complex so much more difficult has been the development already noted by Humphreys in connection with voluntary private sector regulation. A key driver of change is the growing acceptance of the view that forest problems cannot be addressed purely by governmental and intergovernmental agreements. While the role that states play through intergovernmental organisations remains an important component of the forest regime, the regime complex now includes non-governmental actors, both for-profit and not-for-profit. A state-centric definition of international regimes is increasing questioned, both in the international relations literature (Betsill and Corell 2007; Cutler 2002; Falkner 2003; Humphreys 1996; Joyner 2005; McCormick 1999; O'Neill 2009) and in international institutions themselves. The role of non-nation state actors in international politics and policy is the starting point for discussions of a broader concept of forest governance.

Beyond the International Regime Complex: the evolving role of non-government actors

Beginning with UNCED, there has been a recognition that problems and issues related to sustainable development, including forest issues, cannot be addressed solely by governments through intergovernmental agreements, and that non-government actors, both for-profit and not-for-profit, have a vital role to play other than as sources of advice and legitimation for state-led processes. The growing significance of policy coordination at a global level by actors without formal authority to do so is captured by the term 'governance´'. Governance is conducted by international organisations, but also by "global social movements, NGOs, transnational scientific networks, business organisations, multinational corporations and other forms of private authority" (Okereke et al. 2009: 60). As such, the actions of NGOs in global governance parallels similar developments at the level of regions and states, where the practice of governing on the basis of hierarchical authority is often observed existing side by side with new forms of coordination. Significantly, such new forms of coordination or 'governance arrangements' are very often found in response to challenges arising from the complexities of environment and sustainable development (Lemos and Agrawal 2006) and have been observed in forestry-related contexts at national and subnational levels (Howlett et al. 2009).

Section III of Agenda 21 states that "one of the fundamental prerequisites for the achievement of sustainable development is broad public participation in decision-making", and that "the commitment and genuine involvement of all social groups" is "critical to the effective implementation of the objectives, policies, and mechanisms agreed to by governments in all programme areas of Agenda 21." The CSD, further enshrined the important role of major groups in intergovernmental deliberations and as such represented a significant change in the attitude of the United Nations system to stakeholder participation in intergovernmental policy discussions. Since the CSD's creation in 1992, CSD meetings have provided innovative spaces for the participation of the range of non-government actors with the overall purpose of informing the Commission's decision-making processes.

The IPF/IFF proposals for action reflected this recognition of the important contribution of a range of stakeholders in sustainable forest management, including forest owners and managers and forest dependent local and indigenous communities. Many countries participating in criteria and indicators processes have operationalised this recognition by involving national and subnational stakeholders in criteria and indicator (C&I) implementation. The UNFF has followed the CSD model of inclusiveness interacting with major groups by convening multi-stakeholder dialogues with governments, organising panels on key issues to major groups, supporting side events and providing financial support to participants from developing and transition countries.

In addition to efforts at broader inclusion in intergovernmental processes, public-private partnerships and corporate-NGO partnerships have become common in the forests arena. Inclusion has generated funding and capacity for policy implementation on the ground and supported moves towards decentralised implementation of SFM. For example, the Congo Basin Forest Partnership (CBFP) and the Asia Forest Partnership (AFP) were both launched at the World Summit on Sustainable Development in Johannesburg in 2002, which gave special attention

Box 1.1 Key terms

Governance: any effort to coordinate human action towards goals. In the common distinction between government and governance, the latter is usually taken to refer specifically to coordination mechanisms that do not rest on the authority and sanctions possessed by states (Stoker 1998), but the report uses "governance" in the broadest sense of coordination.

International regime: a set of governance arrangements for an issue area usually based on some form of agreement by states. The standard definition is provided by Krasner (1982): "sets of implicit or explicit principles, norms, rules and decision making procedures around which actors' expectations converge in a given area of international relations". An international regime is thus much more than just a set of organisations and could in principle exist without any formal organisations at all.

Regime complex: a set of specialized regimes and other governance arrangements that are more or less loosely linked together, sometimes mutually reinforcing but at other times overlapping and conflicting (Keohane and Victor 2010).

Institutions: the rules of the game in society or, more formally, are the humanly devised constraints that shape human interaction (North 1990:3).

Organisations: very distinctive institutions with formal rules of membership and practice, embedded in the larger context of institutions as rules and expectations. For example, the institutionalised behaviour of seeking to conclude international agreements to solve common problems rather than acting unilaterally has created a number of organisations, most notably those that make up the UN system. Institutions in the broad sense used here are thus to be distinguished from the much narrower sense of institutions as organizations.

to the roles of public-private partnerships in promoting sustainable development. The CBFP, currently facilitated by Germany, has generated significant additional funding to support forest conservation and sustainable forest based livelihoods in the region.

A number of regional and international initiatives have also emerged that are focused on grass roots and community approaches to engaging local people in addressing forest issues. These include, inter alia, Forest Connect (IIED, FAO, PROFOR, NFP Facility), Growing Forest Partnerships (FAO, IUCN, World Bank, IIED), Rights and Resources Initiative, Responsible Asia Forestry and Trade, and The Forests Dialogue (in partnership cooperation with UNFF). Existing grass roots initiatives are also strengthening their international engagement, especially in the REDD context, including the Asia-Pacific Center for People and Forests, Coordinating Association of Indigenous and Community Agroforestry in Central America, Global Alliance of Community Forestry and International Family Forestry Alliance, to name only a few.

However, the introduction of new actors and new ideas, while important, can often obscure the challenges that a more participatory kind of global forest governance entails. Governance as coordination necessarily involves institutions. Participatory governance relationships are being institutionalised in a variety of ways, creating new structures, such as transnational policy networks and partnerships. While the blurring of boundaries between public and private in these networks and partnerships has raised concerns about legitimacy, new kinds of 'entanglements' (Porter 2009) are constantly being generated and subsequently institutionalised through rule-making and the development of norms and expectations. The private rule making found in the various certification schemes for sustainably-produced forest products is only the tip of the iceberg in this respect.

Thus, while it may have been possible in the past to conduct an assessment of the international forest regime by focusing solely on the actors, institutions and instruments found at the core of the regime complex (Tarasofsky 1999), a broader kind of assessment is now required. This assessment seeks to accommodate the rapidly expanding and increasingly diverse set of actors, institutions and ideas seeking to coordinate action with respect to forests. While, in the technical language of political science, it may still be appropriate to refer to them as components of the international forest regime complex, we use the more accessible phrase 'international forest governance'. The definitions of the key concepts used in this report are given in Box 1.1.

1.3.3 Expert panel's view on international forest governance

The panel takes the view that the current set of international forest governance arrangements is best seen as a complex hybrid mix of international law, soft law, and non-government performance-based measures. Some are forest focused and others forest related. As discussed in chapter 2, these arrangements are now much more numerous and more complex than those considered in previous reviews and assessments. They include:

a) *Non-legally binding* declarations, principles, statements, decisions, resolutions and other instruments reflecting political commitments focused on forests, including the NLBI, other decisions of the UNFF, IPF/IFF proposals for action, the Forest Principles and Chapter 11 of Agenda 21
b) *Legally binding* conventions, agreements and other instruments with significant forest-related provisions, including the CBD, UNFCCC, UNCCD, CITES, Ramsar, as well as legally binding agreements and other instruments with the potential to influence forests indirectly, such as LRTAP
c) *Treaty-based organisations and institutions* with significant forest-related mandates and programs or with the potential to affect forests, including CIFOR, FAO, ICRAF, ITTO, World Bank, GEF, NFP Facility and WTO
d) *Other relevant organisations, institutions, networks and processes*, including GBIF, IUCN, IUFRO, UNEP and UNDP
e) Performance-based international initiatives of *NGOs and other Major Groups*, including international certification schemes, such as FSC, Smartwood, and PEFC and industry codes of conduct, such as the work of WBCSD
f) *Regional* organisations, institutions, instruments, processes, initiatives and networks, including ACTO, African Forest Forum, AFP, ASEAN, ATO, SADC, CBFP, Forest Europe, EFI, regional C&I initiatives, regional FLEG processes, FLEGT and regional certification programmes such as SFI
g) *New 'entanglements'* – clubs of states, learning platforms and collaborations, including REDD+ partnerships, round tables, IBPES.

1.4 The challenge of complexity: why international forest governance matters

The report's main message is that global forest governance matters. It matters now because, while there are valuable new initiatives in play with real potential to sustain the world's forests, many, if not most of these initiatives will have a forest impact but not a forest focus. Whether their focus is actually climate change mitigation, human development, biodiversity conservation or trade, they require a more effective approach to coordination if they are ultimately to improve forest conditions and livelihoods as well as achieve their own goals. These developments will continue to take place and the global forest policy community does not have the luxury of waiting to address the resulting governance challenges in its own time.

Often, of course, governance problems are identified at national and subnational levels in the context of 'good governance'. In many developing countries, for examples, the distribution of rights to forestlands and resources is unclear and the laws governing forest use may be incomplete and poorly enforced. The report argues that the establishment of institutions and decision-making processes that are widely accepted as just and legitimate is a necessary condition to the solution of these problems. International forest governance, by developing consensus about the institutional and procedural measures necessary to improve forest conditions and livelihoods is a key part of this process. For example, the desire by an increasing number of diverse stakeholders to have their voices heard before outcomes are regarded as legitimate is both endorsed and given practical expression in international forest governance. International forest governance contributes to the setting of global goals that define key forest problems as worthy of attention and provides a number of procedures and venues for learning about the appropriate choice of policy instruments to solve them. An important feature of is often complex governance is the 'spillover' effect among its components, whereby the objectives, principles and decisions elaborated in one international instrument may subsequently be expressed in later international instruments.

Nonetheless, the complexity of forest problems rules out simple governance solutions. The international forest policy community has pursued a number of these 'quick fixes' over the last two decades with equally disappointing results. This report will argue that the immediate effect of the developments described in the previous section has been to intensify the value conflicts generated by an increasingly diverse group of stakeholders making it more difficult to achieve agreement on either goals or the most appropriate means to achieve them. This kind of complexity generates the familiar phenomenon of wicked problems. Emerging "at the juncture where goal-formulation, problem definition and equity issues meet" (Rittel and Webber 1973: 156), wicked problems are open ended, defying efforts to delineate their boundaries and preventing disaggregation into a series of less complex and more easily manageable components (Ludwig 2001; Nie 2003). Current trends suggest that forests are increasingly likely to be found at the intersection of an ever-more-complex web of cross cutting issues. These complex interlinkages will likely persist and become even more complex over time (Hoogeveen and Verkooijen 2010). The wicked problems of international forest governance thus demand that we embrace complexity rather than attempt to simplify and disaggregate.

With the goal of embracing complexity in mind, the report is organised into six chapters:

Chapter 2 maps the core actors, objectives, decisions and priorities of international forest governance by using a framework of six generic environmental and socio-economic themes, and discusses the potential for constructive and destructive interplay among regime components.

Chapter 3 identifies and discusses the core components of the international forest regime, and assesses their consistency and compatibility.

Chapter 4 reviews and analyses the main discourses that shape forest issues and policies by distinguishing between three forest-related types of discourses: meta, regulatory and forest discourses.

Chapter 5 explores the relationship between forest sustainability and forest management, focusing on the emergence of sustainable forest management and the obstacles that have arisen in defining and implementing SFM.

Chapter 6 assesses the level of integration exhibited by the current governance arrangements and explores ways to manage an intrinsically fragmented set of arrangements through multi-level governance approaches.

Chapter 7 examines the pathways through which international forest governance affects national and sub-national policies and actions and the options for promoting international forest governance goals.

Chapter 8 draws on the main points, messages and conclusions from previous chapters to identify measures and options for improving the effectiveness of the current international forest regime.

The challenge that this report seeks to address is how to embrace the complexity and richness of the international forest regime, especially its multi-level aspects, without encouraging the worst effects of fragmented governance: ambiguity, overlap, duplication and inefficiency. The report focuses particularly on the potential for positive interactions between key elements of the existing global forest governance architecture without adding either new elements or attempting over-ambitious plans for greater integration among the parts. Our proposals recognise the urgency of the need to create forest focused governance arrangements that include within their scope the full range of actors and institutions with the potential to solve forest problems. We call this all-round forest governance approach 'Forests+'.

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2 Mapping the core actors and issues defining international forest governance

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Abstract: This chapter maps the core actors and issues defining international forest governance across a landscape of contemporary social and environmental challenges. The existence of multiple competing frameworks for charting this landscape highlight the politically contested nature of forest conservation and use. In order to avoid the risk of bias by adopting one of these pre-existing frameworks, the analysis is conducted using six generic environmental and socio-economic themes. The mapping exercise reveals that the involvement of diverse public and private actors both within and outside the forest sector and within and outside formal government negotiations, at both regional and global scales, has enabled a relatively comprehensive set of aspirational goals to emerge. However, conflicting actor interests and values continue to constrain the translation of these goals into coordinated mandates for on-the-ground action. The integration of forests into the international climate regime is a potential 'win–win' solution to cross-sectoral forest-related challenges because it enables the establishment of a global system of economic incentives tied to emissions reductions. However, attempts to operationalise these incentives reveal familiar, ongoing conflicts over the environmental and social valuation of forests. Regional and non-governmental experimentation may prove vital to overcoming these longstanding barriers to global-scale coordinated action on forests.

Keywords: Forest, climate, international, governance, biodiversity, social welfare, deforestation, REDD.

2.1. Introduction

This chapter provides a broad overview or 'map' of the key actors and issues that currently define international forest governance. Its purpose is threefold. First, it situates forest governance within the broader landscape of bio-physical and socio-economic problems of international concern. Second, it identifies the range of key actors who are instrumental in placing these issues on international agendas and in framing and contesting responses. Third, it assesses the comprehensiveness of the goals and frameworks established thus far through international agreement and the lessons that can be learned about the role of diverse actors in addressing the full scope of international forest-related challenges.

The chapter is organised as follows. Section 2.2 discusses three perspectives that might be used to identify key international actors. Sections 2.3 and 2.4 introduce and apply a thematic framework for assessing the core environmental, social and economic forest-related goals articulated in global-scale agreements and the actors most involved in placing these goals on the global agenda. Section 2.5 assesses the role of regional and international criteria and indicator processes, and forest certification, as forums exclusively focused on the definition and monitoring of sustainable forest management (SFM). Section 2.6 discusses regional processes in Africa, Asia-Pacific, Europe and Latin America and their interaction with global-scale agendas. The chapter concludes with a summary of key findings.

As echoed in the title of this report, the sheer complexity of international forest governance precludes an exhaustive analysis of all potentially relevant international goal-setting activities. We encourage readers interested in more in-depth coverage of specific substantive issues to consult the primary and secondary sources cited in the text. In addition, Appendix 1 provides a list and brief description of key global, regional and non-state international forest-related instruments. Most importantly, we encourage the full range of concerned stakeholders to engage in analyses of the kind presented in this chapter in order to facilitate the multi-actor, multi-scale and cross-sectoral learning that is essential for addressing contemporary forest-related challenges.

2.2 Defining the key actors

A vast range of actors is involved directly and/or indirectly in international forest governance, and a variety of conceptual frameworks may be used to understand their various roles. A *realist*, 'state-centric' framework (e.g. Bull 1977) focuses on the actions of national governments as the entities empowered to make decisions within formal intergovernmental negotiations. This perspective highlights power struggles among nations in which actors negotiate to maintain or improve the advantage of their countries relative to other countries.

In contrast, a *transgovernmentalism* perspective (Slaughter 2004) draws attention to the various ministries that attend forest-related intergovernmental forums and their differing priorities and objectives. Within the United Nations Forum on Forests (UNFF), for example, some delegations are led by forestry departments, some by foreign offices, some by trade ministries and some by United Nations missions. According to a transgovernmentalism view, there is an international forest policy community that transcends national boundaries and includes other actors, such as scientists and other experts. It draws attention to the possible conflicts that may emerge between international forest-related processes and intergovernmental organisations such as the World Trade Organisation (WTO).

A *pluralist* view highlights the role of different stakeholder groups, including local community groups, indigenous peoples, forest owners, timber companies, the retail sector, farmers and other actors. It encompasses both governmental and non-governmental organisations, including hybrid organisations such as the International Union for Conservation of Nature (IUCN), entirely non-governmental organisations such as the World Wide Fund for Nature (WWF), the Forest Peoples Programme and Global Witness, universities, and research institutes such as the Center for International Forest Research (CIFOR). It also considers cross-organisational partnerships such as the Collaborative Partnership on Forests (CPF) and the influence of participating actors from international development and financial institutions such as the Food and Agriculture Organization of the United Nations (FAO) and the World Bank. It also takes into account the political dynamics that led many non-governmental organisations (NGOs) to jointly create the Forest Stewardship Council (FSC) as the first global certification scheme.

Staff and personnel may move among the various actors involved in forest governance. Often experts and advisors are invited to serve on national delegations. It is not uncommon for delegations to include trade advisors from business, conservation advisors from environmental NGOs, and policy advisors from the university sector. Delegations may be subject, therefore, to multiple influences, both within and outside government. Within forest-related intergovernmental organisations, various caucus groups have emerged who undertake negotiations as blocs; they include the Group of 77 Developing Countries (G77) + China at the UNFF and the Like Minded Megadiverse Countries at the Convention on Biological Diversity (CBD). The European Union (EU) acts as a *sui generis* actor, the sole regional economic integration organisation in the United Nations system, with political authority divided between the Presidency (for issues that are the subject of member state competence) and the European Commission (for issues that are the subject of community competence). The dynamics between the Presidency and the Commission are key to understanding European forest politics.

Political power is dispersed unevenly among these various actors, with countries with high forest cover (such as Brazil) and countries with major forest-based industries (such as the United States of America) tending to exercise more influence on political negotiations than smaller, economically weaker countries. When international negotiations stall, a small group of 'friends of the chair' may be invited to convene to work on compromise text. The exact membership of friends-of-the-chair groups varies, but within the UNFF it typically includes the United States, the EU, the G77 (with Brazil and China also invited) and possibly representatives of the African Group and the Association of Southeast Asian Nations (ASEAN).

These three perspectives on key international actors combine to yield a view of international forest governance as dynamic and evolving. Policy outputs are the result of an inherently political process whereby delegations cooperate in the shared endeavour of developing forest policy while simultaneously competing to promote narrower national and sectoral interests driven by political pressures, lobbying and

influence from other actors. Policies agreed outside governmental and intergovernmental organisations, such as the principles of forest certification, may also influence the standards and policies of governmental actors. Taken together, the goals identified in both governmental and non-governmental agreements are the result of political pressure and lobbying; inevitably, therefore, they are the result of compromises, concessions and accommodations.

2.3 Mapping key forest-related goals

The creation of a legible overview or 'map' of core international forest-related goals requires a clear organisational framework. By its very nature, however, any framework may prioritise certain actors, issues, values or perspectives while excluding others. Inevitably, therefore, whatever framework this chapter adopts will be open to contention. We acknowledge the importance of these debates and observe that the very absence of a universally agreed framework highlights the deeply politically contested nature of forest conservation and use.

One highly influential frame for forest-related issues is the 'three-legged stool' of sustainability popularised by the Brundtland Commission's report "Our Common Future" (UN 1987). According to this metaphor, environmental, social and economic needs form separate legs of a stool, each of which must have equal weight to achieve sustainable resource use. However, as discussed further in Chapter 5, this metaphor is increasingly contested. At an abstract level it has been criticised for implying that unlimited economic growth is achievable as long as it is 'balanced', and for failing to make clear that some, although not necessarily all, trade-offs between environmental, social and economic priorities may result in environmental degradation. As a classification framework, the stool metaphor is problematic because the legs are interactive and thus a given resource management issue may not fit exclusively into a single leg.

More specialised frameworks have emerged within various institutional settings that we could, in theory, use to analyse the coverage and comprehensiveness of the international forest regime. These include intergovernmental frames such as the Millennium Development Goals of the World Summit on Sustainable Development, the programmatic areas and goals of the CBD's Programme of Work (discussed in Chapter 3), and the seven thematic elements of SFM developed by the CPF (discussed in Section 2.5). Some non-state actors, such as those supporting the Programme for the Endorsement of Forest Certification (PEFC), have embraced intergovernmental frameworks such as the regional criteria and indicator processes. Others, however, have explicitly rejected such frameworks in favour of their own; the FSC, for example, has developed ten principles for well-managed forests (see Section 2.5).

Given the level of political contention surrounding existing institutionalised frameworks we have chosen not to rely exclusively on any of them. Indeed, in the process of drafting this report it became clear just how strongly many actors associate each framework with a particular set of interests; to use one or the other, therefore, risked alienating a large segment of our desired readership. This widespread contention over the framing of forest problems, no matter how generally or broadly stated they may appear, highlights the essential roles that ideas and discourse play in international forest governance – a theme developed in greater depth in Chapter 4 and Chapter 5.

In the absence of a universally accepted framework we have developed a hybrid approach that draws from the range of available discursive frames. This enables a comprehensive assessment of the biophysical, socio-economic and institutional dimensions of international forest-related goals, organised under the following three dimensions and six themes:

- *Biophysical*
  Theme 1: Forest extent and land-use change
  Theme 2: Ecosystem processes (including forest degradation/restoration)
  Theme 3: Biodiversity
- *Socio-economic*
  Theme 4: Economic development (including international trade and investment and resource transfer from developed to developing countries)
  Theme 5: Social welfare (including livelihoods and poverty alleviation, access and benefit-sharing, indigenous rights and workers' rights)
- *Institutional*
  Theme 6: Governance.

Our treatment of the institutional dimension focuses on the ways in which problems of forest governance have been framed as international issues. We do not attempt to cover the myriad procedural mechanisms, such as international and national planning, monitoring and reporting, that various global and regional processes have developed to operationalise their substantive goals; these are addressed in Chapter 4 and subsequent chapters.

2.4. Thematic assessment of global-scale intergovernmental processes

Each sub-section below starts with a brief discussion of a given theme and the issues the theme raises for global forest governance. This is followed by a box listing the key goals and objectives that have emerged from within global-scale forest-related processes to address those issues. The goals are restricted to those listed in the conventions or agreements themselves (as opposed to decisions, programmes of work, etc., of subsequent conference of the parties [COPs] to those conventions or agreements). The exceptions are those decisions of the COP to the United Nations Framework Convention on Climate Change (UNFCCC) related to reducing emissions from deforestation and degradation (REDD) and REDD plus forest enhancement (REDD+); the latter are included because of the extraordinary influence that REDD+ negotiations have already had on the international forestry community in advance of a post-Kyoto Protocol climate agreement.

2.4.1 Theme 1: Forest extent and land-use change

Global forest cover has been reduced by an estimated 20–50% over the last several hundred years, primarily due to agricultural conversion (Matthews et al. 2000). Other significant catalysts of forest loss include road-building to facilitate timber extraction and mining, urbanisation, and climate change. While, in most developed countries, the net total forest area is stable or expanding, the loss of tropical forests has accelerated; in the last decade, about 13 million hectares of forests per year were converted to other uses (FAO 2010). Increasingly, the conversion of forests to agriculture is driven by industrial-scale production for urban populations (DeFries et al. 2010). Over the next 30 years, commercial agriculture is expected to continue as a lead driver of deforestation in developing countries, alongside continued growth in global demand for food and biofuels (FAO 2002).

As further discussed under themes 2–6, this continued reduction in the global forest area is a matter of environmental, social and economic concern for a wide range of forest stakeholders. Arguably, recent estimates that forest loss accounts for 12–20% of all anthropogenic greenhouse gas (GHG) emissions (IPCC 2007; van der Werf et al. 2009) have led to international consensus on the need for global governance and goal-setting to address the issue.

The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 was a pivotal event for bringing tropical deforestation onto the intergovernmental agenda while also highlighting considerable tensions between developed and developing countries on the issue (Dimitrov 2005; Humphreys 2006; Tarasofsky 1999). The developing countries asserted their sovereign right to convert forests to more economically productive use, much as now-developed countries did in the past, and further argued that if they were to refrain from forest conversion they should be compensated for the opportunity cost incurred through the transfer of financial resources and technology. Developed countries declined to provide such compensation.

Ultimately, UNCED produced two documents directly related to forests: the Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (known as the Forest Principles), and Chapter 11 ("Combating Deforestation") of Agenda 21. The latter highlighted forest loss as a recognised concern but contained no goals committing to its reversal. The language of the Forest Principles is non-committal, including non-directory phrasing such as "take positive action" and "as appropriate" (Principle 8(a)).

Box 2.1 Key goals concerning land-use change (forest extent)

- Take positive and transparent action towards reforestation, afforestation and forest conservation, as appropriate (*UNCED 1992, The Forest Principles, Principle 8(a)*)
- Promote sustainable management and conservation of sinks and reservoirs of all greenhouse gases, including forests (*UNFCCC 1992, Article 4.1(d)*)
- The net changes in greenhouse gas emissions from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation since 1990, shall be reviewed in accordance with the commitments of each Party included in Annex I (*Kyoto Protocol 1997, Article 3.3*)
- Reverse the loss of environmental resources (*United Nations Millennium Development Goals 2000, Target 7A*)
- Reverse the loss of forest cover worldwide through sustainable forest management, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation (*UNFF NLBI 2008, Objective 1*)
- Reduce emissions from deforestation and forest degradation (*UNFCCC COP 13/Decision 1 (Bali Action Plan) 2008; COP 15/Decision 4 (Methodological Guidance for REDD+) 2009*).

Negotiations on deforestation were carried beyond UNCED within an increasing array of forest-related intergovernmental processes, largely within the forest sector itself. From a transgovernmentalism perspective, these negotiations excluded the key actor networks in agriculture, mining and other sectors that were playing a pivotal role in much of the ongoing forest loss (Geist and Lambin 2002; Rudel et al. 2009).

A notable exception was the gradual strengthening, under the UNFCCC, of the link between forest loss and GHG emissions. The text of the UNFCCC, which was agreed at UNCED, includes forestry in the broader concept of land-use change (Article 4.1(d)), reflecting a greater cross-sectoral focus, albeit with the same type of discretionary wording found in the Forest Principles. Along similar lines, Goal 7, Target 7A of the Millennium Development Goals (adopted by the United Nations in 2000) calls for the reversing of the loss of environmental resources and refers to "alarming" rates of deforestation, although there is no specific call to reverse forest loss.

The decision of the United States not to ratify the UNFCCC's Kyoto Protocol further shifted actor network dynamics by removing a politically powerful country that was strongly opposed to legally binding, measurable targets for emissions reductions (Barrett 1998; Hovi et al. 2003). The decision to include measurable targets for emissions reductions within the Kyoto Protocol set the stage for the linking of land-use decisions with those targets.

At first, however, this linkage was strictly limited in scope. Many European countries, international NGOs, and some key developing countries – such as Brazil – initially resisted the inclusion of natural forests as carbon sinks to count towards emissions targets and in particular argued for the exclusion of avoided tropical deforestation as a sink under the modalities of the Kyoto Protocol. The reasons for this resistance varied between actors; they included concerns over: sovereignty; capacity for adequate monitoring and enforcement; and the environmental, social and economic impacts of using an abundant yet vulnerable natural resource to offset fossil-fuel emissions (Boyd et al. 2008).

By 2005, however, the positions of many actors within both the forest and climate policy communities had begun to change rapidly and dramatically. In that year, the Coalition for Rainforest Nations, which included Papua New Guinea, Indonesia and a number of other key tropical countries, submitted a proposal to the UNFCCC to reduce their rates of deforestation and degradation in exchange for compensation (Humphreys 2008). Unlike past demands for such compensation, REDD (and its later iteration, REDD+) came with the promise of substantial governmental and private financial support tied to legally binding emissions reduction targets and/or global carbon markets. Moreover, it offered a mechanism for addressing not only forest management but also other more lucrative land uses that currently drive forest loss. REDD+ has since gained support from an unprecedented array of actors in many sectors (Levin et al. 2008).

It is important to note, however, that at the time of writing the text on REDD+ remains mostly in draft form and is included in this analysis only because of the enormous amount of attention and resources it has generated prior to its formal agreement (Skutsch and Mccall 2010). To date, parties have been unable to agree on many of the rules by which a REDD+ mechanism would be governed. Much debate has centred on the need for social and environmental safeguards, including mechanisms to protect the rights of indigenous and local communities and to conserve biodiversity. As discussed in Chapter 5, these debates highlight more fundamental, underlying conflicts over issues such as the definition of what constitutes a forest and whether parties should be allowed to convert natural forests to plantations (Sasaki and Putz 2009). The possible role of REDD+ in international emissions trading schemes is contested and it is also unclear how the baseline or reference rates for both deforestation and degradation will be established; the measurement of forest degradation remains particularly problematic (e.g. Angelsen and Wertz-Kanounnikoff 2008). Nevertheless, tentative progress on these issues is reflected in the decision on methodological guidance made by COP 15 of the UNFCCC (Dec. 4/2009). This decision addresses the identification of drivers of deforestation; the use of Intergovernmental Panel on Climate Change guidelines for estimating anthropogenic forest-related GHG emissions and changes in forest cover; and the establishment of national monitoring systems.

2.4.2 Theme 2: Ecosystem processes (including forest degradation / restoration)

This theme addresses the effect of human activities on ecosystem processes, including efforts to slow and/or reverse forest degradation. It is estimated that about two-thirds of the world's remaining forests have been "significantly" altered by human activity (excluding the effects of climate change) (CBD 2006). However, the determination of what constitutes degradation – as opposed to human-induced change that may be considered sustainable or well-managed – requires an agreed frame of reference as well as adequate monitoring capacity. To some, for example, natural disturbances (such as fire or insect outbreaks) constitute an important component of a healthy forest, while others may consider these

detrimental to management objectives. Likewise, it can be difficult to determine the extent to which such disturbances are within the "range of natural variability" (Landres et al. 1999) or have been exacerbated by human impacts and are detrimental to ecosystem resilience. Similarly, while some view logging as forest degradation and a common precursor to conversion, others see it as part of managing a forest sustainably. Other human impacts are viewed more consistently as negative; for example, the introduction (either accidentally or intentionally) of invasive alien species has been identified as one of the top-three threats to biodiversity (the other two being habitat loss and hunting and/or harvesting; Clavero and Garcia-Berthou 2005).

A diverse array of actors is involved in framing the issue of human-induced ecosystem change; such actors have chosen various intergovernmental processes to do so. The United Nations Convention to Combat Desertification (UNCCD) is the only convention to expressly address ecosystem degradation in its title. The UNCCD was spearheaded by a coalition of African governments as a means to gain international support for addressing the desertification and drought affecting much of the African continent. Developed countries agreed to the Convention without making additional funds available. Thus, the UNCCD was created to address concerns that disproportionately affect one region and has since struggled to find traction at a global scale.

Possible routes past this obstacle may have been formed by the linking of forests to climate change via the concept of adaptation brought to the fore by the UNFCCC, which also highlights Africa as a high-priority focus for adaptation support (Article 4.1(e)). While such support has been slow in materialising, the recent increase in attention and funding around REDD+ appears to be spilling over into adaptation efforts as well (Skutsch and Mccall 2010).

A number of other global processes, including the CBD, the International Tropical Timber Agreement (ITTA) and the UNFF's Non-Legally Binding Instrument on All Types of Forests (NLBI) also address ecosystem degradation, each involving different, although overlapping, transgovernmental networks. While there appears to be some diffusion of issues and ideas across these networks, this may mask underlying differences in the definition of what constitutes forest degradation as opposed to sustainable forest use.

Nevertheless, there appears to be quite widespread agreement on the importance of setting aside areas of forest for special protection. The establishment of protected areas is among the key goals of both the CBD and the NLBI, although each has taken a different approach. In negotiating the NLBI, some actors, such as the EU, had pushed for a quantitative and time-bound target on protected areas, but this was opposed by both Brazil and the United States. The CBD, in contrast, has established increasingly detailed (albeit unenforceable) targets for the expansion of protected areas, stratified by major biome (Schmitt et al. 2009). The IUCN's World Commission on Protected Areas and the World Bank–WWF Alliance have also been active proponents for the creation of forested protected areas. Likewise, the World Heritage Convention and the Ramsar Convention on Wetlands of International Importance both promote the designation of protected areas, including forested ecosystems, that meet certain specifications.

The emergence of the concept of environmental services in later global agreements (e.g. the ITTA 2006, Article 1(q); the NLBI, Article 1(j)) is notable in two major regards. First, in concert with REDD+, it reflects what many have noted as the growing popularity of market-based approaches that attach monetary

Box 2.2 Key goals concerning ecosystem/forest degradation

- Combat desertification and mitigate the effects of drought, particularly in Africa, through rehabilitation, conservation and sustainable management of land and water resources (*UNCCD 1994, Article 2*)
- Prepare for adaptation to the impacts of climate change, and plan for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods (*UNFCCC 1992, Article 4.1(e)*; see also UNFCCC decisions under Theme 1)
- Rehabilitate and restore degraded ecosystems (*CBD 1992, Article 8(f)*)
- Support tropical timber reforestation and rehabilitation of degraded forest land *(ITTA 1994/2006 Article 1(j)*)
- Prevent the spread of alien species which threaten ecosystems, habitats or species (*CBD 1992, Article 8(h)*)
- Increase efforts to prevent forest degradation (*UNFF NLBI 2008, Objective 1*)
- Establish a system of protected areas (*CBD 1992, Article 8 (a)*)
- Increase significantly the area of protected forests (*UNFF NLBI 2008, Objective 3*)
- Recognise the contributions of a range of forest values, including environmental services, to sustainable forest management (*ITTA 2006, Article 1(q); UNFF NLBI 2008, Article 6(j)*)
- Control and reduce emissions of sulphur, nitrogen oxides, ammonia and volatile organic compounds (*Gothenburg Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-level Ozone 1999, Article 2*).

values to socially desired goods as a means to incentivise, rather than regulate, behaviour (Paterson et al. 2003; Riain 2000; Simmons and Elkins 2004). This is most directly articulated in the NLBI, which encourages parties to "reflect" the range of forest values "in the marketplace" (NLBI, 1(j)). This approach is consistent with the preferences of those private-sector actors and states that are supportive of trade liberalisation. Second, it serves, at least in theory, to expand forest-related goal-setting to more comprehensively cover the biogeochemical components of forests (e.g. water, soil, biodiversity and microclimate). In this latter sense, the concept of environmental services addresses the priorities of many conservation NGOs and is consistent with trends in earth system science (e.g. Armitage et al. 2009; Bengtsson et al. 2003; Holling and Meffe 1996).

Some of the most authoritative language addressing forest-related health issues emerged in response to air pollution, thereby involving a different set of transgovernmental actor networks. The 1979 Convention on Long-Range Transboundary Air Pollution was among the earliest multilateral environmental agreements. It has since produced eight protocols, including the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (the 'Gothenburg Protocol'), which was agreed partly in response to forest dieback in Europe and North America and includes legally binding targets.

2.4.3 Theme 3: Biological diversity

Biological diversity refers to "the variability among living organisms", including the "diversity within species and of ecosystems" (CBD 1992, Article 2). Anthropogenic activities have driven a global loss of biodiversity at a rate that is unprecedented in the last 65 million years (Reid and Miller 1989; Wake and Vredenburg 2008); the rate of loss continues to increase (MEA 2005).

The 1975 Convention on the International Trade of Endangered Species of Wild Fauna and Flora (CITES) was the first multilateral environmental agreement to address the conservation of species. From a pluralist perspective, environmental NGOs played an important role in drawing international attention to trade in endangered species. As early as 1963, IUCN called for a convention to address it and, for the following ten years, worked closely with the United Nations Environment Programme (UNEP) to bring it into being (Sands and Bedecarré 1989). Under CITES, species listed in Appendix I are prohibited from commercial trade, species listed in Appendix II are monitored and can be traded internationally with a permit, and species listed in Appendix III are monitored by the listing state(s). Only a few timber species are listed (e.g. bigleaf mahogany – *Swietenia macrophylla* – in Appendix II). In general, while CITES was instrumental in establishing endangered species as a matter of global concern, its scope is strictly limited to issues of international trade and thus it cannot address broader questions of species' and habitat conservation.

Box 2.3 Key goals concerning biological diversity

- Regulate and monitor the international trade in endangered species (*CITES 1973, Appendices I–III listings*)
- Conserve biological diversity, including diversity within species, between species and of ecosystems (*CBD 1992, Articles 1 and 2*)
- Promote sustainable use of the components of biodiversity (*CBD 1992, Article 1*)
- *In-situ*/*ex-situ* conservation of biodiversity (*CBD 1992, Articles 8 and 9*)
- Protect biodiversity from the potential risks posed by living modified organisms (*CBD 1992, Article 19; Cartagena Protocol on Biosafety, 2000*)
- Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss (*United Nations Millennium Development Goals, 2000, Target 7B*).

Instruments dealing with biodiversity in a more comprehensive manner have been developed only from the early 1990s, beginning with the influential CBD, which emerged from UNCED. The governmental drivers behind the negotiation of the CBD were tropical forest countries with major biodiversity hotspots; many of these countries now comprise the CBD caucus group known as Like-Minded Megadiverse Countries. Conservation organisations such as IUCN, WWF and the World Conservation Monitoring Centre also lobbied for the CBD (McConnell 1996) and have been engaged in the CBD process throughout.

The CBD addresses biodiversity conservation both *in-situ* (i.e. in the natural surroundings of the various components of biodiversity) and *ex-situ* (i.e. outside the natural surroundings of those components) (Articles 8 and 9). It also addresses the handling of "living modified organisms resulting from biotechnology", emphasising both the equitable sharing of biotechnology and the management of the associated risks (Article 19). The risks posed by living modified organisms have been of particular concern to many international NGOs, and some researchers (e.g. Betsill and Corell 2008) have credited such NGOs with playing a central role in the adoption, in 2000, of the Cartagena Protocol on Biosafety. However, a number of CBD member states have not

ratified this Protocol.

The inclusion of biodiversity in the Millennium Development Goals in 2000 was significant because it elevated the concept to a particularly high-level, cross-sectoral forum. Reference to it can be found in a plethora of COP decisions across a wide range of multilateral environmental agreements dating from that time (McDermott et al. 2007).

2.4.4 Theme 4: Economic development (including international trade and investment and resource transfer from developed to developing countries)

Worldwide, national economic growth and development is increasingly dependent on international trade and investment. Likewise, global trade in certain key agricultural products, most notably soy, palm oil and beef, is playing an expanding role in forest loss and degradation (DeFries et al. 2010; Rudel et al. 2009). Both the benefits and costs of development are highly unevenly distributed, an issue at the core of many conflicts in the negotiation of both trade and environmental agreements. As a result, parallel sets of goals have emerged to facilitate free trade on the one hand, and to address the unequal distribution of environmental and social costs and benefits resulting from this trade on the other.

Currently over 150 states are members of the WTO and signatories of the General Agreement on Tariffs and Trade (GATT) (WTO 2010). The WTO and its associated trade agreements promote the free trade of goods and services across national boundaries, with states required to make changes to national legislation consistent with WTO rules on pain of sanctions, requirements that are largely absent from the key forest-related environmental agreements (Eckersley 2004).

The governing norm of the WTO is trade and investment liberalisation; all businesses and investors should be free to trade with and invest in other countries without discrimination. Under the WTO principle of trade without discrimination, states cannot apply different conditions for trade and investment to different countries nor discriminate in favour of national businesses relative to foreign businesses. WTO rules help explain why many developing countries continue to retain a large proportion of their forests under public ownership (White and Martin 2002). Most of the world's most powerful timber and paper-manufacturing corporations – likely to be some of the main beneficiaries of tropical-forest privatisation – are based in developed countries.

WTO agreements do, however, include provisions that allow for trade restrictions imposed with the aim of conserving natural resources. Among the most important is Article XX(g) of GATT, which allows for trade restrictions on exhaustible resources, consistent with domestic laws. The status of forests under the principle of trade without discrimination is therefore unclear. GATT does not permit states to discriminate against "like products" (that is, products with similar characteristics or end uses) on the basis of their manufacture. This has been interpreted to mean that states cannot discriminate, in international trade, between 'sustainably managed' timber (however so defined) and timber from 'unsustainable' sources. So far this clause has not been tested before a WTO dispute panel. However, the 1998 shrimp–turtle case brought by India, Malaysia, Pakistan and Thailand against the US, could have ramifications for forest use. In this case, the United States took action against shrimp imports from countries that used nets that did not include turtle-exclusion devices. The WTO ruled that the action was unlawful because it was aimed only at Asian and Caribbean countries, but it also ruled that the action would be legal provided there was no discrimination between countries (Sarre 2009; WTO 1998).

The principle of non-discrimination also plays an important role in environmental agreements, sometimes to very different effect. For example, Principle 3 of the 1992 Rio Declaration on Environment and Development states that current economic development opportunities should not prejudice the ability of future generations to meet their own needs. However, by definition the actors most affected by the concept of intergenerational equity (i.e. future generations) cannot enter intergovernmental negotiations and their

Box 2.4 Key goals concerning economic development

- Trade liberalisation and the principle of non-discrimination (*GATT 1947, 1994*)
- The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations (*UNCED 1992, Rio Declaration, Principle 3*)
- Common but differentiated responsibilities (*UNCED 1992, Rio Declaration, Principle 7; UNFCCC 1992, Article 3.1; UNFF NLBI 2008, Preamble*)
- Develop a global partnership for development (*Millennium Development Goals 2000, Goal 8*)
- Promote trade in tropical timber from sustainable sources (*ITTA 1994/2006, Article 1*)
- Increase the proportion of forest products from sustainably managed forests (*UNFF NLBI 2008, Objective 3*)
- Create enabling environments for private-sector investment (*UNFF NLBI 2008, Article 6(h)*).

needs, accordingly, remain only vaguely defined.

The question of equity among countries is an issue that has been advocated consistently by G77 countries. As discussed under Theme 1, this issue came to the fore at UNCED when developing countries demanded compensation for the costs of foregoing development opportunities as a result of global environmental agreements. An outcome of these demands was the introduction of the phrase "common but differentiated responsibilities". Specifically, Principle 7 of the Rio Declaration on Environment and Development states: "In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit to [sic] sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command." This concept finds further voice in Goal 8 of the Millennium Development Goals, which calls for support for developing countries in accessing resources, technologies and developed markets.

Principles 3 and 7 of the Rio Declaration on Environment and Development are taken up in Article 3.1 of the UNFCCC, which holds that "The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities". The phrase 'common but differentiated responsibilities' appears verbatim in the preamble of the NLBI and is also embedded in the many decisions made under or within those environmental agreements and processes discussed in this chapter that call for the transfer of technologies and resources from developed to developing countries. Applied to forests, the concept of international equity implies different types and levels of national responsibility for addressing and reversing deforestation. But while there is agreement on the principle, there is less consensus on its practical application in and policy relevance to forests.

The ITTA 1994, and its proposed successor ITTA 2006, are the only global legally binding instrument that focus expressly on forest trade, with the overarching objective of promoting "the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and to promote the sustainable management of tropical timber producing forests for the purpose of producing forest products" (Article 1). Its governing body, the International Tropical Timber Council (ITTC), has two caucus groups: tropical timber producer countries and tropical timber consumer countries. The timber trade is well represented at ITTC sessions, but many conservation groups ceased attending ITTC sessions in the mid 1990s over what they perceived to be the unwillingness of the ITTC and the body established to administer the ITTA, the International Tropical Timber Organization (ITTO), to focus more attention on conservation issues (Humphreys 2006).

The ITTA's focus on the tropical timber trade was carried forward and expanded to all forests in the NLBI, without the emphasis on *promoting* global trade. NLBI Objective 3 calls for an increase in the "proportion of forest products [sourced] from sustainably managed forests". Also notable is Article 6(h), which suggests that member states should "create enabling environments to encourage private sector investment … in sustainable forest management". Together with NLBI Article 1(j), which emphasises the range of forest products and services (see Theme 3), this is consistent with increased global interest in private financing not only for traditional timber and non-timber forest products but also potentially for REDD+ (Lin and Streck 2009) and payment schemes for ecosystem services (Bond et al. 2009).

2.4.5 Theme 5: Social welfare (including livelihoods and poverty alleviation, access and benefit-sharing, indigenous rights and workers' rights)

This theme focuses on issues of social welfare and equity, not across generations or nations as in Theme 4 but among forest-dependent communities, indigenous peoples, forest workers and disadvantaged populations in general. An estimated 1.6 billion people depend directly on forests for their livelihoods (World Bank 2004), ranging from indigenous forest-dwellers to migrants and displaced populations engaged in a wide range of livelihood activities, such as hunting and gathering, shifting cultivation, agroforestry and the production and trade of timber and non-timber forest products. Forests are also essential for the cultural survival of many indigenous communities and directly contribute to the livelihoods of an estimated 90% of the 1.2 billion people living in extreme poverty globally (ibid.).

The key actors shaping many of the global goals related to Theme 5 differ notably from the primarily state-centric actors central to Theme 4. In his pluralist assessment of the influence of NGOs on ITTO, UNCED forest negotiations and the UNFF, Humphreys (2004) credits NGOs with a central role in introducing language on 'local communities', 'indigenous knowledge', 'the role of women' and 'the sharing of benefits that arise from the utilisation of traditional or indigenous knowledge'. Other key actor networks that have influenced goal-setting either within or outside the forest arena include indigenous peoples' organisations, the state negotiators respon-

sible for the Millennium Development Goals, and the International Labour Organization (ILO).

The goal of protecting traditional ecological knowledge and practices appears in a number of forest-related instruments, including the CBD (Article 8(j)) and the UNCCD, which requires parties to "protect, promote and use in particular relevant traditional and local technology, knowledge, know-how and practices" (UNCCD, Article 18.2). The role of forests in cultural heritage is recognised in the 1972 World Heritage Convention (Sayer et al. 2000).

Another set of core goals relates to 'access and benefit-sharing' (ABS), a phrase first coined within the CBD in the context of access to genetic resources (Articles 1 and 15). The NLBI also adopted this concept, applying it to "traditional forest-related knowledge and practices in sustainable forest management" (Article 6(f)). The CBD's treatment of ABS therefore appears to be relatively narrowly defined, but it has significant ramifications for international trade that potentially conflicts with the rules of the WTO. Patents on the use of genetic resources are often registered by transnational pharmaceutical, agricultural and biotechnology corporations, in many cases against the wishes of the governments of countries within which the resources have been harvested. Patents are permissible under the Agreement on Trade-Related Intellectual Property Rights (TRIPS), which requires that any royalties derived from the commercial exploitation of patents accrue to patent-holders. One interpretation of benefit-sharing in the context of forests is that such royalties should be shared with those communities that had knowledge of the properties of forest species prior to patenting and with the governments of countries that form part of the natural range of those species. While there is some measure of international agreement that benefits should be shared equitably among business corporations, governments and communities, there is so far no agreement on a formula to guide such sharing.

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) takes the question of indigenous rights well beyond the issue of genetic patents. A central goal of UNDRIP is to require the "free, prior and informed consent" of indigenous people for all economic and development activities that take place on their lands and territories. This means that any such consent should be free (that is, freely given or withheld), prior (that is, obtained before implementation) and informed (that is, based on a full understanding of how livelihoods and lands will be affected). ILO Convention 169 (Article 7.1) also backs the goal of indigenous self-determination, including "the right to decide their own priorities for the process of development", although it does not mention the principle of free, prior and informed consent.

Box 2.5 Key goals concerning social welfare

- Respect, preserve and maintain the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles (*CBD 1992, Article 8(j); UNFF NLBI 2008, Paragraph 6(f); UNDRIP 2007, Article 31.1; World Heritage Convention 1972*)
- Promote the fair and equitable sharing of the benefits arising out of traditional knowledge and practices relevant to conservation and sustainable use [including appropriate access to those resources – CBD] (*CBD 1992, Articles 1, 8(j), 15; UNFF NLBI 2008, Paragraph 6(f)*)
- Indigenous people have the right to free, prior and informed consent (*UNDRIP 2007, Articles 10, 11.2, 19, 28.1, 29.2 and 32.2*)
- Indigenous and tribal peoples have the right to decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual well-being (*ILO Convention 169, 1989, Article 7.1*)
- Eradicate/alleviate poverty (*Millennium Development Goals 2000, Goal 1; ITTA 2006, Article 1(c); UNCCD 1994, Article 4.2(c); UNFF NLBI 2008, Article 6(d)*)
- Enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest-dependent people (*UNFF NLBI 2008, Objective 2*)
- Allow worker freedom of association and collective bargaining; eliminate forced labour, discrimination and child labour (*The eight ILO core conventions: C-29; C-87; C-98; C-100; C-105; C-100; C-111: C-138; C-182*).

The Millennium Development Goals have been instrumental in attracting greater international attention to social welfare issues, particularly poverty alleviation, with ramifications both within and outside the forest sector. Goal 1 is notable for its strong language (i.e. to "eradicate extreme poverty and hunger") and is accompanied by specific targets. This focus on poverty is also reflected in some forest-related instruments, including the UNCCD, which also calls for poverty "eradication" (Article 4.2(c)), and the ITTA 2006 (Article 1(c)) proposed successor agreement to ITTA 1994, and the NBLI (Article 6(d)), which more modestly refer to poverty "alleviation" and "reduction", respectively.

The eight ILO core conventions are of particular relevance to the protection of workers employed in industrial forestry. They cover diverse fundamental rights, such as freedom of association and collective bargaining (C-87 and C-98), and include stipulations against forced labour (C-29 and C-105). ILO conventions C-100 and C-111 prohibit discrimination on the

basis of a variety of criteria, including race, colour, sex, religion, political opinion, national extraction and social origin (C-111). Child-labour requirements (C-138 and C-182) include various definitions and prohibitions against harmful childhood labour, setting a minimum employment age of at least 15 (or 14 for lesser-developed countries), and requiring that employment should not interfere with basic schooling.

2.4.6 Theme 6: Governance

The issue of forest governance is increasingly accepted as a core challenge facing global forestry. In many developing countries, forest tenure – that is, the distribution of rights to forestlands and resources – is unresolved and/or disputed. The laws governing forest use are often incomplete, conflicting, extraordinarily complex and/or poorly enforced (McDermott et al. 2010). Central to overcoming these challenges is the establishment of institutions and decision-making processes that are widely accepted as just and legitimate (Buchanan and Keohane 2010; Cashore 2009; World Bank 2009). All of the global agreements and processes discussed in this chapter have generated decisions addressing the institutional and procedural measures necessary to achieve their substantive goals. The focus here is not these instrumental decisions but rather the setting of global goals that define key forest governance 'problems'.

The growing international attention on illegal logging is arguably one of the most significant recent forest-related developments that has emerged largely from within the sector itself (Tacconi 2007). Key actors include coalitions of environmental groups, developed-country timber producers concerned with protecting market share, and developing countries concerned with control over their forest resources and the capture of state revenues from timber production.

The ITTA 2006 proposed successor agreement to ITTA 1994 reflects this growing consensus with an objective to strengthen "the capacity of members to improve forest law enforcement and governance, and address illegal logging and related trade in tropical timber" (Article 1(n)). The appearance of this objective in the agreement illustrates how principles in the international forest regime can be reinforced as they spill from one institution to another. The need for action to address illegal logging and the trade in illegally harvested timber was first recognised in the 1997 'proposals for action' of the Intergovernmental Panel on Forests. It was then included in the G8 Action Programme on Forests (1998–2002). In 2001 the first steps were taken in the creation of a network of regional Forest Law Enforcement and Governance (FLEG) initiatives to tackle illegal logging. To date, these FLEG processes have been most active in Asia and Africa (see the regional boxes below and Appendix 1.

Box 2.6 Key goals concerning governance

- Improve forest law enforcement and governance and address illegal logging and related trade in tropical timber (*ITTA 2006, Article 1(n)*)
- Promote and strengthen measures, including international cooperation, against corruption (*United Nations Convention against Corruption 2003, Article 1*)
- Involve stakeholders/the public in resource management decision-making (*Rio Declaration on Environment and Development 1992, Principle 10; CBD 1992, Article 14.1(a); UNCCD 1994, Article 10.2(f); UNFF NLBI 2008, Article 2(c), 6(w)*)
- Guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters (*Aarhus Convention 1998, Article 1*).

In many countries, illegal logging is aided and abetted by clientelism in the public sector. An increasing confluence of actors in both developed and developing countries are now agreeing to frame this phenomenon as an issue of corruption (Singer 2009; Tacconi 2007) as well as to seek international agreements to address it. It has been argued that the sheer volume of information, money, drugs and arms flowing across borders has "destroyed the illusion of corruption as a domestic political issue to be left to individual countries" (Webb 2005). Shifting perspectives could also be due in part to influential NGOs such as Global Witness and Transparency International (Wang and Rosenau 2001) and more broadly to the growing number of developing countries and their relatively empowered citizenry that are committed to strengthening democratic processes (Keefer and Vlaicu 2008) and/or ridding themselves of rival political parties (Khan 1998). In a similar way to illegal logging, international agreements to tackle corruption first took strong shape at the regional level (Webb 2005). In 2003, the issue moved into the global sphere with the signing of the United Nations Convention against Corruption. The current global interest in REDD+ has brought the question of corruption further to the fore of international concern about forests. Addressing corruption will be a key to the success of REDD+ payments, particularly given the apparent global consensus that REDD+ payments will be coordinated by national governments.

Also connected to the development of effective governance processes is the principle that stakeholders – such as communities, farmers, local busi-

nesses and indigenous peoples – should participate in policymaking processes. This principle, championed in particular by conservation, social and indigenous NGOs and other non-governmental interests (Humphreys 2004; Tollefson et al. 2008), has gained considerable normative strength over the last several decades. It appears, for example, in the Rio Declaration on Environment and Development (Principle 10), the CBD (Article 14.1(a)), the UNCCD (Article 10.2(f)), the NLBI (Articles 2(c) and 6(w)) and the World Bank's operational policy on forests (World Bank 2002). The principle is thus a broad one that has been articulated in several legal codes and policy declarations. There is some disagreement, however, on how it should be defined and implemented. There is a distinction between consultation (which merely gives stakeholders the right to present their views) and participation (which carries with it the ability to influence decisions and contribute to the shaping of policy).

The 1998 Aarhus Convention fuses the principle of participation with two other principles: the rights of access to information and access to justice in environmental matters. The Aarhus Convention is a regional convention of the United Nations Economic Commission for Europe. Former United Nations Secretary-General Kofi Annan has commented that "although regional in scope, the significance of the Aarhus Convention is global. It is by far the most impressive elaboration of Principle 10 of the Rio Declaration … {and} the most ambitious venture in the area of environmental democracy so far undertaken by the United Nations" (Annan undated).

2.5. Internationally negotiated conceptual frameworks for SFM

Parallel to, and distinct from, the above sets of aspirational goals and commitments established through intergovernmental negotiations are two other types of instrument that provide overarching, cohesive frameworks for assessing and/or evaluating forest management at the global to local levels. The first involves an array of regional and international processes to develop criteria and indicators (C&I) for SFM that were catalysed through global-scale agreement. These processes are unique in the intergovernmental arena in their combined focus on comprehensively defining the components of SFM (generally at the national level); their emphasis on national-level measuring and monitoring rather than normative goal-setting; and their globally initiated and supported, but regionally generated, goal-setting.

The second type of instrument, forest certification, is a market-driven approach governed by actors operating outside intergovernmental negotiations. Like the C&I processes, forest certification schemes have engaged in the comprehensive definition of SFM. Unlike the C&I processes, however, these schemes have focused expressly on the evaluation of procedural and substantive performance at the level of individual forest management units and/or associations of forest producers.

The following subsections provide a brief overview of the key actors, concepts and goals that these instruments have contributed to international forest governance.

2.5.1 Criteria and indicators for SFM

ITTO pioneered the development of international C&I with its 1992 publication of C&I for tropical forests. In the same year, at UNCED, tropical country leaders pushed for the inclusion of temperate and boreal forest issues in intergovernmental negotiations (Humphreys 2006). Consistent with this expanded focus, the Forest Principles and Agenda 21 called for the development of international criteria for monitoring national forest resources in all types of forests worldwide (Forest Principle 8(d) and Agenda 21 Objective 11.33 (a)). This spurred the development of seven regional (i.e. Pan-European Forest, African Timber Organization, Dry Forest in Asia, Dry-Zone Africa, Lepaterique, Near East and Tarapoto) and two international (i.e. Montreal and ITTO) C&I processes involving about 150 countries (Wijewardana 2008).

The creation of nine processes suggests that influential forest actors favoured a relatively decentralised approach to framing SFM. Nevertheless, the frameworks thus generated have, in turn, been used in a simplified form by global institutional actors such as the CPF as a means to link the reporting and measurement of progress across global forest-related international instruments. The core goal of the CPF is to "increase cooperation and coordination on forests" (CPF 2010) through collaborative work among 14 international organisations and secretariats with "substantial programmes on forests" (i.e. CIFOR, FAO, ITTO, IUFRO, CBD, GEF, UNCCD, UNFF, UNFCCC, UNDP, UNEP, the World Agroforestry Centre, the World Bank and IUCN; CPF 2010). The CPF Task Force on Streamlining Forest-Related Reporting (CPF 2004) analysed the nine C&I processes and found that all shared in common "seven thematic areas of sustainable forest management". These are:

1) Extent of forest resources
2) Biological diversity
3) Forest health and vitality

4) Productive functions of forest resources
5) Protective functions of forest resources
6) Socio-economic functions
7) Legal, policy and institutional framework.

These thematic areas have since been endorsed by the UNFF, the International Conference on Criteria and Indicators in Guatemala (CICI 2003), and the FAO Committee on Forestry. Likewise, the FAO/ITTO Expert Consultation on Criteria and Indicators formally recognised the importance of the seven thematic areas in facilitating international communication on forest-related issues (CPF 2004).

2.5.2 Forest certification standards

As described in numerous historical accounts (e.g. Auld et al. 2008; Cashore et al. 2004; Rametsteiner and Simula 2003), forest certification was championed initially by international environmental and social organisations mostly headquartered in Europe and North America (e.g. the Rainforest Alliance, Friends of the Earth, WWF), along with a small group of sympathetic business interests (including the United Kingdom-based retail giant B&Q). The core idea behind certification was to harness the market to promote responsible forest management by awarding an ecolabel to forest products produced according to agreed-upon environmental and social standards for 'responsible' forestry. It is notable that a number of the early promoters of forest certification first explored the development of timber labelling within both ITTO and the International Organization for Standardization (ISO – a global consortium of national standard-setting bodies). In the case of ITTO, tropical-country negotiators objected to even the voluntary labelling of tropical timber on the grounds that it constituted a barrier to trade. In the context of the ISO, industry interests eschewed specific performance standards in favour of a systems-based approach that allowed businesses to establish their own performance thresholds (Elliott 2000).

The FSC thus emerged in 1993 as a new, global-scale, non-governmental organisation with a governance structure that excluded government participation and strictly limited the influence of actors with a direct economic interest in the production and sale of forest products. Within the parameters of this structure, the FSC produced ten principles and criteria that define responsible forestry worldwide. The ten principles echo a number of the issues that conservation and social-welfare NGOs have been instrumental in framing and promoting within global intergovernmental processes (e.g. see theme 5). They are:

1) Compliance with laws and FSC principles
2) Tenure and use rights and responsibilities
3) Indigenous peoples' rights
4) Community relations and worker's rights
5) Benefits from the forest
6) Environmental impact
7) Management plan
8) Monitoring and assessment
9) Maintenance of high-conservation-value forests
10) Plantations.

The launch of the FSC sparked considerable controversy among forest industry and government actors, who questioned the authority of the FSC to define and evaluate appropriate forest practices (Cashore et al. 2004; Elliott 2000; Meidinger et al. 2003). In response, a number of forest producer associations in North America and Europe formed competing certification schemes, sometimes with the involvement of government agencies and/or national industry standards organisations. Many such schemes have since united under the umbrella of the PEFC, which began as a European scheme and was re-launched in 2003 as a global organisation. In contrast to the FSC, the PEFC has not established a global performance standard. Instead, it endorses certification scheme standards on the basis of their consistency with the regional and international C&I processes discussed above.

In a further example of public/private goal diffusion, support for voluntary timber labelling schemes is now expressly stated in some global intergovernmental processes, including those that were initially resistant to the idea. For example, the NLBI calls on state actors to "encourage" the development of private voluntary instruments "such as voluntary certification systems" (Article 6(x)), and certification is similarly mentioned in the ITTA 2006 (Article 1(o)).

2.6. Regional processes and their interaction with global forest-related goals

The following boxes provide examples of key goals and associated processes that have emerged at the regional level in Africa, Asia, Europe and Latin America. The intent of this analysis is not to be exhaustive but rather to illustrate ways in which regional processes may serve to translate and internalise global commitments into regional contexts, to establish regionally specific priorities, and/or to provide alternative goal-setting venues in areas where global consensus has not yet been reached (e.g. the EU's proposed legally binding agreement on forests).

Box 2.7 African regional agreements

Theme 2: Biological diversity

- The African states, under the African Convention on the Conservation of Nature and Natural Resources, established, as a fundamental principle, the adoption of the measures necessary to ensure the conservation, utilisation and development of soil, water, flora and faunal resources in accordance with scientific principles and with due regard to the best interests of the people (Article 2).

Theme 5: Social welfare

- The African Union, the African Development Bank and the Economic Commission for Africa are jointly implementing a regional initiative to develop a Pan-African Framework on Land Policy for Securing Rights, Enhancing Productivity and Improving Livelihoods.

Theme 6: Governance

- The New Partnership for Africa's Development (NEPAD), established in 2001, is a programme of the African Union. The action plan of NEPAD's environment initiative is a region-wide framework for, among other things, promoting the sustainable use of African natural resources and improving the institutional framework for regional environmental governance. The African Ministerial Conference on the Environment monitors the implementation of the plan.
- The African Forest Forum is being established as a mechanism to mobilise and represent African voices in international forest platforms such as the UNFF.
- The Ministerial Declaration arising from the Ministerial Conference on African Forest Law Enforcement and Governance in 2003 commits to fighting illegal logging and improving laws and regulations, forest-sector governance and local development.
- The Central African Forests Commission, a ministerial consortium established under the legal authority of the 1999 Yaoundé Declaration, coordinates forest governance and conservation efforts across Central Africa.
- Ghana, Congo and Cameroon are the world's first countries to sign voluntary partnership agreements (VPAs) under the EU Forest Law Enforcement, Governance and Trade (FLEGT) process. The VPAs were signed in 2008, 2009 and 2010, respectively.

Box 2.8 Asia-Pacific regional agreements

Theme 1: Forest extent and land-use change

- The Asia-Pacific Economic Cooperation (APEC) Leaders' Declaration on Climate Change, Energy Security and Clean Development (Sydney, Australia, 2007) indicates a regional aspirational goal of increasing forest cover in the APEC region by at least 20 million hectares of all types of forests by 2020.

Theme 2: Biological diversity

- The ASEAN Agreement on the Conservation of Nature and Natural Resources (1985) aims to promote the maintenance of essential ecological process and life-support systems, preserve genetic diversity, and ensure the sustainable utilisation of harvested natural resources.
- The ASEAN Declaration on Environmental Sustainability (2007) states the aims of achieving, by 2010, a significant reduction in the current rate of loss of biodiversity, conserving the rich biodiversity in ASEAN member states, strengthening efforts to implement the ASEAN Regional Action Plan on Trade in Wild Fauna and Flora, and promoting the conservation and sustainable management of key ecosystems, including forest, coastal and marine habitats.

Theme 6: Governance

The Ministerial Declaration arising from the 2001 Ministerial Conference on Forest Law Enforcement and Governance in East Asia committed countries from the East Asian and other participating regions to:

- "Take immediate action to intensify national efforts, and to strengthen bilateral, regional and multilateral collaboration to address violations of forest law and forest crime, in particular illegal logging, associated illegal trade and corruption, and their negative effects on the rule of law" (Paragraph 9)
- "Review existing domestic forest policy frameworks and institute appropriate policy reforms, including those relating to granting and monitoring concessions, subsidies, and excess processing capacity, to prevent illegal practices" (Paragraph 18).

Box 2.9 European regional agreements

Theme 3: Biodiversity

- The goal of the legally binding Bern Convention is "to conserve wild fauna and flora and their natural habitats", especially focusing on cooperation in protecting endangered and threatened species in Europe. The parties to the Convention specify their respective species in the annexes to the Convention.
- The EU's Natura 2000 network also aims to protect natural habitats and related species. Based on two directives it designates conservation areas in EU member states and establishes a legally binding protection status for them. The Council of Europe's Emerald Network of Protected Areas strives for the same goal in non-EU European countries.

Theme 6: Governance

- At the Fourth Ministerial Conference on the Protection of Forests in Europe, the European countries decided "to strengthen synergies for SFM through cross-sectoral cooperation and national forest programmes". They adopted a common approach to national forest programmes in Europe and committed themselves to developing and implementing those national forest programmes accordingly.
- In its FLEGT Action Plan the EU has set the goal of combating illegal harvesting and illegal timber trade in environment and development cooperation policies. Consequently, it adopted a regulation on a FLEGT licensing scheme for imports of timber that allows the control of timber trade with countries entering into a VPA. To date, three VPAs have been concluded, seven are in negotiation and about 15 other countries have indicated their interest in participating in a VPA. In addition, an EU regulation prohibiting the sale of illegally harvested timber in the EU and requiring operators to exercise due-diligence procedures to ascertain if products are legal is close to adoption.
- FOREST EUROPE (previously known as the Ministerial Conference on the Protection of Forests in Europe) has started a discussion on the potential added value of and possible options for a legally binding agreement on forests in Europe. A working group has been established and is preparing proposals for the next Ministerial Conference, to be held in June 2011. A group of like-minded countries in favour of a legally binding agreement has initiated the process in reaction to developments in global forest governance in recent years. As yet, however, there is no agreement to negotiate such an agreement; several signatories of FOREST EUROPE commitments are hesitant to take this step, while others are waiting to see its possible content and legal characteristics.

Box 2.10 Latin American regional agreements

Theme 1: Forest extent and land-use change

- In 2008, Central American countries completed a Regional Agri-environmental and Health Strategy 2009–2024, which was formulated by an inter-ministerial technical committee comprising the ministries of agriculture, environment and health of Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panamá. The goals of this strategy include sustainable land management, improving regional capacities for adapting to climate change, and promoting biodiversity conservation and traditional knowledge. The implementation of the strategy is led by the Inter-sectoral Council of Ministries of Agriculture, Environment and Health of Central America, supported by the Tegucigalpa Protocol (Article 16). In the context of this strategy, the Central American countries, with German support, have initiated a process of consultation to design common compensation policies for avoided deforestation.

Theme 3: Biological diversity

- In 2002 the Andean Council of Ministries of Foreign Affairs, comprising representatives of Bolivia, Colombia, Ecuador, Peru and Venezuela (although the latter is no longer a member), approved a regional biodiversity strategy (Decision 523). This strategy aims to contribute to the generation of economic development alternatives based on sustainable natural resource management and the formulation of common regional positions in international negotiations on biodiversity conservation. In 2010, the four countries of the Andean Community of Nations initiated a Regional Program of Biodiversity in the Andean–Amazon region.

Theme 6: Governance

- The EU FLEGT facility has carried out scoping missions in Ecuador, Colombia, Guyana and Bolivia to discuss possible VPAs.

2.7. Conclusion: Conflicts, gaps and synergies

This chapter has mapped the core substantive issues and actors that currently shape international forest governance. As highlighted by the initial theoretical overview of actor networks, different lenses may be used to view the social construction of international forest-related goals. Increasingly, however, the trans-governmentalist and pluralist perspectives offer critical insights into the cross-sectoral, multi-scale (e.g. global and regional) and non-state actor networks that shape global forest strategies.

Given this complexity, and the amount of time and energy this diverse array of actors invests in competing and/or cooperating in the definition of the global agenda, it is easy to lose sight of the core forest challenges that international forest governance aims to address – in other words to 'fail to see the forest for the trees'. The comprehensive mapping of the core substantive issues, we argue, is essential to bring attention purposefully and holistically back to the forests and to the communities that depend upon them.

As explained in the introduction, there is no universally agreed framework for creating a definitive map, and the landscape of key actors and goals is both dynamic and contested. Nevertheless, we argue that our assessment serves to highlight the following points:

- *An increasingly comprehensive suite of goals has emerged to guide international forest governance.*

A plethora of international goals has been agreed within each of the six broad themes discussed above. These goals may conflict at times, and there is wide variation in the level of political commitment and resources available to fulfil them. Nevertheless, their articulation within widely recognised international institutions indicates a substantial sharing of norms. These shared norms and associated aspirational goals could provide a foundation for holistic international action on forests. However, ongoing conflicts over such fundamental issues as how to define a forest, how to prioritise environmental, social and economic objectives, and whether or not there is a need for legally binding commitments have greatly constrained the translation of aspirational goals into coordinated mandates for on-the-ground action.

- *The comprehensiveness of international forest-related goals is the result of power struggles over ideas and resources involving a wide diversity of actors and institutions*.

Diverse environmental and social non-governmental organisations have played critical roles in expanding the scope of global agreements around forests, particularly in regards to issues of biodiversity conservation and human rights. These actors have also generated new institutions to by-pass stalled governmental processes and have catalysed competing efforts among the commercial private sector, thereby broadening the level of societal engagement in forest-related decision-making.

- *Many actors that play key roles in forest change lie outside the forest sector and have not been engaged in forest-related negotiations*.

Many of the greatest challenges for sustaining the world's forests lie outside the forest sector in the growing demand for agricultural products, biofuels, non-renewable materials and energy; urbanisation; and climate change. Forest-sector activities and policies interact with these other economic drivers by altering the value of forests relative to other land uses, thereby either facilitating or dis-incentivising forest conversion. Yet forest-related processes have generally failed to generate cross-sectoral communication and collaboration among the full range of producers and consumers who are driving forest change.

- *Regional and non-governmental processes provide pathways for bypassing stalled global-scale agreement*.

Global-scale processes have frequently become locked in debates over the desirability of legally binding commitments to slow forest conversion or promote SFM. Meanwhile, various regional forums and non-governmental forest certification schemes have made significant progress in framing and implementing relatively comprehensive approaches. These processes are limited, however, in their ability to address drivers outside the forest sector.

- *Greater coordination is needed and requires a widespread perception of common interest coupled with legitimate environmental and social safeguards*.

Our analysis suggests that widespread norm diffusion across a broad array of actors has occurred, although purposeful holistic coordination is currently the exception rather than the rule. The diffusion of ideas across both state and non-state actor networks at the global and regional levels is such that priorities rejected by one actor network may be taken up by another and may ultimately achieve widespread acceptance (e.g. forest certification and regional initiatives to stop illegal logging).

The forest–climate linkage appears to represent

the most significant case of cross-sectoral, global-scale coordination around forests via the incorporation of natural forests into emissions reduction targets. This linkage could incentivise substantial public and private investment in reversing deforestation by changing the economic incentives driving forest conversion. In this way, REDD+ appears to offer a potential 'win win' solution for simultaneously advancing environmental conservation and socio-economic welfare.

While the use of market-based measures to finance REDD+ may enhance legitimacy among many state and private-sector actors, it may simultaneously undermine legitimacy among others, including those lacking a market advantage or those opposed to the monetisation of the full range of forest values. The inclusion of environmental and social safeguards will be essential for achieving widespread acceptance of REDD+ and any future strategies that may emerge to incentivise and coordinate the international governance of the world's forests.

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3 Core components of the international forest regime complex

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Abstract: From the existing full set of international policy instruments on forests, eight core components are identified and submitted to two differing assessments. The first (consistency assessment) uses a policy design approach to match the core components with their goals, policy tools, target group preferences and justifications for the choice of goals and policy tools. The second (compatibility assessment) examines the institutional inter-linkages of the core components. Both assessments reveal a series of challenges for international forest governance that can, however, be turned into opportunities. It is proposed that the coordination of and cooperation between the representatives of forest and non-forest users be strengthened at the national, regional and international levels, under the shared overarching idea of sustainable forest management, by means of 'forests+' policies. Forests+ policies go beyond the forest sector and acknowledge both the inter-sectoral character of forest policymaking and the importance of international regimes that have a decisive impact on forests but for which forests are not the main focus of attention.

Keywords: International forest regime, international forest governance, international policy instruments on forests, international forest policy, policy design approach, institutional inter-linkages, hard and soft law on forests, REDD+, forests+ policies.

3.1 Introduction

Chapter 2 gives a synopsis of the existing set of international forest governance arrangements (the 'international forest regime complex'), which is a hybrid mix of hard, soft and private international law. These arrangements are highly fragmented and characterised by a multiplicity of state and non-governmental actors and institutions. In these respects they resemble the larger set of international environmental governance arrangements, of which they form a significant part. For the sake of reducing complexity, this chapter identifies a subset of the forest governance arrangements as *core components* of the full set of international policy instruments on forests. Although they pursue different goals, such as sustainable forest management (SFM), the enhancement of forest biodiversity and the mitigation of climate change by reducing deforestation and forest degradation, the core components all deal with forests and all involve substantial policymaking for the sustainable development of forests and people.

In order to assess the role of a core component in international forest governance arrangements, two questions are addressed. The first is: Are the internal goals coherent and the means to achieve them consistent? To interrogate this question the policy design approach is applied. This theoretical approach matches the core components with their goals, policy tools, target group preferences and justifications for the choice of goals and policy tools. Since the core components pursue different goals, a second question arises: Are the relationships between the core components neutral, synergistic or conflicting? This question is answered by examining the institutional inter-linkages of the core components. In addressing both questions, the potential of these core components to take on a more deliberative role in coordinating global forest governance is analysed.

The chapter is divided into four sections. The

core components are identified in section 3.2. As there are both legally binding and non-legally binding core components, the advantages and disadvantages of this aspect are discussed in general terms in section 3.3. Section 3.4 assesses the individual core components by means of the policy design approach and section 3.5 assesses the compatibility of the core components. The key findings of both assessments on the challenges and opportunities for global forest governance are presented in section 3.6.

3.2 Identification of the core components

The Global Forest Expert Panel (GFEP) defined the core components of the international forest governance arrangements as international multilateral intergovernmental treaties and agreements which directly address forests, either focusing on SFM or more specific goals, such as biodiversity conservation or climate change mitigation; and have achieved, or have the potential to achieve, significant effects on forests. GFEP members generally agreed on the policy measures crucial for resolving economic, ecological and social conflicts in forests that have a transboundary or 'international commons' component. There is, however, no inter-subjective approach for judging the significance of any given measure at a global level. Therefore, at its first meeting in December 2009 in Vienna the GFEP agreed to leave this decision to a sub-group*, which subsequently proposed the following eight policy instruments as core components of the international forest regime complex:

- *Non-legally Binding Instrument on All Types of Forests (NLBI)*
- *International Tropical Timber Agreement (ITTA)*
- *forest certification schemes*
- *world trade agreements (WTAs)*
- *forest law enforcement, governance and trade (FLEGT)*
- *Convention on Biological Diversity (CBD)*
- *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*
- *the climate change regime.*

*) The sub-group comprises the following GFEP members: Samuel Assembe-Mvondo, Benjamin Cashore, Steven Bernstein, Peter Glück, David Humphreys, Karl Hogl and Jeremy Rayner.

This selection is intended to be neither exhaustive (due to constraints in space and capacity) nor definitive. However, it was not challenged by the GFEP in subsequent sessions.

The core components can be grouped into legally binding instruments ('hard' law) and non-legally binding instruments ('soft' law). The relationship between hard law and soft law has great practical relevance to the international forest regime complex.

3.3 Advantages and disadvantages of hard and soft law

The international norms and rules that have been developed as tools of global governance can be placed on a continuum from traditional top-down, hierarchical hard-law treaties to the vaguest voluntary soft-law mechanisms (Karlsson-Vinkhuysen and Vihma 2009). In the forest sector, there exist hard-law regulations with (e.g. WTAs) and without (e.g. CBD) legal sanctions as well as a variety of soft-law agreements characterised by a lack of legal sanctions. The most important international examples of the latter are the Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (known as the Forest Principles) and the NLBI (Auer et al. 2005). The failure at the state-to-state level to successfully negotiate an international convention on forests has no doubt paved the way for the emergence of 'soft', voluntary processes such as certification.

3.3.1 Definition of 'hard' and 'soft' law

Definitions of *hard law* tend to focus on authority. According to Abbott and Snidal (2000), hard law relies primarily on the authority and power of the state. This point is also emphasised by Kirton and Trebilcock (2004: 9), who state that hard law relies "primarily on the authority and power of the state – in the construction, operation, and implementation, including enforcement, of arrangements at international, national, or sub-national level". Accordingly, the essence of hard law is legally binding obligation. Three dimensions are sometimes considered when evaluating the 'hardness' of legal commitments: *precision*, *obligation* and *delegation* (*of authority*) (Abbott and Snidal 2000). Each of these dimensions may vary considerably in different national settings.

Various authors have explored the role of *soft-law* approaches and standard-setting, not least in the forest sector. Some regard soft-law approaches as controversial, as formal international law remains largely

absent and competing standards strive for dominance (Cashore 2002; Cashore et al. 2004, 2005; Kirton and Trebilcock 2004). Nonetheless there is agreement that soft law at the global level extends downward from the commanding, highly legalised heights of hard law to embrace specialised agencies of the United Nations (UN) and the non-binding Forest Principles, voluntary standards and forest certification. As a legal concept, soft law can be broadly defined as "rules of conduct which, in principle, have no legally binding force but which nevertheless have practical effects" (Mörth 2004: 6); it is located "in the twilight between law and politics"(Thürer 2000). A somewhat more actor-oriented definition is supported by Kirton and Trebilcock (2004: 9), who state that soft law "relies primarily on the participation and resources of non-governmental actors in the construction, operation, and implementation of a governance arrangement". The essence of these definitions is that soft law can be classified procedurally as *non-legally binding rules* and that it comes in many varieties. The meaning of soft law and its applicability must therefore be considered contextually; the boundaries between 'hard' and 'soft' law are, in practice, often blurred and difficult to differentiate.

3.3.2 Positive and negative traits of hard-law and soft-law policy instruments

Even though command-and-control steering has sometimes succeeded in dampening environmental destruction, it has limitations as a solution to complex, systemic environmental problems such as climate change or the decline of biological diversity. Hard law can be *rigid*, *slow and inflexible* to changes in society and often involves a *non-inclusive*, *top-down* approach that favours *bureaucratic*, *hierarchical* systems (Gunningham and Grabosky 1998). In specific contexts hard law has direct advantages to softer approaches, offering *the legitimacy*, the strong *surveillance and enforcement mechanisms* and the guaranteed *resources* that soft law often lacks. Hard-law instruments are also often subject to *more thorough negotiation and preparation* which, unless substantive targets have been watered down, make behavioural change and problem-solving more likely (Skjaerseth et al. 2006).

The soft-law approach offers many advantages. Optimistic authors argue that soft law has value in making and enforcing new norms and standards and as an effective means for direct civil-society participation in global governance (cf. Kirton and Trebilcock 2004). In particular, it is claimed that soft law has greater *flexibility* with respect to participation and sectoral emphasis. Soft law can also serve as a *precursor* and proving ground for hard law and can therefore be a useful intermediate step towards hard-law commitments (Tollefson 2004). Soft law can strengthen hard law by enhancing implementation, and ambitious norms can be achieved more easily in soft-law settings than in legally binding ones (Skjaerseth et al. 2006). In some circumstances (e.g. forest certification), soft-law norms can be more precise than those of hard law (e.g. Cashore 2002; Cashore et al. 2005). This suggests that soft law could have a comparative advantage in producing *new regimes* with innovative principles and norms, while hard law can be used to add the effective enforcement mechanisms over time.

Nonetheless, the soft-law approach comes with its own challenges. Soft law can lead to uncertainty because actors remain unclear about the costs of *compliance* (or their absence). Collaborative, 'softer' processes can also be *time-consuming* and *costly*, and democratic participation might be compromised when particular stakeholders are excluded. Because of the lack of legal sanctions, a certain amount of voluntary compliance is needed, and the question of *legitimacy*, especially in practical applications (e.g. forest certification), remains unclear (Bernstein and Cashore 2004; Kirton and Trebilcock 2004; Tollefson 2004).

This suggests that securing sustainability requires a flexible and open use of instruments, both hard and soft. Given the complexity and multiple causes of current global forest problems, a *portfolio* of all available policy instruments should be applied, taking advantage of mutually supportive steering instruments, processes, organisations and actors in the international arena and taking into account differences in national policy contexts. According to this view, hard law and soft law should be seen as complements rather than competitors because they serve different purposes – as long as soft law does not crowd out hard law when the latter is necessary.

3.4 Consistency assessment

3.4.1 Policy design approach

The policy design approach allows the analyst to deconstruct a policy output into a set of attributes and to reconstruct and assess the 'intervention logic' of a programme (deLeon 1990; Linder and Peters 1984; Schneider and Ingram 1997; Weimer 1992). On this basis the core components of the international forest regime complex are assessed here by matching the core components with the attributes of the policy design approach. The attributes are as follows:

- *policy goals*;
- *policy tools* – the means proposed to achieve the desired ends;
- the preferences and behaviours of *internal target groups* – the public or private actors (e.g. states) responsible for implementing the instruments;
- the preferences and behaviours of *external target groups* – those actors whose behaviour the forest policies intend to influence (e.g. forest users and consumers of forest products);
- *rationales* – the expressed justifications for the choice of goals and policy tools, including the causal beliefs that underpin them and the theoretical connections between attributes.

By reviewing these attributes of the core components of the international forest regime complex it is possible to determine the extent to which the policy goals of each component are internally coherent; the policy tools chosen to achieve the goals are consistent with each other; and the policy instruments themselves conform to the general preferences of the international target groups.

3.4.2 Non-Legally Binding Instrument on All Types of Forests

The international forest deliberations

The NLBI is the *latest international soft-law agreement on forests*, the first being the Forest Principles and Chapter 11 of Agenda 21, both of which were agreed at the UN Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992. The lack of a hard-law instrument since UNCED is particularly remarkable given that several states, including the United States of America, proposed the negotiation of a global forest convention in the preparatory negotiations for UNCED between 1990 and 1992. At the time of UNCED, a legally binding forest regime was regarded by many developed states as desirable because it would have the potential to improve the collective welfare of participants by reducing the adverse transboundary consequences of deforestation and forest degradation. Malaysia and other developing countries, however, refused to negotiate a convention, referring to their sovereign right to exploit their forests (Davenport 2005; Humphreys 1996). In 1993, however, Malaysia became one of the leading proponents of a convention that would compensate tropical forest states for the opportunity costs of implementing SFM. Nevertheless, in the aftermath of UNCED, the Intergovernmental Panel on Forests (IPF), which convened from 1995 to 1997, could not agree on either the need for a convention or financial assistance for the implementation of forest policies in developing countries (Dimitrov et al. 2007). In 1997 the United States officially switched from a stance that was pro a forest convention to a stance that was opposed to one. In the subsequent Intergovernmental Forum on Forests (IFF), which convened from 1997 to 2000, Brazil and the United States led an anti-treaty coalition with the effect that delegates decided to forego a legally binding instrument. Instead, they established another forum for non-binding discussions, the UN Forum on Forests (UNFF), which, according to Dimitrov et al. (2007: 243), "they explicitly deprived of a policymaking mandate".

There are several possible explanations for the failure of negotiations on a worldwide forest convention. Lipschutz (2001) argues that national forest practices can be regulated through trade instruments because they directly relate to commerce. Humphreys (2006) sees the main reason for the non-regime in the prevailing anti-regulatory principles of neo-liberalism, global capitalism and free trade. Dimitrov et al. (2007) point to the absence of reliable scientific knowledge about the transboundary impacts of deforestation and forest degradation and also suggest that unilateral forest policies can effectively address forest-related issues internally. Davenport (2005) uses an economic analysis to argue that the United States ceased to support a convention because it perceived that the economic costs of doing so would exceed the economic benefits.

The Forest Principles lay the foundations for two *principles* that have since dominated negotiations on forests and which are also part of the NLBI: (i) the sovereign right of nation states to exploit their forest resources according to their own environmental policies, linked to the responsibility to avoid transboundary harm; and (ii) the sustainable management of forest resources and forest lands to meet the social, economic, ecological, cultural and spiritual needs of present and future generations. In addition, the NLBI contains the principle of common but differentiated responsibilities of states, as also set out in Principle 7 of the Rio Declaration on Environment and Development and Article 3.1 of the UN Framework Convention on Climate Change (UNFCCC).

Focus on national forest programmes

Under the overarching goal of SFM, the NLBI establishes objectives and policies to promote SFM at the international, regional and national levels. Together with its associated work programme, the NLBI prescribes and gives guidance for the implementation of four *global goals* set out in UNFF Resolution 2007/40 of 17 October 2007. The global goals are (cf. chapter 2): (i) reverse the loss of forest cover; (ii) enhance forest-based economic, social and environ-

mental benefits; (iii) increase significantly the area of protected forests worldwide and other areas of sustainably managed forests, as well as the proportion of forest products from sustainably managed forests; and (iv) reverse the decline of official development assistance for SFM.

In order to achieve these goals the NLBI recommends that member states apply a mix of regulatory, financial and information *policy tools* with a distinct focus on national forest programmes (NFPs) based on criteria and indicators for SFM. NFPs are a commonly agreed but novel framework for SFM which is applicable to all countries and to all types of forest. NFPs strive to render politics on forests more rational, more oriented to the long term, and better coordinated (Glück et al. 2003).

The *rationale* for using NFPs to pursue the NLBI's four global goals at the national level is, in principle, to make states accountable to other states for the implementation of their NFPs (Humphreys 2004). As the NLBI is a form of soft law, however, no state has any obligation at all to take action that is consistent with it.

The influence of the proposed tools, in particular NFPs on member states (*internal target groups*) depends on these states' preferences and behaviour towards forests. Conditions for the formation and updating of NFPs are more favourable in states with a participatory policy style (Glück and Voitleithner 2002) because NFP processes require the establishment and maintenance of a climate of mutual trust in which participants (*external target groups*) are prepared to remain at the negotiation table and to regard the dialogue on forest-related issues as an iterative and open-ended process (Glück et al. 2005). Such a climate allows all actors with a stake in forests to be embraced, not only within the forest sector but also beyond it. However, empirical evidence suggests that the success of the process depends on factors such as land tenure, legal regulations, financial incentives and political culture (Glück et al. 2003; Humphreys 2004).

To sum up, the NLBI strengthens the principle of national sovereignty and allocates the responsibility for achieving global objectives i–iii to member states. It recommends NFPs, which represent a paradigm shift in forest policy from traditional to new forms of governance; they work best in states where the supporting conditions of new governance already exist. Simultaneously, NFPs could provide the backbone for implementing an international legally binding instrument on forests, should one be agreed (Glück et al. 1997; Humphreys 2004). Regarding the accomplishment of global objective iv, it remains to be seen whether member states are able to mobilise new financial resources from their own or other sources.

3.4.3 International Tropical Timber Agreement

The International Tropical Timber Agreement (ITTA) is actually a series of agreements that follows a specified cycle. The first ITTA was signed in 1983 and entered into force in 1985. A second ITTA was negotiated in 1994 and entered into force in 1997. A third ITTA was agreed in 2006.

According to Article 1 of the ITTA, 2006, the main *goal* of the Agreement is "to promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and to promote the sustainable management of tropical timber producing forests". To achieve this goal, a mix of economic and information *policy tools* are used, focusing on, among other things, the promotion of sustainable development and poverty alleviation, the improvement of forest law enforcement and governance, the encouragement of forest certification, and the promotion of tropical timber and non-timber forest products. The underlying *rationale* is to provide information and positive incentives rather than sanctions. For this purpose ITTA gathers tropical timber-producing and consumer countries around the same table. The ITTA creates the International Tropical Timber Organization (ITTO), which comprises two groups of members – tropical timber 'producer' member countries and tropical timber 'consumer' member countries. The highest authority of ITTO is the International Tropical Timber Council, which consists of all the members of the Organization. ITTO is responsible for the administration of the ITTA.

Tropical timber trade versus SFM

The ITTA, 1994, was the first international legally binding instrument to use 'sustainable forest management' terminology. In this respect, Humphreys (2004) argues that the evolution of the ITTA can be attributed not only to the members but also, to some extent, to the influence of non-governmental organisations (NGOs) on ITTO.

ITTO cannot be understood without examining its voting structure, which critics argue has often stymied normative change. It is based on the producer and consumer groups, each of which has a total of 1000 votes. The votes of individual consumer members are decided on the basis of their share of tropical timber imports, while the votes of individual producer members are decided by a complex formula that takes into account each member's share of tropical timber exports and its forest area. Among the producer members, the first 400 votes are reserved equally for countries from Africa, Asia-Pacific, and Latin America and the Caribbean. Another 300 votes

are divided between producer members on the basis of their relative share of tropical forest cover. The final 300 votes are apportioned according to the average of the values of each producer member's net exports of tropical timber during the previous three years. It is often argued by some environmental NGOs that this voting structure, which is used by the International Tropical Timber Council when making decisions, limits the promotion of SFM because while forest size is a consideration, most votes are allocated according to a country's share in the international tropical timber trade.

Nevertheless, ITTO has developed a series of SFM tools and technical norms which it places at the disposal of its member countries. The important methodological tools developed by ITTO include management guidelines, principles, criteria and indicators for SFM (ITTO 2006). ITTO also plays an important role as a sponsoring body by financing projects and studies in various tropical-timber producer member countries towards the goals of promoting the timber trade and SFM. To some extent, the effectiveness of this instrument can be judged by its impact on the behaviour of its members. In an assessment of the progress that had been made towards SFM in tropical forests since the first such assessment in 1988, the former Executive Director of ITTO states: "The data indicate that significant progress has been made since 1988 towards the sustainable management of natural tropical forests, but the extent of such progress remains far from satisfactory" (ITTO 2006: 3).

3.4.4 Forest certification schemes

Forest certification emerged in the 1980s as an economic *policy tool* for ensuring SFM at the management unit level amid increasing concern about global forest degradation and questions about the effectiveness of boycotts and intergovernmental processes in tackling the problem (Cabarle et al. 1995; Poore 2003). ITTO's unwillingness to support NGO proposals for a sustainable timber labeling system led a coalition of actors to conclude that such a system would operate better as a private initiative (Gale 1998; Humphreys 1996: 74–75). This opinion strengthened as preparatory meetings for UNCED ended the hopes of developed countries for a binding forest convention. All the while interest was growing in finding positive incentives for improved management rather than the negative incentive of boycotts, which some argued exacerbated forest degradation by inducing shifts to other land-uses, such as agriculture (Cabarle et al. 1995; Varangis et al. 1993). Finally, certain governments saw certification as a policy tool that could substitute for legislation intent on improving forest management in other countries, since certification appeared less likely to being ruled illegal under the General Agreement on Tariffs and Trade (GATT; Bartley 2003).

Two approaches to forest certification

Two main approaches to forest certification have emerged. The Forest Stewardship Council (FSC) was launched in 1993 by a coalition of business and non-governmental actors seeking to advance the goal of improving forest management worldwide (Elliott 2000; Elliott and Schlaepfer 2001; Gulbrandsen 2004; Synnott 2005). The FSC coordinates an array of independent certification activities, including the Rainforest Alliance's SmartWood programme and attempts by retailers and publishers to trace and ensure the sustainability of their fibre supplies. The FSC is governed by a general assembly that since 1996 has comprised three membership chambers – social, environmental and economic – each holding one-third of voting rights, with geographical balance between the global north and south (FSC 1999; Synnott 2005). Day-to-day operations are run by a secretariat, which reports to an elected nine-member board and carries out the membership's directives and the board's strategic plans.

A second approach to certification is the development of country-level certification schemes, which emerged to pre-empt regulation and in reaction to the FSC, which many forest companies, forestland owners and governments saw as a threat because of its standards and the decision-making power it granted to social and environmental interests (Cashore et al. 2004, 2006; Ghazali and Simula 1996; Gulbrandsen 2004). Country-level programmes were also endorsed by an ITTO-commissioned report, which concluded that an international forest certification programme was unnecessary given the small proportion of timber entering global trade (Poore 2003). This support and the above-noted emphasis on NFPs following UNCED (Elliott 2000: 50; Humphreys 1996: 138) were the foundations of numerous national certification initiatives.

Many of these country-level initiatives were consolidated as a global substitute for the FSC, particularly after 2002 when the Programme for the Endorsement of Forest Certification (PEFC), which was established (as Pan European Forest Certification) in 1998, broadened its acceptance criteria (Auld 2009: 268). The PEFC is governed by a general assembly comprising representatives of endorsed national schemes, with voting power ranging from one to four votes on the basis of members' annual harvest volumes. By early 2010, 34 schemes held PEFC membership, 28 of which were officially endorsed by the PEFC. Initially, supportive organizations could

be extraordinary members (with no voting rights). In November 2009 the PEFC introduced membership for international stakeholders with the same rights as national-scheme membership but only one vote per member; in aggregate, the vote of international stakeholders cannot exceed 50% of the assembly's total votes. A 2–10 member elected board, supported by a secretariat, oversees the PEFC's overall operations (PEFC 2009).

Standards-setting and auditing

As policy tools, both the FSC and the PEFC target forest-product companies and forestland owners along the market's supply chain (external target groups) with the aim of influencing and improving forest management. To do this, the programmes set standards for the social and/or environmental impacts of the production and manufacturing processes and require product-tracking through to the final consumer. The FSC's standards are specified at two levels. Its international principles and criteria cover, among other things, tenure and use rights and responsibilities; indigenous peoples' rights; community relations and workers' rights; the use of forest products and services; maintaining biodiversity and high-conservation-value forests; forestry planning, monitoring and assessment; and the planning and management of plantations. Indicators and verifiers are developed locally through national (or sub-national) stakeholder processes and must be endorsed by the FSC board. In regions without endorsed standards, an accredited certifier may develop a 'generic' assessment standard (Evison 1998). Requirements for this process have recently been updated to increase transparency and stakeholder engagement (FSC 2009).

Under the PEFC, schemes must develop local standards that fit within the structure of the relevant intergovernmental criteria-and-indicator definitions of SFM. The process must be open to relevant parties, although forestland owners are considered the appropriate initiator of a standards-setting process (PEFC 2006). Both the FSC and the PEFC cover similar forest management issues, although the FSC generally has more stringent requirements and restricts certain activities, such as the use of genetically modified organisms, that are permitted by PEFC schemes. Variations within the FSC and PEFC programmes make blanket comparisons difficult (McDermott et al. 2008, 2009).

To provide incentives for participation, both the FSC and the PEFC have on-product labels to enable product differentiation and possible price premiums, although in practice premiums have been less widespread than some hoped for or expected (Overdevest and Rickenbach 2006). The FSC began by only labeling products with 100% FSC-certified content (Synnott 2005). Gradual changes have reduced the percent-thresholds and introduced new rules for acceptable non-FSC content, such as recycled content (Auld 2006; Cashore et al. 2004; FSC 2004; Meidinger 2006). Tracking requirements under the PEFC are now very similar to those of the FSC, permitting either physical separation or percentage methods and specifying similar procedures to exclude controversial sources, particularly illegal timber (PEFC 2005). To ensure credible claims, both programmes require applicant operations be certified by an independent inspection audit. However, oversight of these certifiers, known as accreditation, does differ between the two programmes. The FSC initially performed accreditation itself, but in 2006 it created an independent organization, Accreditation Services International, to provide this service (Auld 2009). In contrast, PEFC schemes rely on the accreditation services provided by state-sanctioned bodies (Meidinger 2006).

3.4.5 World trade agreements

The post-Second World War international trade regime has the broad *goal* of advancing trade liberalization. The *rationale* for this goal is the belief that a rule-based, predictable agreement on trade is in the interest of all due to its benefits in enhancing growth and welfare. As a result, talks among states have long focused on this broad policy goal. After failed attempts to form an International Trade Organization through the Havana Charter (UN 1948), attention shifted to GATT, which was signed by 23 contracting parties (internal regulatory targets) in October 1947. This agreement was superseded by GATT 1994 and the creation of the World Trade Organization (WTO), which commenced operations on 1 January 1995 after the eight-year Uruguay Round negotiations (WTO 2008; Barbier 1996). At its formation the WTO had 123 contracting parties ('members') and the liberalization agenda included anti-dumping measures, non-tariff barriers, services, and intellectual property rights (WTO 2008). As a policy tool, the WTO introduced a stronger dispute settlement procedure, with binding decisions and a need for consensus among members to annul a settlement decision, which supplanted the past approach where a single party could block it. Parties to the dispute are also allowed to appeal for a review by the Appellate Body (Article 17, Annex 2) (Rao 2000). Together, these changes have given judicial decisions more influence over the development of trade law, especially since normal negotiations have slowed as developing countries have gained bargaining power (Goldstein and Steinberg 2009: 219–221).

Relevance to forest product trade

GATT 1994 includes several *policy tools* relevant to the trade of forest products. The Uruguay Round ushered in significant commitments to tariff reductions (WTO 2008). Developed-country members committed to reducing tariffs on most forest products, with a complete phasing out of tariffs on pulp and paper products in 8–10 years. Some members also committed to eliminating tariffs on furniture imports and there was a general agreement to reduce tariff escalation (the practice of setting higher tariffs for manufactured versus primary products). Additional commitments were made to replace preferential treatment for certain countries (most-favoured-nation status) with bound tariff rates – a ceiling rate that if exceeded would justify retaliatory trade sanctions (Barbier 1996).

The Uruguay Round also introduced the Agreement on Technical Barriers to Trade (TBT), which extended an agreement on the issue reached by 33 GATT contracting parties in the late 1970s (WTO 2005). The TBT seeks to eliminate technical regulations – mandated rules for product size, design or other characteristics – and associated standards that serve protectionist aims, parsing these from rules with legitimate aims such as the prevention of illegal or deceptive practices and the protection of environmental and human health (Barbier 1996). With these legitimate goals, the TBT requires member states to develop policies that are non-discriminatory and least trade-restrictive (Article 2.2) and to notify and consult when developing new technical regulations (Article 2.9), giving flexible timelines for enforcement where appropriate (Articles 2.10–2.12). It also promotes harmonisation across technical regulations (Article 2.6) and requires members states to use "relevant international standards" if they "exist or their completion is imminent," with some exceptions where local circumstances would reduce effectiveness (Article 2.4). In the forest sector, many technical regulations, such as building codes and grading rules, potentially fall under the TBT definition (Barbier 1996). Yet it is still uncertain whether the TBT definitions (TBT Annex 1) will cover non-product-related production and processing methods, as advanced by certification schemes, or whether these standards will be covered by GATT's requirements to treat like products the same (Article III) and its general exceptions for health and safety considerations (Article XX) (Bernstein and Hannah 2008). The possible applicability of the TBT to forest certification schemes is likely to remain unclear unless a WTO member brings a case against such schemes before a WTO dispute resolution panel. The provision requiring deference to existing or nearly completed international standards will also have relevance for considering how certification systems will be viewed if a TBT complaint is ever raised (Auld et al. 2008; Bernstein and Hannah 2008).

The Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures, also a product of the Uruguay Round, seeks to eliminate protectionist and unscientific restrictions guised as policies aiming to protect against invasive species, pests and pathogens (WTO 1998). SPS measures received limited attention before the Uruguay Round, which allowed countries to create complex barriers to imports justified as SPS measures and led to frequent trade disputes (Barbier 1996).

One such dispute arose over the pinewood nematode. Acting on fears that this pest would infect European forests, the European Community banned the import of softwood lumber from Canada, the United States, Japan and China unless heat-treated or kiln-dried and accompanied by a government-approved phytosanitary certificate, a restriction considered by many softwood producers to be a non-tariff barrier (Cohen et al. 2003). The SPS agreement aims to address these disputes. It calls for, among other things, the harmonisation of standards, encouraging members to work within the Codex Alimentarius and the framework of the International Plant Protection Convention to advance international standards on SPS measures (Article 3.5).

With both the TBT and SPS agreements, members have responsibility for ensuring that sub-national governmental bodies and non-governmental bodies are compliant (external target groups). This, too, has raised questions about how voluntary forest certification schemes will be viewed in relation to these requirements (Bernstein and Hannah 2008; Rotherham 2003). The SPS agreement also presents challenges for the efforts of members to manage threats from invasive species, pests and pathogens. The requirement for a scientific risk analysis (Article 5) burdens the importing country with generating and supplying the scientific evidence to justify standards of protection above those agreed internationally (Clarke 2004). Existing trade law affects forest-products trade in other ways. For example, the Agreement on Subsidies and Countervailing Measures delineates acceptable subsidies and countervailing actions when unacceptable subsidies exist (WTO 2008). Canada used this agreement to challenge the countervailing measures of the United States in the most recent softwood lumber dispute (Zhang 2007). Beyond the WTO, there are bilateral and regional trade agreements, customs unions and common markets that further affect the trade of forest products (Rao 2000). These are beyond the scope of this review.

3.4.6 Forest law enforcement, governance and trade

Although illegal forest practices are a global issue, most progress in addressing them at an international level has been made in Europe. Historically, the basis for the European Union (EU) Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan is the Council Resolution of 15 December 1998 on a "Forestry Strategy for the European Union". This non-binding instrument defines the policy basis for a new forest strategy within the EU. However, the EU FLEGT Action Plan has emerged as one of the main thrusts of the EU Forest Action Plan 2007–2011, which was adopted by the Council on 30 May 2005. The EU FLEGT Action Plan is an expression of policy commitments made by the EU, its member states and producer partner countries within the framework of the G8 Action Programme on Forests. It has led to the organisation of regional ministerial conferences on the application of forest laws, regulations and governance, with World Bank support (EFI 2009).

Voluntary partnership agreements

The overall *goal* of the EU FLEGT Action Plan is to promote good governance in the forest sector and to reduce deforestation by ensuring that European companies buy timber only from producer (tropical) countries that comply with the ecological, social and economic requirements stipulated in their own forest laws. The plan therefore seeks to develop and promote market security to ensure that only legally produced timber is imported into the EU by encouraging firms and consumers to pay the real cost of timber production in keeping with laws, rather than seeking only to minimise prices. For this purpose the EU is currently preparing voluntary bilateral agreements ('voluntary partnership agreements' – VPAs) with countries that export tropical timber to its member states as appropriate *policy tools*. The underlying *rationale* is to ensure the rule of law. However, many stakeholders involved in forest exploitation, such as exporter and buyer companies, consumers, NGOs and local people, are concerned about the successful or failed implementation process of VPAs. Although VPAs are considered voluntary for export countries, they commit the EU and signatory countries to contributing to the improvement of forest governance by establishing efficient systems for regulating forest practices and for tracing timber and its by-products, and issuing authorisation/licensing schemes for timber exports to EU countries (EFI 2009).

After signing a VPA, the two parties (i.e. the EU and a tropical- timber-exporting country) have a period of time (a "transitional phase") in which to set up systems and policy and technical tools to ensure the proper application of the provisions of the VPA. The time factor is important because as a bilateral agreement between two subjects of international law, VPAs must comply with domestic procedures put in place by governments for the ratification of similar international instruments, notably by tabling them before the national parliament. As of August 2010, Congo, Ghana and Cameroon had signed VPAs. The export authorization provided by VPAs is based on standards derived from the national laws and regulations of each partner tropical- timber-exporting country. Thus, agreements focus mainly on environmental protection, rules governing the harvesting of species, the payment of fees and taxes, conditions for timber processing, standards for the transportation of products, and local community rights.

Strictly speaking, VPAs do not constitute an international timber trade regime. First, their goal is to combat illegal timber trade. In doing so they may help reduce deforestation and protect some species threatened with extinction due to overexploitation. Second, VPAs differ from one another in both substance and procedure because their contents are based on diverse forest legislations (although the key principles of forest sustainability may be the same for all countries). Thus, they may also contribute to the fragmentation of the rules governing international timber trade. Third, the impact of any given VPA on the fight against illegal forest exploitation will be limited because, in line with the principles of international law, a bilateral agreement does not have a direct effect on non-parties (Daillier and Pellet 2002). In other words, the effect of VPAs will be weak where tropical timber is traded by parties not subject to a VPA. For example, it is difficult to verify the origin of tropical timber used in a piece of furniture imported by a European consumer from a non-party. Compliance with forest legality is just one step in the long road to SFM; indeed, it constitutes a minimum requirement (Cerutti et al. 2008). In effect, the verification of legality ensuing from VPAs alone may be inadequate if the desired objective is to ensure sustainability. VPAs can still contribute to the fight against illegal activities and deforestation, albeit in limited fashion.

In an attempt to pre-empt certain weaknesses in the FLEGT/VPA approach, the EU has decided to supplement it by adopting a special illegal timber regulation. This regulation, which is currently under preparation, is expected to help tropical timber importers to reduce the risks of illegality in their international transactions, imposing on them the obligations of resources, results and accountability. The EU's illegal timber regulation will have a similar effect to the Lacey Act in the United States, which was amended in 2008 to (among other things) prohibit commerce in plants, including timber products,

that are harvested illegally in any country. Under the Lacey Act, importers must declare the species and origin of harvest of all plants. Penalties for violations include forfeiture of goods and vessels, and imprisonment.

In short, the aim of current international and national initiatives against illegal logging (VPAs and the Lacey Act, or other initiatives as well) are to hold not only states, but also the perpetrators and major beneficiaries of economic crimes – such as multinational corporations accountable and liable for illegal transactions.

3.4.7 Convention on Biological Diversity

As noted in chapter 2, the CBD is built around three overarching and interrelated *goals*: i) the conservation of biological diversity; ii) the sustainable use of its components; and iii) the fair and equitable sharing of the benefits arising from the utilisation of genetic resources. The CBD was the first global agreement to address these three goals in an integrative manner (Rosendal 2003). It also strives to reconcile the development imperatives of the developing countries with the interests of developed countries in accessing and conserving biological diversity (cf. McGraw 2002). In doing so the CBD rests on the principle of the sovereign rights of states over their biological resources, also reaffirming their sovereign authority to determine access to their resources (Article 15).

The overarching goals are further defined by a number of more specific objectives, as set out in the Convention or agreed upon at meetings of the Conference of the Parties (COP) to the CBD: they include goals to conserve ecosystems and viable populations of species through in-situ and ex-situ conservation, to respect and preserve indigenous knowledge, and to cover developing countries' incremental implementation costs (CBD Article 20). The parties to the Convention (states) comprise both the internal and external target groups of the CBD's major policy tools. The COP decides on obligations; responsibility for implementation rests largely with each individual party.

A cross-sectoral strategy approach

In general terms, national biodiversity strategies, plans or programmes (NBSAPs) and the programme of work (POW) on forest biological diversity, including, in 2002, an expanded POW, are the main CBD *policy tools* that directly address forests and forest management. The Convention's Article 6 requires parties to develop NBSAPs that integrate the CBD's goals into sectoral or cross-sectoral policies, facilitated by consultative mechanisms for implementation, monitoring, evaluation and periodic revision (UNEP/CBD 2002). The COP stresses that NBSAPs constitute a cornerstone of CBD implementation (ibid.). National formulation and implementation is supported by guidelines that provide procedural rules and guiding objectives but leave broad areas of discretion. No sanction mechanisms are provided for cases of non-compliance.

As of May 2010, 170 of the 193 parties had developed NBSAPs (CBD Secretariat 2010), indicating considerable success in the spread of the strategy approach. However, progress in implementation has remained comparatively poor. In-depth reviews indicate that NBSAPs have been far less successful in effectively integrating the CBD's objectives into national policies; they have also detected a lack of problem awareness, capacities, political commitment and horizontal and vertical coordination (UNEP/CBD 2007a, 2007b, 2007c).

Responsibility for the implementation of the POW rests with the parties, who are expected to do so on a voluntary basis "in the context of their national priorities and needs" (UNEP/CBD 2002). An in-depth review in 2006 indicated that national implementation is often hampered by a range of obstacles, such as a lack of data and capacities, and insufficient cross-sectoral coordination (UNEP/CBD 2007d). As a consequence, the COP requested the CBD's Executive Secretary to increase collaboration with the UNFF Secretariat and members of the Collaborative Partnership on Forests (CPF, see chapter 2) for more effective implementation (ibid.).

More generally, national implementation of CBD obligations is to be facilitated by global-level coordination mechanisms such as the Joint Liaison Group of the Rio Conventions, the CPF and the Biodiversity Liaison Group (cf. Wildburger 2009). Most of the conventions and processes involved have been under way for decades. However, the need to enhance coordination is still high on the agenda, seemingly indicating persistent coordination problems.

Another tool for facilitating implementation is national reporting (Article 26), which is the only CBD mechanism for monitoring the national-level implementation of NBSAPs and the POW. Reports are to be delivered at approximately three-year intervals, based on COP guidelines. Again, no sanctioning mechanisms are provided for non-reporting. More importantly, no formalised review procedures have been established to date, although aggregated reviews are discussed in meetings of the COP and national reports are made available online. Besides regional workshops, few routines exist for facilitating mutual learning. The CBD seems to suffer from a lack of institutionalised forums for learning from national-level experiences.

While the POW is necessarily more forest-centred than NBSAPs, the two policy tools are synergistic, with similar overarching goals; the POW can be seen as complementary to the thematically broader NBSAPs. In fact, parties are urged to incorporate the objectives and activities of the POW into NBSAPs as well as into NFPs (COP Decision 6/22).

Demanding prerequisites

It is clear from the design of NBSAPs and the POW that the CBD strongly relies on a voluntary, national-level, cross-sectoral and inclusive strategy and policy planning approach for the integration of its goals into national forest policymaking. Overall, the CBD is not an instrument that, in a strict sense, regulates the conduct of its target groups: obligations are imprecise (i.e. there is ambiguity with respect to the conduct required) and there is no delegation of authority to third parties for interpreting and implementing the Convention. Although outwardly an example of hard international law, the CBD elaborates soft commitments, illustrating the continuum between hard law and soft law described above. The underlying *rationale* of the CBD is that it needs national-level cross-sectoral policy learning, coordination and cooperation to achieve its various goals, which are concerned with a wide diversity of ecosystems, sectors and interests in various national contexts. However, scholarly findings have shown that these kinds of target-setting, inclusive and cross-sectoral approaches are highly demanding (e.g. Jänicke and Jörgens 2006). Hence, they frequently remain ineffective: often, the use of biological resources is the productive foundation of powerful sectors, which tend to avoid the effective integration of environmental concerns into their sectoral policies (e.g. by rejecting the formulation of operational targets, time frames for implementation and monitoring procedures, or by promoting 'business as usual' targets; ibid.). Moreover, they presuppose, among other things, sufficient capacity and incentives for the engagement of actors, as well as the existence of an appropriate infrastructure of rights and information (ibid.), transparent, accurate and problem-focused information and, not least, high-ranking institutional support. In many contexts, none of these prerequisites can be taken for granted.

3.4.8 Convention on International Trade in Endangered Species of Wild Fauna and Flora

CITES was signed in Washington, D.C., United States in 1973 and entered into force in 1975. The *goal* of this international legal instrument is to regulate the international trade in plant and animal species which are threatened by overexploitation. CITES does not forbid trade in species but seeks to control it through the institutionalisation of a system of permits and certificates (*policy tool*) by member states. This requires a system of authorisation to enhance the control of international trade in species listed in three appendixes, which distinguish between three levels of threat and corresponding rules, as follows:

- Appendix I (Article 2 (1)), which includes the most endangered species, or those most affected by commercial activities. The trade in and exploitation of these species is prohibited;
- Appendix II (article 2 (2)), which comprises two types of species: those that are not threatened but are likely to become so due to uncontrolled commercial exploitation, and those whose trade is free in principle but which are subject to the system of control; and
- Appendix III, which includes species nominated by range states to help prevent their illegal or unsustainable exploitation. These species are protected by the regulations of member states.

The CITES appendices contain a large number of forest species (Sand 1997), and certainly contribute to the protection and sustainability of such species. Very few tree species are listed in the CITES appendices, partly because of controversies with economic operators about the role of CITES in regulating the trade of economically valuable species. This situation stems from controversies with economic operators of the sector about economically valuable species. Nevertheless, CITES certainly contributes to the overall process of forest resources sustainability through the trade arrangements it has instituted (Assembe-Mvondo 2008).

Administration of the licensing system

The underlying *rationale* of the CITES licensing system is based on thorough monitoring of endangered species. In accordance with Article 9 of the Convention, each member state (*internal target group*) is required to nominate a national management authority, which administers the licensing system, and one or more scientific authority to provide guidance to the national management authority on the effects of trade

on conservation status of the species in question. The national management authority is responsible for implementing the Convention in a country and is the sole body which can grant import and export permits and re-export certificates on behalf of that country. The implementation of CITES involves many external target groups, including NGOs (especially TRAFFIC and the International Union for Conservation of Nature) and private companies.

Proposals for the inclusion of timber species in Appendix II were made during the eighth and ninth sessions of the CITES COP (Wijnstekers 2003) but, given the importance of the trade of these species, they were hotly debated (Ruis 2001; Sand 1997). The Preamble of Resolution 10.13 (COP 15) recognizes that amendment proposals for the inclusion of timber species should contain the maximum amount of biological and trade information on the taxon concerned and that such information could be obtained from international organisations that have expertise related to timber trade and/or forest management. The Resolution also recognised the need to clearly define the parties and products mentioned in the interpretation of Appendices I, II and III. Moreover, member states were requested to report adequately on their annual trade in timber and to use agreed units of measurement. The obligation to submit reports enables the CITES Secretariat General to ensure monitoring and control (Sand 2008).

CITES member states have underscored the need to promote the sustainable management of various timber species from different tropical regions traded on the international market, including by creating a Timber Working Group at COP 9. It was noted that some timber species are threatened with extinction owing to overexploitation and international trade. Resolution 12.3 (COP 15) requires permits and certificates to be issued for species included in Appendices II and III with the annotation "designates logs, sawn wood and veneer sheets". For the specific cases of trade in *Percopsis Elata*, *Gonyxtylus* spp., *Swietenia macrophylla*, only sawnwood is subject to harvesting – export quotas. Resolution 14.4 (COP 14) is significant for timber species because it recommends and institutionalises cooperation between the Executive Secretariat of CITES and ITTO concerning international trade in tropical timber species.

3.4.9 The climate change regime

The role of forests

The *goal* of the UNFCCC is the mitigation of greenhouse-gas (GHG) emissions and the adaptation of ecosystems to climate change (Article 2). Forests play a key role in climate change because they are both carbon sinks and sources of carbon dioxide emissions, the former by sequestering carbon through tree growth and the latter through deforestation and forest degradation (IPCC 2007). Correspondingly, Article 3 of the Kyoto Protocol specifies that "direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation" (Decision 1/CP.3, 1997) may be used to partly meet the emission reduction commitments of Annex I (developed) countries. The contentious issue of including forestry activities in developing countries as a *policy tool* to offset GHG emissions under the Clean Development Mechanism (CDM) was resolved during COP 7 (held in Marrakech in 2001). The CDM includes afforestation/reforestation (A/R) projects but – for both technical and political reasons – not avoided deforestation or degradation. While, in general, the CDM is considered a success in terms of the number of projects and volume of Certified Emission Reductions (CER), it has been unsuccessful in raising significant funds for A/R projects. As of May 2010, only 16 of the 2191 registered CDM projects are A/R projects (CDM 2010).

High expectations for REDD+

The Bali Action Plan, which was agreed at COP 13 of the UNFCCC, proposes an additional policy tool – the reduction of emissions from deforestation and forest degradation (REDD). REDD, or REDD+ as now labeled, is a mechanism to create an incentive for forested developing countries to protect, better manage and wisely use their forest resources, thus contributing to the global efforts to limit climate change. The underlying rationale of REDD+ is to make forests more valuable than alternative land-uses – hence deterring deforestation and forest degradation – by creating a financial value for the carbon stored within them (UN-REDD Programme 2010: 4). In return for avoiding emissions by reducing deforestation and forest degradation, countries participating in REDD+ would receive payments for verified/certified emission reductions and removals, either through a market-based or fund-based mechanism, or a combination of these.

REDD+ is now 'mainstreamed' into climate change negotiations and debates. Yet progress on negotiations on REDD+ have been limited since 2007, except in a few areas such as local/indigenous rights and monitoring, reporting and verification (MRV) (cf. Decision 4/CP.15). Behind the broad support for REDD+ are a number of unresolved controversies related to funding, integration into carbon markets, MRV requirements, reference levels (and ensuring additionality), scale of implementation, performance criteria (e.g. emission-based vs stock-based payments), the type of activities to be credited (e.g.

reduced impact logging), and the rights of local/indigenous communities (Angelsen 2008).

Developing the international REDD+ regime depends on the readiness of forested developing countries (*internal target groups*) and will take time. Most existing REDD+ activities are still in an initial phase: more than 40 countries are in the process of developing national REDD+ strategies, hundreds of demonstration activities are in the pipeline or on the ground, and there are several large bilateral and multilateral initiatives. Some countries have taken steps to initiate and implement large policy reforms, while agreements that Norway has entered into with Brazil and Guyana are performance-based with payments directly linked to emission reductions (although not to carbon markets).

Future prospects

An initial vision of REDD+ as part of a market mechanism in a post-2012 climate agreement is unlikely to be realised in the short to medium term. In addition to the slow progress towards an overall climate agreement, in particular on post-Kyoto emission reduction targets, many long-standing issues are not yet satisfactorily resolved. Even if a new climate agreement is not concluded (or if REDD is not included in such an agreement), however, REDD+ credits can potentially become an offset option in a future United States carbon market and integrated into the EU's existing emissions trading scheme. A third option for inclusion in a compliance carbon market – a market where countries or companies have been assigned a cap on emissions – would be a broadening of the CDM but this has not yet been the subject of negotiations.

After the failure of COP 15 to reach consensus on a post-2012 climate agreement in Copenhagen in December 2009, the REDD+ Partnership was formed by 58 Partner countries on 27 May 2010 in Oslo, Norway to complement and feed into the UNFCCC process. As a voluntary, non-legally binding framework for REDD+ efforts, the partnership aims to mobilize further public funding, establish a database for information exchange, and attempt to coordinate activities. REDD+ is likely to develop as an umbrella term for a large number of heterogeneous projects, policy initiatives and funding mechanisms. Several multilateral mechanisms have been established – notably the UN Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, the Forest Carbon Partnership Facility, the World Bank's Forest Investment Programme and the REDD+ Partnership – and will provide some overall coordination. However, loosely coordinated national, bilateral and private efforts are likely to play a dominant role along these global initiatives and – perhaps – the gradual inclusion of REDD+ in national/regional compliance carbon markets (Meridian Institute 2009).

Despite the current bleak short-term prospects for an all-inclusive post-2012 climate agreement, REDD+ can achieve its main goal of reducing emissions if it succeeds at two levels. At the *international* level, sufficient funding must be mobilised and sound mechanisms established to channel funding to REDD+ countries. At the *national* level, funds received for REDD+ must be used to undertake policy reforms and create incentive mechanisms that deliver real emission reductions. Effective REDD+ policies must also be identified and designed. Institutions are needed to manage the flow of information on changes in forest carbon stocks (or proxies of that), and the flow of funding from domestic and international sources. Many actors will be seeking REDD+ rents, and the successful implementation of REDD+ will hinge on good governance and domestically driven reforms.

3.4.10 Discussion

As well as differences, the policy design approach revealed many commonalities between the core components of the international forest regime complex, although they target different aspects of forests. Commonalities can be found in the goals, policy tools and rationales, and in the preferences and behaviours of the internal and external target groups.

The *goals* of the core components have in common that they aim to resolve forest issues in which at least two main sets of actors are involved: powerful economic actors who use timber and other biological resources, and actors who share environmental and social concerns. Sabatier and Jenkins-Smith (1999) call the normative commitments and causal perceptions across a subgroup of actors "policy core beliefs". These are the fundamental glue of the individual subgroups ("advocacy coalitions"; ibid.) and are difficult to modify. The high level of conflict between advocacy coalitions results in agreement only on generalised and vague goals in the formulation of policies (cf. Chapter 5). In the implementation phase, powerful sectors use the ambiguity in the phrasing of goals to advance their own interests. Consensus is most likely to be achieved only on some empirically accessible elements ("secondary aspects"; ibid.) by policy-oriented learning (e.g. Elliott 2000).

In almost all core components, soft *policy tools* prevail, even if their use is authorised by a legally binding instrument. Among the examples identified in this chapter are the CBD and the ITTA. In contrast, the WTAs are endowed with the authority to enforce strict rules for the liberalisation of trade, including

changes to national law on pain of sanctions. In environmental policy, soft policy tools use a mix of economic and information means. In the cases of forest certification and REDD+, the focus is on positive economic incentives to induce behavioural change in forest users. The NLBI and the CBD target states by means of national programmes, national strategies and programmes of work in order to achieve their multifaceted goals. The latter require a climate of mutual trust to be effective and will fail if there is a lack of problem awareness, capacity, political commitment and coordination. FLEGT relies on the voluntary consent of timber-producing countries to uphold the rule of law in combating illegal forest practices. CITES uses a licensing system for protecting endangered tree species which, however, is determined not only by scientific knowledge but also by powerful interests in the international trade of tropical timber.

The *rationales* underlying each individual core component correspond to the goals of that core component and the policy tools to be applied. The justification for the trade rules of the WTAs is the belief that predictable agreements on trade are in the common interest of all. FLEGT tries to combat illegal logging by ensuring the rule of law through VPAs. In contrast to the hard multilateral provisions of the WTAs, however, FLEGT VPAs are bilateral and voluntary. The use of financial incentives to promote SFM (such as the disbursement of aid for ITTO projects, the promise held out by forest certification schemes of growing market share, and the opportunity to receive financial returns for conserving rather than converting forests under REDD+) is often justified by empirical evidence that such incentives are more effective than coercive policies such as fines and sanctions. New modes of governance such as the national programmes and strategies favoured by the CBD and the NLBI can enable the active participation and involvement of manifold political actors with different interests, values and power. In the process they can also promote cross-sectoral policy learning, vertical and horizontal coordination, and cooperation. The CITES licensing system and much of the work of the UNFCCC operates on the basis of scientific monitoring.

With the exception of forest certification, which targets international supply chains, all core components target national policy processes to achieve intended goals (cf. chapters 6 and 7). The outcomes of these efforts depend on whether an international policy instrument on forests increases governmental concern, enhances the contractual environment and increases national capacity (Keohane and Levy 1996). To determine the extent to which this occurs, empirically based research would be required.

3.5 Compatibility assessment

The core components of the international forest governance arrangements are not independent of each other but, rather, intersect. 'Institutional linkages' are politically significant connections between multiple, nominally separated institutions, including regimes (Young 1994). Four types of institutional linkage can be distinguished (ibid): (i) *embedded*, when regimes share a broader context of existing principles (e.g. the NLBI and CBD share the principle of state sovereignty and both promote protected areas as a conservation tool); (ii) *nested*, when one agreement is established under a wider framework agreement (e.g. the Kyoto Protocol under the UNFCCC); (iii) *clustered*, when different functional arrangements are combined in comprehensive package deals (e.g. Joint Implementation and the CDM in the climate change regime); and (iv) *overlapping*, when the functional scope of one regime protrudes into the functional scope of others. Among these four types of institutional linkage, overlapping regimes are decisive for the purpose of assessing the compatibility of the core components.

Selin and VanDeveer (2003) differentiate between functional and political overlaps. *Functional overlaps* exist in biophysical and socio-economic terms and occur when a biophysical or socio-economic process in one issue area has consequences for another. For example, new plantations of fast-growing exotic species for carbon sequestration will help to meet the objectives of the climate change regime but may have negative ramifications for the objectives of the CBD. The clearfelling of forests for agricultural production will help to promote food security but will reduce both carbon-sink capacity and the area of habitat available for biodiversity conservation. In *political overlaps*, the content and design of one regime or the interests and capabilities of regime actors affect the formation or operation of another. This can be observed between various global regimes and between global and regional regimes. The CPF can facilitate the management of some of these overlaps but because it lacks executive power it cannot manage them all.

Finally, overlaps can be *synergistic*, when two institutions are mutually reinforcing; or *conflictive*, when the objectives of two institutions contradict each other, hampering international cooperation and problem-solving. An example of synergistic overlap is that between CITES and the CBD. While these two regimes have different emphases – CITES has a species-specific focus while the CBD applies at the level of ecosystems – each promotes nature conservation, and the effective implementation of one will likely promote the objectives of the other. Synergistic overlaps also occur between the aims of the UNFCCC and the Kyoto Protocol on the one hand

Table 3.1 Types of overlap between the core components

	Compatible norms	Diverging norms
Compatible rules	I (e.g. CBD/NLBI)	II (e.g. CBD/ITTA)
Diverging rules	III (e.g. CBD/UNFCCC-KP)	IV (e.g. TBT/forest certification)

Source: Rosendal (2001: 98)

and those of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer on the other. The reduction of chlorofluorocarbons (which are major greenhouse gases) under the Montreal Protocol contributes to the objectives of the UNFCCC. An example of overlaps that may be conflicting is the relationship between the WTAs, which aim to further liberalise international trade, and forest certification schemes, which aim to promote the trade of timber only from sustainably managed forests.

Rosendal (2001: 97) proposes a matrix that distinguishes between "the norms generated by a regime, and the explicit rules to which states may commit themselves. Norms refer to the overall policy objectives and principles of a regime that tend to have legitimacy among participating actors. Explicit rules prescribe specified regulations for state behaviour in the implementation phase." Norms and rules can be compatible or diverging; thus, four types of overlap can be identified (Table 3.1).

Type I shows a largely synergistic situation; among the core components the relationship between the CBD and CITES and between the CBD and the NLBI are examples. With regard to the latter, there are synergies between the four NLBI objectives and the three CBD principles. Rosendal (2001: 98) points out that even though a synergistic situation provides a high degree of scope for exploiting synergies between overlaps, this potential is not necessarily tapped: "Overlap between two or more such institutions may result in significant double work in terms of, for instance, national reporting. Type I will not automatically give rise to synergies, unless the parties establish some form of cooperation or coordination mechanisms". In the case of the linkages between the CBD and the NLBI, coordination may also be impeded by ideological convictions and competition between the bureaucracies.

Type II overlaps are characterised by a relatively synergistic situation with diverging norms and compatible rules. An example is the relationship between the CBD or the NLBI on the one hand and the ITTA on the other, the principal goal of the latter being to increase the international trade in tropical timber and promote the sustainable management of tropical timber-producing forests.

Type III overlaps share compatible norms but diverging rules, as is the case in the relationship between the CBD and the UNFCCC and its Kyoto Protocol. Both aim to reduce deforestation and forest degradation, but for different reasons. From a climate change perspective, plantations with uniform, fast-growing tree species would be the most efficient way to ensure carbon sequestration. However, this may not be compatible with the objective of enhancing biodiversity (Rosendal 2001). In Type III overlaps, some compromises may be necessary if the goals of all instruments are to be realised and collective welfare maximised.

Type IV overlaps occur between regimes (e.g. the TBT and forest certification) in which both the norms and rules relating to an issue area diverge. Type IV overlaps may be assumed to represent the situation with the highest potential for conflict. Learning more about such situations, however, requires additional investigation that would go beyond the scope of this chapter. Rosendal (2001) proposes further research on the potential interests behind diverging norms; they can be either policy core beliefs or secondary aspects in the sense of Sabatier and Jenkins-Smith (1999).

Regarding diverging rules, Rosendal (2001: 101) distinguishes between regulatory (i.e. they refer to explicit obligations) and programmatic (i.e. they refer to enhancing knowledge in an issue area) rules. The situation with the highest scope for conflict is an overlap between regimes with diverging norms relating to the core beliefs of an issue area and with diverging regulatory rules. "The other three types of situations will be assumed to have a relatively higher potential for synergies, because learning and diffusion of policy ideas may give rise to compatible solutions" (ibid.).

3.6 Conclusions

This chapter identifies eight core components that are central to international forest governance arrangements. Embedded within these core components – which encompass a hybrid mix of hard, soft and private international law on forests and forest-related

issues – are many different goals – some of which are complementary and some of which are conflicting – that reflect the various values of the political actors with a stake in forest conservation and use. Given the complexity and multiple causes of current global forest problems, a *portfolio* of hard and soft law should be applied. Hard and soft law should be seen as complements rather than competitors because they serve different purposes – as long as soft law does not crowd out hard law when the latter is necessary.

The consistency and compatibility assessments of the core components reveal a series of *challenges* to international forest governance that can, however, be turned into *opportunities*. Although more research is needed to comprehensively map the areas of overlap, the compatibility assessment shows that many overlaps between the core components are more or less synergistic. This is certain the case for the relationship between the NLBI and the CBD and therefore the preconditions exist for close cooperation between the UN Forum on Forests (responsible for the implementation of the NLBI) and the CBD Secretariat. There are many other synergistic relationships between the core components, or at least parts of them (e.g. the adaptation of forests to climate change is a goal shared by the NLBI and the climate change regime) that merit coordinating around common strategies and work programmes. In addition to synergistic relationships there are also more or less diverging overlaps, such as the legally unclear situation between the TBT and forest certification and the impacts of CDM-promoted monoculture afforestation on biological diversity. *Engaging the various actors in dialogue, mediating among their goals and coordinating common activities* could be an additional responsibility of the CPF, although final decision-making authority will continue to reside with the governing bodies of the various international instruments.

The core components of international forest governance differ from those found in many other regimes (e.g. the trade regime) in that there is a wide variety of political actors with different interests, values and expectations who introduce different discourses to forest policy to legitimise their political positions (cf. chapter 4). The core components are more diffuse than the trade regime and are administered by many bureaus and secretariats rather than by one organisation such as the WTO. It can be argued that this situation is not accidental, with a majority of the world's states assigning more political will and resources to the objectives of the WTO relative to those of international environmental instruments. With no coordinated and coherent system of governance for forests equivalent to that of the WTO the bureaus and secretariats of forest-related instruments seek to achieve their various goals by means of a wide range of regulatory, economic and information policy tools. Nevertheless, the different actors share an overarching idea – SFM (cf. chapter 5), albeit not always consistently. The broad and all-encompassing nature of SFM provides an opportunity to embrace all actors with a stake on forests, not only those in the forest sector but also in other sectors at the national (e.g. those involved in NFPs), regional (e.g. those involved in the Ministerial Conference on the Protection of Forests in Europe) and international (e.g. members of the CPF) levels with the aim of creating a climate of mutual understanding. The active engagement of all actors is a precondition for integrating SFM in other sectors by means of *forests+* policies. Forests+ acknowledges the inter-sectoral character of forest policymaking and the importance of international regimes that have a decisive impact on forests but for which forests are not the main focus of attention, such as those on biodiversity and climate change. Nonetheless, forests+ is intended to retain, as the fundamental organising principle for the various goals of global forest governance, the improvement of forest conditions and forest livelihoods.

If deforestation and forest degradation are to be slowed and, ultimately, halted, the main challenge that needs to be addressed is the dominance of powerful economic actors who impede the integration of environmental and social concerns in almost all the core components. These actors are partly inside but mainly outside the forest sector within the international trade, agriculture, energy production, mining and infrastructure sectors. They make use of forests for non-forest uses and are largely responsible for deforestation and forest degradation in developing countries. The policy tools applied in the past to reduce deforestation and forest degradation at the national level are very likely to fail if the opportunity costs of foregone alternative socio-economic benefits are not adequately compensated. Therefore, great hope is placed in *REDD+*. While REDD+ is, in many respects, a new approach, to be effective its implementation on the ground must draw on the decades of experience that have been gained in SFM and forest conservation. Successful REDD+ implementation also requires forests+ policies that go beyond the forest sector to influence the main drivers of deforestation and forest degradation.

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4 Discourses, actors and instruments in international forest governance

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Abstract: Politics are not only about interests and institutions but discourses as well. Discourses are (dominant) ideas, concepts and categorisations in a society that give meaning to reality and that shape the identities, interests and preferences of individuals and groups. The assumption of this chapter is that forest discourses are constitutive to global forest politics. Three forest-related types of discourses are distinguished: meta discourses that relate to global economics, politics and culture; regulatory discourses that deal with the regulation and instrumentation of policy issues; and forest discourses that shape forest issues and policies in specific ways. On the basis of a scientific literature review, the main discourses within these three categories (meta, regulatory and forest discourses) as well as three regional forest discourses (Africa, Asia and Latin-America) are analysed. This analysis leads to a number of policy messages: (1) policy makers should try to understand and embrace discursive complexity (instead of artificially reducing it); (2) awareness of this discursive complexity improves global forest negotiations; (3) orchestrated collective action might lead to discursive change; and (4) there is a need for new, open, discursive arenas to improve global forest policymaking.

Keywords: Global forest policy, meta discourse, regulatory discourse, forest discourse, discursive arenas.

4.1 Introduction

It is generally accepted that the social and political sciences have undergone an "argumentative turn" (Fischer and Forrester 1993), meaning that, increasingly, scientists are taking the roles of ideas and discourse in political processes just as seriously as, for example, the roles of interests and institutions (Schmidt 2005). Words matter, as both mediums for and means of politics (Hajer 1995; Van den Brink and Metze 2006). Some scientists also claim that discourses *constitute* politics, and hence, conceptually, have precedence over interests, institutions and outcomes (Foucault 1994). Whatever one's approach (see Box 4.1 for an overview of the main discourse theoretical approaches), the argumentative turn justifies the dedication of a chapter on forest discourses in this report.

This chapter shows that global discourses on forests have indeed shaped international policymaking over time and moreover that discursive change has gone hand-in-hand with policy change (Pülzl 2010). Moreover, it makes clear not only that discourses shape the thoughts, actions and identities of people (although this often remains unacknowledged), but also that political actors (try to) shape policy discourses strategically. In addition, policy discourses mediate choices of instrument (e.g. the neo-liberal discourse favours voluntary market instruments over state regulation).

In daily usage, discourse is often equated to 'mere discussion'. The meaning of the concept in political science, however, is very different. Hajer (1995: 44)

for example, defines discourse as:

"*An ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities.*"

This is just *one* of many definitions. In the broad review of literature on forest discourses presented in this chapter, we discuss various discursive approaches and definitions. Yet Hajer's definition offers a broadly shared 'anchor' for discourse analysis. A forest discourse can be considered as a set of ideas (e.g. 'forests as carbon stocks'), concepts (e.g. 'sustainable forest management' – SFM) and categorisations (e.g. forests versus non-forests) that are created and changed in forest-related social practices – such as global forest policy or forest sciences – and which give meaning to forests as both physical and social phenomena.

Crucial for discourse theory is not whether such ideas, concepts and categorisations are true or false but that they *exist* – shaped by certain social practices to help make sense of the physical and social worlds. It is also crucial that discourses are not considered to be 'objective givens' but, rather, 'historical constructs' of language-in-use, societal norms, various types of knowledge (e.g. scientific, professional and lay) and power mechanisms in a society over long time frames (Fischer 2003; Fischer and Forrester 1993). Hence, discourses are neither 'objective truths' nor 'false ideologies' but exist at the interface of politics, science, values and knowledge.

Discourses, like institutions, generally exhibit a so-called '*long durée*' (Giddens 1984): that is, they can be very stable and they seldom change overnight. This does not, however, exclude discursive change, e.g. through agency. Discursive change agents are those actors, groups or coalitions that are able to reframe a certain discourse (Benford and Snow 2000; Schmidt 2008). The Brundtland Commission, for example, reshaped the sustainability discourse in the 1980s. Hence influential actors may change discourses, when, for example, their interventions resonate in the media, in science and in politics. So the relationships between discourses and actors is dialectical. Discourses shape the perspectives of actors, while the latter, in turn, can reshape the former. We assume a similar dialectical relationship between discourses and regulatory instruments. In a given period, the choice of instrument (e.g. protocol, fund, voluntary market) is not made in a discursive vacuum but is informed by the ideas, concepts and categorisations of the regulatory instruments that are dominant at the time.

Based on existing scientific literature this chapter presents a longitudinal analysis of global forest(-related) discourses and their dynamics since the 1960s. We distinguish three types of discourses: (i) meta discourses that relate to global economics, politics and culture in general and that have affected forest-specific discourses (Section 4.2); (ii) regulatory discourses that deal with the regulation and instrumentation of global issues, including forests (Section 4.3); and (iii) forest discourses that have shaped international forest governance arrangements (Section 4.4). For each type of discourse, the role of actors in discursive dynamics is scrutinised (to the extent that literature is available). In Section 4.3, the dialectics between regulatory discourses and instrument choices in international forest governance are also analyced. Finally, we draw some conclusions on global forest discourse analysis in general and on global forest policymaking in particular (4.5). Media analysis however indicates that the global forest discourse is highly biased towards the Western world (see Kleinschmit 2010) and we assume the same for the scientific literature. Therefore, three text boxes provide African, Asian and Latin-American perspectives (see boxes 4.2, 4.3 and 4.4).

In undertaking this study we generally followed the 'IPCC model'; that is, we reviewed and integrated the *existing* scientific literature on forest(-related) discourses. *Hence, readers should keep in mind that this chapter does not present a discourse analysis but, rather, a review of the literature on global forest(-related) discourses.* The basic method used for data collection and analysis, was a literature search based on Google Scholar, Scopus and ISI Web of Sciences using the key terms 'global', 'forest', 'discourse', 'policy', 'regime', 'actor' and 'instrument' (and their combinations and synonyms). *This methodology implies that the overview of forest(-related) discourses is probably incomplete*. Only those discourses (as well as actors and instruments related to those discourses) referred to in the existing scientific literature on global forest policy are listed and analysed below. Nonetheless, because only a relatively small part of the literature has a fully global perspective, scholarly literature using 'lower-level' conceptions of forest discourse is included as well.

4.2 Meta discourses

Based on our literature search, we reconstructed the emergence, fall and existence-in-parallel of a number of meta discourses that relate to global forest policy. In Figure 4.1 the environmental meta discourses are depicted in yellow. Overlapping those are the economic and governance meta discourses (in blue) and the regulatory discourses (in red). The meta discourses are discussed below; the regulatory discourses are addressed in Section 4.3.

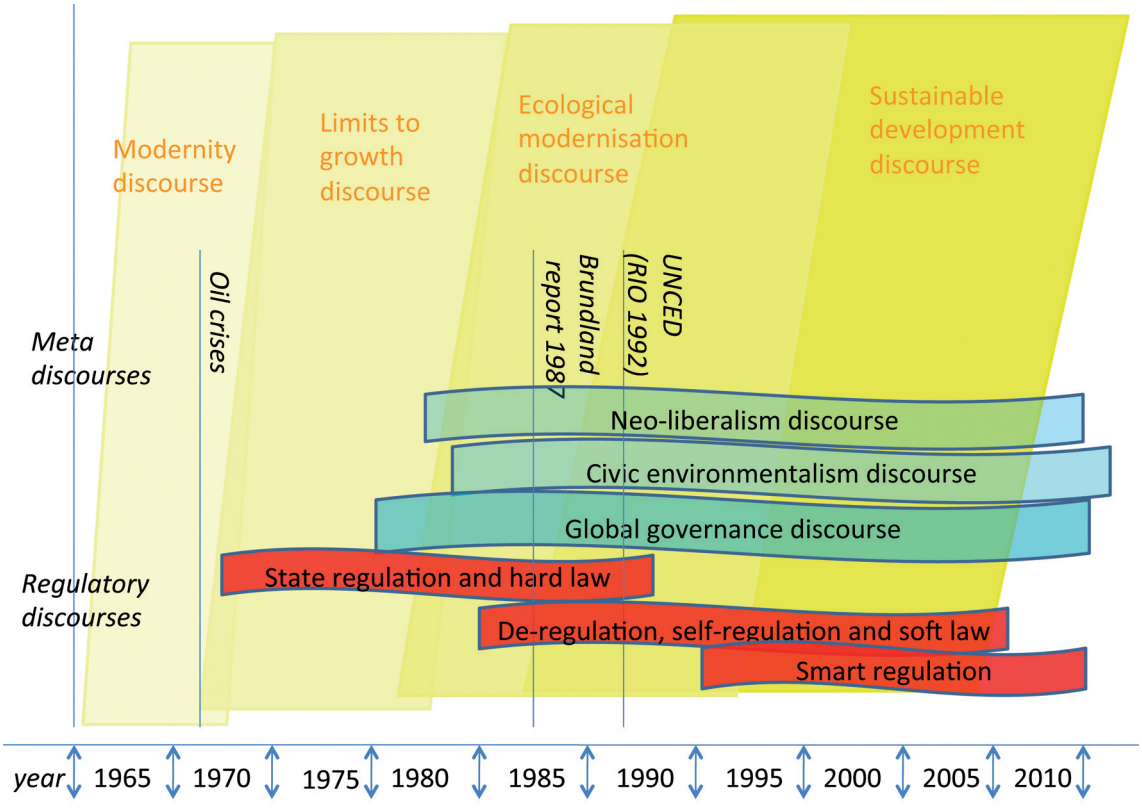

Figure 4.1 Meta and regulatory discourses.

Box 4.1 Discourse-theoretical approaches

There is no one discourse theory. Several approaches build on various ontologies, epistemologies, theories and methodologies, with a basic distinction between 'thin' and 'thick' discourse-theoretical approaches. Thin approaches consider discourse as one factor among others, such as agency, resources and rules, to explain politics. Hence, a distinction is made between the discursive and the non-discursive. Examples of thin approaches are frame analysis, theories of deliberative democracy and discursive-institutionalism; the latter, for example, considers discourses as sets of innovative ideas that can cause institutional change in a society. Thick approaches, on the other hand, do not distinguish between the discursive and the non-discursive. They consider that all reality is discursive and therefore socially constructed because it is impossible to escape a social system of meaning in order to directly observe reality. Hence, both the physical and social worlds are to be considered 'discursive practices'. Critics of such views argue that, for example, a person will fall if he or she steps out of the window of a skyscraper, even if he or she believes otherwise. Adherents of thick approaches counter that the point is not that gravity does not exist but that observers do not have direct access to its 'material reality'. Examples of thick approaches are Foucault's post-structuralist philosophy, Fairclough's critical discourse analysis, and the work of scholars of the Essex School, such as Laclau, Mouffe and Howard. For Foucauldians, discourses are disciplinary ensembles of language, knowledge and power that produce the generally accepted objects and subjects of a society (the 'normal') and exclude the others (the 'abnormal').

Sources: Arts and Buizer 2009; Benford and Snow 2000; Fischer 2003; Foucault 1994; Pülzl 2010; Schmidt 2005, 2008; Van den Brinck and Metze 2006.

4.2.1 Modernisation

The modernisation discourse was mostly popular in the middle of the 20th century. According to Eisenstadt (1966), modernisation is both a type of change and a response to change (see also Halpern 1966). Thus, modernisation and its related development theories are based on the idea of economic growth, industrialisation, control over natural and social resources (including forests), and social change (Tipps 1973). According to this discourse, resources should be transferred from the agrarian sector to the industrial sector, which will lead to structural transformation (Rostow 1960 in Umans 1993: 28). Critics (e.g. Shils 1965) argue, however, that modernisation draws on Western values and views traditions as a barrier to virtue and progress. The modernisation discourse was mainly triggered by American elites.

4.2.2 Limits to growth

The 'discourse of limited growth' (Dryzek 1997) is a critical response to the modernisation trajectory, which produced an 'ecological crisis' (Berger et al. 2001). This crisis started to be acknowledged in the late 1960s and early 1970s. Before then, natural resources were seen as an indefinite resource (Porter and Brown 1991); they were strongly linked to the national or home environments and thus did not gain much global political attention (e.g. Dauvergne 2005: 11–12; Pülzl and Rametsteiner 2002). This discourse can be considered a radical discourse in the sense that it suggests absolute limits to growth. It holds that the carrying capacity of the Earth's ecosystem has been surpassed and that the planet's resources are (nearly) depleted. It provides specific solutions to global problems that focus mainly on technical fixes and political elites rather than on people and communities (Dryzek 1997: 34, 129). Critics (e.g. Sills 1975) however argued that the assumptions of this discourse are flawed.

A number of publications supported the elevation of environmental issues to the global (change) agenda, including "Silent Spring" (Carson 1962), "The Tragedy of the Commons" (Hardin 1968), "The Population Bomb" (Ehrlich 1968), "The Limits to Growth" (Meadows et al. 1972) and "Small is Beautiful" (Schumacher 1973). The emergence of the discourse was also linked to a number of global events, such as the United Nations Conference on the Human Environment (Stockholm, 1972), the creation of the United Nations Environment Programme (UNEP), the establishment of national environmental ministries, and the oil crisis (Pülzl 2010).

4.2.3 Ecological modernisation

This discourse, which has been influential in the past two decades, embraces the dominant socio-economic paradigm of technological progress within capitalist political economies and argues that economic growth and development can be achieved while protecting the environment. The ecological modernisation discourse has helped raise, within industrialised countries, the acceptance of environmental problems and the need for action (Bäckstrand and Lövbrand 2006). The identification of ecological modernisation originated with German social scientists (Huber 1982; Jänicke 1985 in Dryzek 1997: 141) and a meeting of the Organisation for Economic Co-operation and Development (OECD) in 1984.

From the perspective of ecological modernisation, environmental policymaking follows an approach in which nature is seen as both a resource and a pollutant recycler. It questions the limits-to-growth discourse by depicting environmental degradation as a solvable problem and – unlike sustainable development – does not necessarily argue for economic redirection (Dryzek 1997: 141–144). It is also strongly intertwined with the idea of a shift 'from government to governance' (see below), facilitating an enhanced role for the private sector and voluntary regulation. In sum, the ecological modernisation discourse calls for a 'decentralised liberal market order that aims to provide flexible and cost-optimal solutions to the environmental problem' (McGee and Taplin 2009; see also Berger et al. 2001).

Prominent actors in the promotion of ecological modernisation have included the World Bank, the OECD and corporate bodies (McAfee 1999). Support for this discourse is also growing among mainstream conservation organisations such as the International Union for Conservation of Nature (IUCN), the World Resources Institute (WRI) and the World Wide Fund For Nature (WWF) and among scientists and environmental policymakers. However, it has also created political space for counter-discourses of peasant and indigenous peoples' movements, with more radical non-governmental organisations (NGOs) challenging the 'techno-optimist' and 'eco-imperialist' claims of ecological modernisation.

4.2.4 Sustainable development

The sustainable development discourse became popular with the publication of "Our Common Future", although the idea emerged well before then (e.g. IUCN 1980). A second important event, which further facilitated the institutionalisation of this discourse, was the United Nations Conference on Environment and Development (UNCED), which was

held in Rio de Janeiro in 1992. The sustainable development discourse is characterised by the following (Adger et al. 2001; Baker et al. 1997; Holmgren 2008; Jordan 2008; Lélé 1991; Pülzl 2010): (i) it does not acknowledge fixed limits to growth; (ii) it requires inter-generational and intra-generational satisfaction of one's needs (hence, equity among generations); (iii) the managerial notion of regulation prevails, since the dominant belief of UNCED was that global environmental problems are solvable through coordinated public and private action; (iv) the management, conservation and use of resources are not viewed as contradictory; and (v) other concerns, such as public participation, global equity and technology transfer from developed to developing countries are taken into consideration.

This discourse substantially overlaps with the ecological modernization discourse. Some authors (e.g. Hajer 1995; Pülzl 2010) argue that the former is part of the latter, and others (e.g. Dryzek 1997) treat them as separate. We decided to distinguish among them, however taking their strong overlap into account. One reason to differentiate between the two is that sustainable development exhibits a broader worldview than ecological modernisation – it's both more *global* in nature (taking into account the concerns of developing countries) and more *inclusive* (in addition to economic and ecological issues, it deals with social issues as well) (Arts 1994).

The scientific literature widely recognises the important role of the "Our Common Future" and NGOs, in the development and strengthening of the sustainable development discourse (Arts 1998; Haufler 1993; Humphreys 2008).

4.2.5 Neo-liberalism

The neo-liberalist discourse can be characterised as a meta discourse, because it influences a range of other discourses. Humphreys (2009) describes neo-liberalism as a highly political-ideological discourse (although there is a link with economics as a science – e.g. monetarism), attributing the following three principles to the neo-liberal discourse: (i) the increasing role of markets; (ii) the enhanced role of the private sector; and (iii) voluntary, legally non-binding regulation. In other words (see Jessop 2002), neo-liberalism seeks for market expansion, the deregulation of markets and the privatisation of state-owned enterprises and services. Accordingly, the role of corporate non-state actors in governance activities is increasingly advocated and expanded (McCarthy 2006: 99 in Toke and Lauber 2007: 679). The neo-liberalist discourse has been highly influential in international negotiations on various topics, including forests.

Several authors discuss the role of actors who represent the neo-liberal discourse in international regimes. For example, the neo-liberal discourse has been furthered by multinational corporations, who have promoted international regulatory convergence, standard setting and policy harmonisation (Dahan et al. 2006). According to Kamat (2004), a neo-liberal consensus exists within the Bretton Woods institutions – the World Bank and the International Monetary Fund (IMF) – and the World Trade Organization (WTO). Kamat also states that these institutions try to regulate civil society. On the one hand, these institutions are *pluralising* the term 'NGO' by also including market, industry and business actors in it. On the other hand, they *depoliticise* NGOs through their donor policies, causing community-based NGOs to move away from education and empowerment programmes towards more technical managerial approaches to social issues (Kamat 2004). Humphreys (1996, 2008) states that even though NGOs have sometimes successfully influenced international negotiations (see 'global governance' below), they have not been able to influence the dominance of the neo-liberal discourse.

4.2.6 Civic environmentalism

The discourse of civic environmentalism became popular in the 1992 with UNCED. Associated with this discourse is language of 'stakeholders' and 'participation', which entered the international arena accompanied by terms such as democratic efficiency, bottom-up approaches and governance arrangements (Bäckstrand and Lövbrand 2006). Authors differentiate between various types of NGOs and civic environmentalism. Humphreys (2004), for example, distinguishes *outsider* tactics of "system transformation oriented NGOs" from *insider* tactics of more collaborative, "system reformation oriented NGOs". Bäckstrand and Lövbrand (2007) divide the discourse of civic environmentalism into *radical* and *reformist* civic environmentalism. The former advocates a fundamental transformation of consumption patterns and existing institutions to realize a more eco-centric and equitable world order. The reformist civic environmentalism discourse suggests that increased stakeholder participation can enhance the legitimacy and accountability of multilateral institutions (McGee and Taplin 2009). Brosius (1999) describes reformist civic environmentalism as a discourse that excludes moral or political imperatives in favour of techno-scientific forms of intervention.

Several authors highlight the consequences of the reformist civic environmentalism discourse for the roles of NGOs. Lemos and Agrawal (2006), for example, emphasise the fact that outsiders and

disempowered groups continue to have few opportunities for participation. Grassroots environmental movements are displaced by 'moderate' environmental NGOs (such as WWF and IUCN), and by large transnational institutions. Visseren-Hamakers (2009) warns that a more fundamental critique may become increasingly unaccepted in the longer term if the dominance of moderate NGOs continues. Falkner (2003) concludes that the involvement of NGOs in private governance alters their role and identity as non-state actors. They may become 'co-opted', which would undermine their ability to play a 'conscience-keeping' role (Yamin 2001).

4.2.7 Global governance

Traditionally, global regulation has been used as a synonym for intergovernmental arrangements, ruled by sovereign nation states (Arts 2006). Since the 1970s, however, the role of the state as the prime sovereign agent of international (environmental) governance has declined. Instead, globalisation has enhanced public participation and increased the diversity of actors shaping environmental governance (Lemos and Agrawal 2006). Also, the diversity of rules – public, private, binding and voluntary – governing the environment has grown (Cashore 2002). Various authors (e.g. Martello and Jasanoff 2004) explain the rise of environmental governance at the global level in different ways. Some (Meidinger 1997) link it to transnationalism and the growth in global civil society; others (e.g. Falkner 2003) view the development of the 'late' capitalist forces as the source. Part of the global governance discourse is the quest for *good* governance. There is a broad consensus about its essential elements (Rametsteiner 2009): rule of law, accountability and transparency, participation, and effectiveness and efficiency.

The emergence of the global governance discourse has been shaped by many actors. For example, various scholars emphasise the role of international organisations, like the United Nations and the European Union (Arts 2006; Hunphreys 2008; Lemos and Agrawal 2006), while NGOs have also played influential roles. While pressuring for the protection of (tropical) forests since the late 1970s (Sears et al. 2001), NGOs were able to include language on participation, women, traditional forest-related knowledge, benefit-sharing and land tenure security in international environmental agreements (Arts 1998). Moreover, NGOs and private-sector actors have taken leading roles in private voluntary rule-making, such as forest certification (Cock 2008; Elliott and Schlaepfer 2001a, 2001b; Humphreys 1996; Perez-Aleman and Sandilands 2008; Sears et al. 2001). Through certification, NGO involvement has been institutionalised, policy making has been partly delegated to the private sector, and participation has been broadened (Elliott and Schlaepfer 2001a, 2001b).

4.3 Regulatory discourses

Regulatory discourses deal with the regulation and instrumentation of policy issues. These are distinguished from meta discourses in the sense that they are more directly related to policymaking through the shaping of regulatory styles and policy instruments within sectors. Nevertheless, regulatory discourses transcend individual policy domains (like forests), too; thus, in our view, a separate section on regulatory discourses is justified. The global governance meta discourse is related to the regulatory discourse, but we consider the former to be an overarching discourse, challenging the Westphalian nation-state model at a global level. Regulatory discourses, on the other hand, focus more on the concrete 'meso level' of organising policy implementation processes (although they may be influenced by global governance ideas). Below, three regulatory discourses are distinguished, as deduced from the scientific literature. These three seem to form regulatory 'phases' or 'fashions', chronologically replacing and partly paralleling each other over time (see Figure 4.1).

4.3.1 State regulation and hard law

In the late 1960s and early 1970s, as people increasingly became aware of and protested against environmental degradation, the response of most Western states was to initiate a wide range of laws in line with a command-and-control model (Gunningham and Grabosky 1998; Kirton and Trebilcock 2004). Thereby, these states were the main actors responsible for the development of the discourse. Even though this form of steering has never fully succeeded in supplanting other forms of social control, such as education, information, and voluntary agreements, it was the predominant legal discourse in early environmental politics and for a long time shaped environmental policy formulation. This form of steering is linked to the limits-to-growth meta discourse, which holds that natural resources are scarce and in need of protection.

A landmark for the 'greening' of global policy was the United Nations Conference on the Human Environment in Stockholm in 1972, which was the starting point of global environmental regulation. It was followed by the ratification of key environmental agreements in the 1970s such as the Ramsar Conven-

tion, the World Heritage Convention and the Convention on International Trade in Endangered Species (McDermott et al. 2007; Pülzl 2010). Dimotrov (2005) argues that, in general, states have internalised the "norm of environmental multilateralism", which implies that the neglect of important environmental issues, such as deforestation, can no longer be justified nor international environmental cooperation avoided. However, the reliance on intergovernmental regulation and hard law became subject to increasingly strong criticism. By the late 1970s it was evident that much command-and-control regulation had not performed the way in which policymakers had intended. In various cases it was found to be both ineffective and powerless (e.g. Elliott and Thomas 1993).

4.3.2 De-regulation, self-regulation and soft law

During the 1980s, neo-liberal tendencies in both politics and science turned against the existing top-down regulation system and advocated extensive de-regulation. The self-regulation of the market and voluntary policy instruments were believed to be more effective and efficient than the old 'rigid' regulation system (Humphreys 2008; Osborne and Gaebler 1992). As pointed out by Gunningham and Grabosky (1998), however the traditional legal type of steering succeeded in mitigating environmental deterioration in several areas (including forests). But this simple fact was downplayed by the discursive hegemony of neo-liberalism.

An important example of self-regulation in global environmental policy is corporate social responsibility (CSR). This discourse started in the United States of America and Europe in the 1970s (Charkiewicz 2005) and was developed by religious organisations, research institutes and NGOs. The 2002 World Summit on Sustainable Development in Johannesburg saw the consolidation of the global discourse on CSR in what was known as the "Global Compact" and in other partnerships between the United Nations and corporations. According to critics, CSR implies a further 'hollowing out' of the state. Charkiewicz (2005) claims that while it may position NGOs inside the corporate orbit, it simply offers them a "voice without influence".

The discourse on de-regulation has also affected global forest regulation. At UNCED a number of participants pushed for the creation of a legally binding agreement on forests (Humphreys 1996; Poore 2003; Pülzl 2010; Schneider 2006). No such agreement has so far been reached, however. Instead, two 'soft law' instruments on forests were produced: Chapter 11 of Agenda 21 and the Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests. In addition, the voluntary Intergovernmental Panel on Forests (IPF) was launched soon after UNCED to further the global forest dialogue (which proceeded in the Intergovernmental Forum on Forests, IFF, and the United Nations Forum on Forests, UNFF, later on). Over time, new voluntary rules were designed (including criteria and indicators for SFM and the Non-legally Binding Instrument on All Types of Forests). In line with these bottom-up approaches, forest certification was advocated by both NGOs and (part of) the corporate sector as a new 'non-state market-driven governance system' (Cashore 2002).

4.3.3 Smart regulation and instrument mixes

De-regulation has often not lived up to its promises. Gunningham and Grabosky (1998) therefore advocate a regulatory "third way" that positions itself between traditional top-down regulation and fashionable de-regulation. They call it "smart regulation", a term that has received considerable attention in the (scientific) policy literature (Howlett and Rayner 2004; Van Gossum et al. 2010). It refers to finding 'smart' solutions to complex policy problems, based on cleverly designed instrument mixes, both governmental and binding and non-governmental and voluntary, in order to create win-win solutions in specific policy areas. Smart regulation has particularly been applied to environmental policy, including forest policy (Van Gossum et al. 2009).

4.4 Forest discourses

All discourses *directly* connected to global forest policy are described here. Meta and regulatory discourses, as distinguished above, affect the initialisation and direction of forest discourses; similarly, forest discourses can play a role in shaping meta and regulatory discourses. For analytical reasons, forest discourses are here described consecutively, although in reality they are difficult to separate because they interact, overlap and compete with each other. Figure 4.2 depicts the intensity of the respective forest discourses in the period 1960–2005 (based on the literature review).

4.4.1 Industrial forestry

The industrial forestry discourse links forests to economic development, prioritising the production function of forests and seeking economic profit on the basis of the sustainable yield of the resource (Umans 1993). This discourse was supported by 'scientific forestry', which aimed to maximise the long-term economic return (Farrell et al. 2000). In line with the meta discourse on modernisation, foresters believed that the selection of fast-growing tree species as well as the harvesting of tropical wood in developing countries would trigger economic growth through the creation of wood-processing industries, thereby sustaining local livelihoods (Umans 1993: 28).

This discourse was dominant in the 1960s, especially in developing countries, where Western foresters advocated industrial forestry and Western companies attained large timber concessions. According to Umans (1993: 28), however, this discourse met with considerable criticism. Modernisation was perceived a threat to (small-scale) agriculture and considered contradictory to the 'limits to growth' discourse that dominated the 1970s.

4.4.2 Woodfuel crisis

The woodfuel discourse became prominent in local (African) areas in times of war and drought. Its global popularity started with the oil crisis in the early 1970s. Eckholm (1975) termed it 'the other energy crisis' of the 1970s. The argumentation at that time was that an increasing number of people in developing countries were becoming dependent on woodfuel for their energy needs; this would lead to a devastating depletion of forest resources, with huge negative consequences for local livelihoods (Arnold et al. 2006). In this way, the woodfuel discourse linked up with the discourse on deforestation (Cline-Cole 2007; see below). In the mid-1980s, however, it was argued that the nature and impact of the woodfuel crisis was overestimated (Arnold et al. 2006) and interest in this particular discourse declined, although it was later reframed into a discourse on wood energy in general and, most recently, into a discourse on innovative wood-based bio-fuels (Cline-Cole 2007).

4.4.3 Deforestation

Deforestation emerged as a global forest discourse in the 1980s and focused mainly on the destruction of tropical rainforests (Humphreys 1996). A collective metaphor used at the time for rainforests was that they were "the lungs of the world" (Adger et al. 2001). The content of the deforestation discourse changed over time, however. In the 1980s the discourse centred around the view that farmers were the main causers of tropical deforestation (Zhouri 2004). By 1990s however, famers had come to be perceived as victims, while logging companies and related transnational interests were identified as the main causes of tropical deforestation (Cline-Cole 2007).

Also in the 1990s, the deforestation discourse broadened in two ways. First, northern temperate and boreal forests were perceived to also be subject to deforestation (Pülzl 2010). Second, the discourse shifted towards the meta discourse on sustainable development and was linked to related issues such as biodiversity loss, poverty reduction and climate change. During the first decade of the 21st century, the discourse shifted again towards avoiding deforestation by compensating actors if they reduce deforestation (Singer 2008) mainly as a means to reduce carbon dioxide emissions.

In the emergence of the deforestation discourse, Western NGOs played influential roles. Stott (1999) even argues that NGOs (re-)invented the term 'tropical rainforest' using it to refer to virgin, undisturbed, old-growth forests in the tropics. Stott (1999) argues that the concept is a myth, since such forests are neither thousands of years old nor free from historical-cultural influences, and that the term represents a Western agenda.

4.4.4 Conservation in protected forest areas (forest parks)

The discourse on forest conservation was high on the international political agenda in the 1980s (Singer 2008). The scientific discourse on forest parks (legally designated protected forests) oscillates between the question of whether parks, fences and fines adequately protect biodiversity and the extent to which local residents should be involved in decision-making processes, should take on management responsibilities, and might wisely use some of the natural resources in protected areas (Hayes 2006). The advocates on 'people-free' parks focused on the protection of biodiversity by prohibiting human access . For many years this contested perspective dominated. At global level, however, the discourse on forest conservation became strongly influenced by sustainable forest management ideas after 1987. Now the 'sustainable use of forest resources' became part of the forest conservation agenda. Parks and people were no longer exclusively separated.

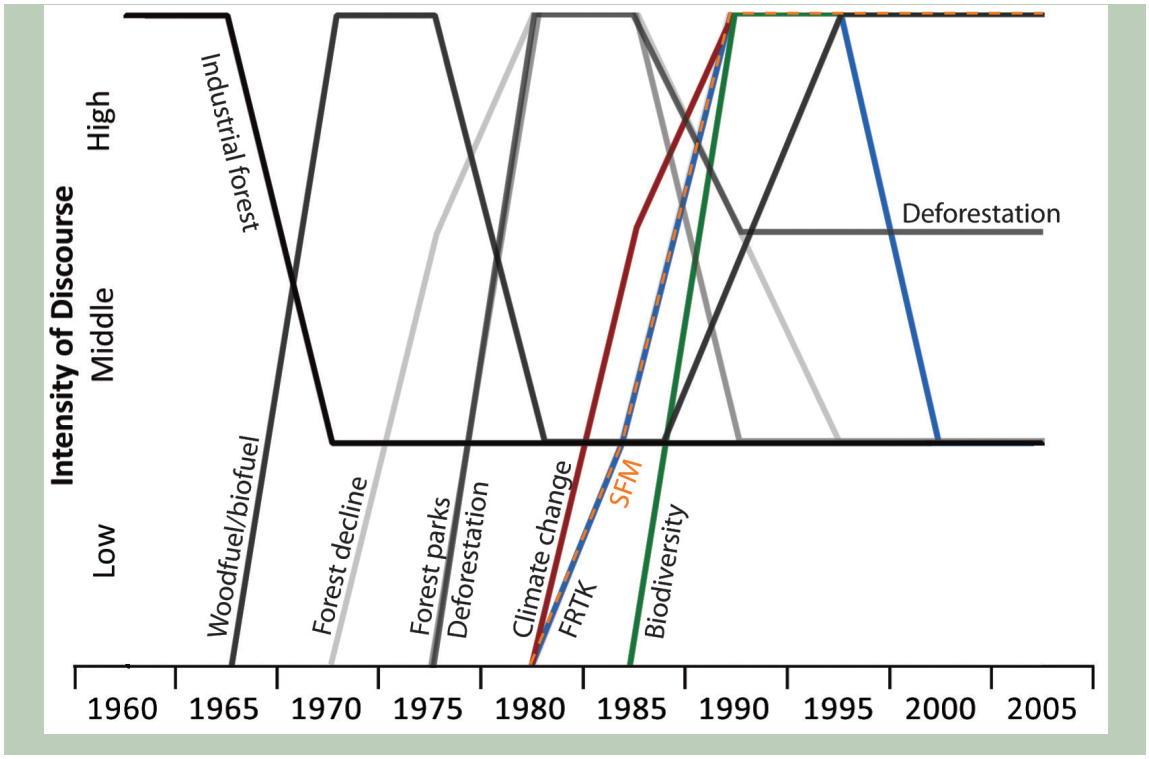

Figure 4.2 Intensity of forest discourses 1960–2005.

Box 4.2 Forest discourse in Africa

During the colonial era, European colonists greatly admired Africa's tropical forests for their exotic nature and complexity. They embarked on programmes of forest conservation, which resulted in the protection of large areas of forest. Most existing protected areas on the continent were created during the colonial period. After independence, however, in most African countries the views and discourses on forests underwent a series of changes driven by the quest for rapid economic development.

In the 1960s, the growth of the agricultural sector was very high on the agendas of all the newly independent African countries. For most, economic development was to be achieved through the production of cash crops such as cocoa, coffee and cotton and natural forests were considered simply as land reserves for agricultural expansion. In Cameroon, for example, natural forests were seen as potential areas for cocoa cultivation; the government facilitated land ownership for those people able to increase the value of rural lands by cutting down forests to establish cocoa farms, and international investors were invited to invest in industrial farms.

During the 1970s and the 1980s, partly because of the timber firms that were established to take advantage of cheap logging rights, the political elite started to identify the forest industry as a substantial contributor to national economies through enhanced foreign exchange earnings. In some Central African countries (e.g. Cameroon, Congo and Gabon), projects initiated with the support of the donor community conducted national forest resource inventories to enable better planning of forest industry development. In parallel, feasibility studies were undertaken for the establishment of large-scale timber-processing firms for the production of plywood, veneer and pulp.

After UNCED a new discourse was initiated that emphasised the need for sustainability in the management of African forest resources. Political stakeholders became eager to show their awareness of the key role they could play in both the sustainable management of natural resources and the development of the human societies they represented. An important moment in this discourse was the First Central African Heads of State Summit on Forests, which was held in March 1999 in Yaoundé, Cameroon. In the resultant Yaoundé Declaration, the Heads of State proclaimed: "*The Heads of States proclaim: …their commitment to the principle of biodiversity conservation and the sustainable management of the forests ecosystems of Central Africa…the right of their peoples to be able to count on the forest resources to support their endeavors for economic and social development*"

Box 4.3 Forest discourses in Asia

Until the mid 1970s, most Asian countries were characterized by widespread poverty and economic growth was a top priority. Many countries used their vast and rich natural forests as engines of growth. Investments in forest industries increased dramatically, and the sector generated much-needed revenue to fund national development and the fight against poverty. During much of the 1970s and 1980s, forests were valued almost exclusively for their timber.

A significant shift began to take place in the mid 1990s as, increasingly, forests came to be valued for their environmental and ecosystem services. With this new valuation, efforts to restore and protect forests gained momentum. To some extent, this turnaround was triggered by the outcomes of the UNCED in 1992, and national governments began to realise that overexploitation had massive environmental and economic impacts. Logging bans became fashionable; in many countries, they are still in place. Most countries – and particularly China, Viet Nam and India – have also expanded protected areas and planted billions of trees on degraded lands. Most Asian forests are formally owned by the state. Hundreds of millions of rural people, however, are dependent on forests for their livelihoods, and thousands of domestic and international investors want to obtain land for development. As many actors simultaneously lay claims to forests, conflicts inevitably arise, often involving local communities and indigenous peoples against forest industries and governments. In the past, local resistance to forest exploitation was often labelled as 'anti-government' or 'anti-growth'. When deforestation rates increased dramatically during the 1980s and 1990s it was therefore only a small step for local people to be branded forest destroyers. Shifting cultivation was, and to some extent still is, identified by governments, forest industries and development agencies as the main cause of deforestation.

By the 1990s, anthropologists had begun to show that blaming shifting cultivators for deforestation was both unfair and ungrounded. Shifting cultivation can be a sustainable practice that does less damage to forests than commercial logging operations. Traditional and indigenous knowledge became increasingly valued, with various local forest management systems described and recognised as sustainable and beneficial to biodiversity conservation. Widespread forest fires in 1997 also made clear to the world that small-scale farmers were not the main culprit, but large-scale plantation development was. Ultimately, local people came to be viewed as part of the solution to deforestation and forest degradation and as potential guardians of the forest.

4.4.5 Forest decline

The discourse on forest decline started in the late 1970s, hitting its peak in the mid 1980s. The starting points of the discourse were emerging environmental issues in Central and Eastern Europe (Hajer 1995; Hinrichsen 1987), and in the eastern part of North America (Skelly and Innes 1994). Forest decline was part of the acid-rain debate, in which acidic depositions produced by industry and traffic were held to negatively affect forests. The pollution prevention and precaution approach became the dominant policy on acid rain and thus the forest-decline discourse was linked to the ecological modernisation meta discourse (Hajer 1993). The forest-decline discourse coincided with growing interest in environmental issues (Kleinschmit 2010). Although the discourse is no longer hegemonic, the term forest death and even its original German variant *Waldsterben* is still used, albeit no longer restricted to acid rain (Krumland 2004).

4.4.6 Sustainable forest management

The SFM discourse is congruent with the meta discourse on sustainable development. It drew attention away from developing countries with tropical rainforest towards global threats to forests, raising issues such as participation, the distribution of production and consumption, and financial assistance and technology transfer from developed to developing countries (Holmgren 2008). The emphasis of SFM changed over time, away from timber production as the dominant use towards a broader understanding of the role of forests and their multiple-use management (e.g. Wang and Wilson 2007). This has especially been true at the global political level, where forests are increasingly understood as part of the global ecosystem and the importance of their global functions is gaining recognition. However, although the SFM discourse was meant to turn attention away from tropical rainforest countries, it has been criticised from within such countries for perceived Western bias (Bending and Rosendo 2003; Boyd 2009; Palmujoki 2009).

A more radical discourse, which centres on ecosystem management, is linked to SFM. This discourse, which originated in North-America in the 1970s, considers that nature is not only useful but also has intrinsic values (Dekker et al. 2007).

4.4.7 Forest biodiversity

The biodiversity discourse was cleaved by the diverging interests of developed and developing countries (Forte 1999). Since UNCED the biodiversity discourse has been associated with the discourse on social justice (Zhouri 2004). Besides conservation objectives, the issue of forest biodiversity has been intrinsically linked to access to resources and technology as well as to benefit-sharing in the sustainable use of forests. Since a global instrument for biodiversity, but not for forests, was agreed upon, forest biodiversity is dealt with globally mainly under the umbrella of the Convention on Biological Diversity (1992). However, critical scholars argue that the global agenda is driven by 'traditional forestry' because the focus has been on tradable biological and genetic resources – just as previously it was on timber (Forte 1999; McAfee 1999). Forte (1999) recognises a decreasing intensity in the biodiversity discourse, explained by a shift from the 'old' argument of protecting biodiversity for itself towards an argument of conserving tropical forests to address climate change. On the basis of this argumentation, some authors frame the global forest biodiversity discourse as ecological neo-liberalism, driven by supranational environmental institutions like the World Bank (McAfee 1999).

4.4.8 Forest-related traditional knowledge

The discourse on forest-related traditional knowledge mainly focuses on developing countries and their indigenous peoples and local communities living in forests. A major issue is the protection of intellectual property rights (Rosendal 2001). The discourse is closely linked to issues such as biopiracy, bio-prospecting, sustainable use and indigenous peoples as conservationists (Newing 2009). Besides the 'simple' knowledge about forests and their useful products, this discourse addresses the symbolic meaning of forests – such as forests as 'cultured spaces' or as 'wilderness' that remains beyond human control (Nygren 1999). The convergence of the discourse on forest-related traditional knowledge and the discourse on SFM has been emphasised by several scholars (e.g. Humphreys 2004). However, the importance of the former decreased during the late 1990s.

An alliance of forest peoples, developmental NGOs and conservationists played an influential role in the emergence of the forest-related traditional knowledge discourse in the early 1990s (Newing 2009), building a public image of indigenous peoples as 'natural conservationists' who have important traditional knowledge. By mid 1990s, however, the compatibility between biodiversity conservation, development and indigenous peoples was increasingly being called into question. This was due largely to the further recognition of indigenous rights by the United Nations, which reduced the reliance of indigenous peoples on the alliance (Newing 2009).

4.4.9 Forests and climate change

Climate change gained international attention in the mid 1980s (Cohen et al. 1998). Since then 'forests in the context of climate change' has been part of a managerial discourse (Boyd 2009; Decasper Chacón 2009). Discussion on the Clean Development Mechanism (CDM) and reduced emissions from deforestation and degradation (REDD) are examples of attempts to find economically efficient solutions for several problems at once: deforestation, forest degradation, livelihoods and climate change (Boyd 2009). The global debate on forests and climate change currently focuses on REDD, which was placed on the global agenda in 2005 by the Coalition for Rainforest Nations (Papua New Guinea, Costa Rica and some other countries), supported by environmental NGOs (Boyd 2009). Ariell (2010) argues that the current debate on REDD is influenced by, among other things, the neo-liberalism discourse. Other critics are worried that biodiversity and livelihoods will be neglected or even sacrificed in an effort to maximise carbon budgets, or that REDD will diminish the incentives to change consumption patterns in developed countries in order to reduce carbon dioxide emissions (Lemos and Agrawal 2006).

4.4.10 Illegal logging

Another forest discourse emerged in the late 1990s when illegal logging became a major issue in international forest governance. The term was first mentioned in international negotiations in 1996 (McAlpine 2003) and again by the G8 Action Programme on Forest in 1998 (Humphreys 2008). By 2001, donors spearheaded by the United States Department of State, United Kingdom Department of International Development and the World Bank had

Box 4.4 Forest discourse in Latin America

In Latin America the development of forest policy instruments reflects changes over time in the legal and forest discourses. Early forest legislation was oriented predominantly toward forest extraction. For example, Ecuador's first forest law, enacted in 1875, declared public forests open to exploitation by all; an amendment in 1913 established taxes on the harvest of industrial wood. Nonetheless, the implementation of early forest laws was limited throughout the region and their influence on forested landscapes was minimal compared to the influence of agro-development policies that promote forest clearance for access to land and title.

By the mid 1900s, most Latin American countries had developed forest legislation that defined forest areas for protection and production, regulated forest harvests, taxed forest production, and established incentives for reforestation. Awareness of deforestation in Latin America and its impacts not only on economic but also environmental and social values grew domestically and globally during the 1960s and 1970s. This growing awareness was reflected in the contemporary public discourse, which included debate on 'protection versus production' and the development of forest policies that increasingly incorporated production, protection and conservation elements. Such forest policies principally took a command-and-control approach to forest use, and their influence was limited by a lack of enforcement.

Although most Latin American countries had, by the early 1990s, embraced and in many cases surpassed a goal of incorporating 10% of the total land area in protected areas, forest loss continued, as did pressures on the forest sector; this, in turn, often gave rise to increasingly complex forest management regulations at the domestic level. Such regulations echoed an increasing recognition of ecological and social forest values common to the international forest discourse and related agreements (e.g. Agenda 21, the Forest Principles and the International Tropical Timber Agreement – ITTA) at that time. For example, as indigenous and community forest rights became more prominent in the global forest discourse, conflicts emerged throughout Latin America between legal and customary access to forest resources, often leading policymakers to integrate indigenous and community rights into national forest policies and other related policies.

During the 1990s an effort was made to decrease state involvement in forest control, for example through the devolution of public forest lands, the development of fiscal incentives for sustainable forest management and reforestation, and the promotion of forest certification; nevertheless forest loss and degradation persisted in the region. In the early 2000s, new approaches to forest governance appeared that increasingly incorporated multiple instruments and actors in the administration of forests and their uses. In 2010, governmental forest regulation remains a key instrument in overall forest policy in most Latin American countries, as demonstrated by the recent and ongoing development of new forest laws across the continent. Notably, these new laws reflect a broader focus that aims to balance the production of forest goods and the protection of forest services. Moreover, forest policy processes have shifted from being predominated by governmental organisations towards a more pluralistic institutional structure that also incorporates the private sector and civil society.

convened on a process known as forest law enforcement and governance (FLEG) (Singer 2008). FLEG is designed to encourage the enforcement of forest laws in tropical countries and the eradiction of illegal timber from the domestic markets of importing countries. Participatory forms of governance have also been encouraged by FLEG (Bass and Guéneau 2005).

The G8 and World Bank have played major roles in developing the illegal logging discourse in general. Subsequently, the World Bank played an important role in the development of the Forest Law Enforcement and Governance processes in particular, and the European Union took up the issue in its Forest Law Enforcement, Governance and Trade (FLEGT) action plan (Gulbrandsen and Humphreys 2006). A number of NGOs have incorporated it in their campaigns, and the issue is also being addressed through bilateral and regional collaboration (Bass and Guéneau 2007).

4.5 Conclusions

This chapter reviewed the changes in global discourses and their related impacts on actors and policy instruments that have shaped international forest governance since the 1960s. Based on this longitudinal analysis, a number of conclusions can be drawn on forest(-related) discourses; actors; policy instruments; policy making; and public policy analysis.

4.5.1 Forest(-related) discourses

Various meta discourses that relate to forest policy as well as to other environmental policy areas are found in the scholarly literature: they are discourses on modernisation, limits to growth, sustainable development, ecological modernisation, neo-liberalism, civic environmentalism and global governance. These evolved over time and are rather well described in the scientific literature. Some discourses (e.g. ecological modernization and sustainable development) are said to be overlapping, some (e.g. limits to growth and sustainable development) are mutually exclusive, and others (e.g. sustainable development and neo-liberalism) are inclusive and seem apparently not contradictory. While the discourses on limits to growth, ecological modernisation and sustainable development succeeded each other with relatively little overlap, those on neo-liberalism, civic environmentalism and global governance have taken place more-or-less simultaneously. Three relevant regulatory discourses (regulation, de-regulation and smart regulation) were identified in the global forest policy literature; although they were initiated in sequence, they still exist in parallel and in combination.

These meta and regulatory discourses relate to other, more specific forest discourses on industrial forestry; the woodfuel crisis; deforestation; conservation in forest parks; forest decline; sustainable forest management; forest biodiversity; forest-related traditional knowledge; forests and climate change; and illegal logging. Some are relatively local (e.g. woodfuel) or focus on a specific group of countries (e.g. forest-related traditional knowledge), while others are more global (e.g. sustainable forest management). Some discourses have been reframed (e.g. the discourse on woodfuel and deforestation), some have lost importance (e.g. industrial forestry and forest decline), and others (e.g. conservation of forest parks) have been absorbed by the hegemonic sustainable forest management discourse.

4.5.2 Actors

From a discourse-theoretical point of view, discourses are said to influence actors' roles and perceptions and the other way around. However, we did not find many examples of scholarly work that directly linked actors' behaviour to discursive dynamics (or vice versa). The following roles of actors in the development of discourses feature prominently in the literature: (1) the role of NGOs in for example the sustainable development, illegal logging and forest certification discourses; (2) the role of international institutions such as the World Bank and the International Monetary Fund in the shaping of neo-liberalism and global governance; (3) the influence of business on for example the certification and CSR discourses; and (4) the roles of developed and developing countries in inhibiting the negotiation of a legally binding convention on forests.

Based on the literature review it can be concluded that discursive change can bring about changes in the types of actors that are involved in global forest governance. This governance system was dominated by states until the 1980s, the period during which the limits-to-growth discourse was hegemonic. The roles of non-state actors (including both private and civil-society actors) have grown significantly since the 1980s, when the ecological modernisation and sustainable development discourses were starting to dominate. The role of the Bretton Woods institutions in global environmental and forest politics has also become more prominent and they have been active in the development of policies that fit the neo-liberalism and ecological modernisation discourses well. However, the current hegemonic discourses tend to exclude specific types of actors, such as those NGOs with more radical perspectives and political critiques. They are increasingly being replaced by (more) moderate NGOs, whose strategies better match the current discourses on sustainable development and global governance.

4.5.3 Policy instruments

Three developments in the choice of policy instruments in global forest policy making can be observed in the literature. In the early 1970s, governments preferred command-and-control instruments for regulating environmental degradation. These were in line with discourses on woodfuel, deforestation and forest conservation. During the 1980s, however, the de-regulation discourse which held that market forces would take care of the environment, became vogue, in line with neo-liberal ideas. In the 1990s there was a shift towards governance and so called 'smart regulation' which seeks to apply more pluralistic approaches to environmental protection. These changes in the choice of global instruments has gone hand-in-hand with a shift from hard to soft law. In the 1970s and beginning of the 1980s, legally-binding treaties that relate to protection issues (e.g. Ramsar Convention on Wetlands, Convention on International Trade in Endangered Species and Wild Fauna and Flora – CITES and ITTA) were concluded. In the 1980s and early 1990s, legally-binding instruments referring to both protection and management issues were agreed on (e.g. Convention on Biological Diversity – CBD, United Nations Framework Convention on Climate Change – UNFCCC and United Nations Convention to Combat Desertification – UNCCD), but a globally

binding forest treaty could not be concluded. More recently, several soft-policy instruments on forest use, management and conservation have been concluded by governments or initiated by civil society groups (forest certification schemes).

4.5.4 Policy making

What policy-relevant insights and lessons can policymakers draw from this chapter? It is difficult to directly retrieve useful policy recommendations from a review of scientific literature in which different (and often opposing) authors, approaches and policy perspectives are integrated. This is even more the case for discourse-theoretical perspectives, which generally do not lend themselves to 'linear' recommendations (i.e. 'if policy A, then effect B'). Nonetheless, we deem the following messages to be relevant:

1. *Understanding and embracing complexity:* Our review makes it clear that international forest governance is so complex because it is fuelled by and nested in many meta, regulatory and forest discourses that are taking place simultaneously. Although discourses may come and go, many exhibit a *long durée*, so that ever more forest(-related) discourses exist in parallel over time. Policy actors may be influenced by all of them – often subconsciously – or they may deliberately pick and choose ideas and arguments from them, for example to make choices on certain legal instruments. Hence, global forest policy making is far from coherent and consistent. This is not due to a lack of rationality in the system, but a consequence of (unacknowledged) discursive diversity. Hence, it seems better to acknowledge and embrace this discursive complexity than to try to reduce it artificially.
2. *Awareness of discourses can improve negotiations:* As discourses impact on actors' understandings and the way they rationalise policy problems, they also guide the formation of actors' interests and preferences. Neither interests nor preferences are written in stone. Scholars have shown that the influence of discourses on actors' perceptions of problems, preferred instrument choices and employed practices is substantive. Regularly, actors unconsciously identify themselves closely with certain (meta-)discourses, influencing the manner in which they frame issues. Thus, improved awareness about the development of discourses, relations among discourses, and one's own 'discourse attachments' can help policymakers to put current negotiations into perspective, to more easily take the lessons learned from earlier policy initiatives into account, and to link forest negotiations to other discussions and meta discourses, thereby improving the negotiation process.
3. *Discourses can be reframed collectively:* Once actors are able to distinguish between discourses (e.g. neo-liberalism or SFM) and their employed mechanisms they can try to reframe the dominant discourses so that they resonate with their own policy preferences, thus granting such preferences more legitimacy and authority to the latter. To do this requires collective action and long-term commitment. Some scholars have developed 'framing strategies' to better relate individual and group frames to societal discourses (Benford and Snow 2000) Reframing can also be used to create synergies among actors. For example, global forest policy might need a new collective frame in order to overcome opposites in the current policy arena, to re-energise policymaking and to meet challenges such as climate change and competing claims on forest resources.
4. *Need for open and deliberative arenas:* In order to make such reframing processes possible, open discursive arenas´ that allow the participation of relevant state and non-state actors, are needed to enable the deliberations and social learning necessary to create a new global forest policy that is future-proof. Here, participation should not be a hollow phrase. All relevant arguments should be heard, not only those of the 'usual suspects'. A global forest policy that is capable of meeting future challenges needs all the creativity and intelligence that it is possible to mobilise. This is not to say that a one-solution-fits-all outcome should be the result or that this will be possible or desirable once all arguments are on the table. On the contrary, the complexity of the forest issue and the need for future-proof policies require reflexive learning and adaptive management that enables experimenting, allows multiple pathways and accepts failure as part of a learning process that enables progress.

4.5.5 Public policy analysis

Given the high number of publications we encountered in the literature, discourse analysis is rather popular among forest policy scholars. We found, however, that the scholarly literature is fragmented with regard to the use of discourse-theoretical approaches. While some authors use the term discourse as a label for 'discussion', others employ diverse theoretical concepts that stem from various schools in a sometimes unsystematic manner. This creates confusion. This urges for more attention to be granted to theoretical concepts and methodological techniques.

In addition, the scholarly literature is biased towards certain topics (e.g. neo-liberalism). Scholars should broaden their views and become (more) embedded in the general discourse theoretical literature as well as in the broader international relations literature.

Our review also shows that discursive shifts have rarely been analysed systematically. Nor did we find many references to discursive change agents, such as epistemic communities (Haas 1992) in the forest policy literature. This is particularly surprising given that scholars have concluded that scientific expertise has considerably framed other environmental debates (e.g. on climate change). Also, while individual leaders, such as Maurice Strong, Mustafa Tolba and Gro Harlem Brundtland, played particular important roles in global environmental governance (O'Neill 2009), the role of leadership has not been analysed in relation to forest policy. Thus, further research is necessary to systematically explain the shifts in forest discourses that have taken place, as well as to understand the policy roles played by scientists and individual leaders.

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5 Forests and sustainability

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Abstract: International forest governance has developed and evolved as concern for sustaining forests grew beyond the local level, culminating thus far in numerous institutions at the global level, each of which claims some mandate over various aspects of forest or forest-related policy. This situation can be understood as a result of the evolution of conceptualisations of what sustaining all forest values entails, which itself is the result, at least in part, of both shifting international interests and the relative dominance of various forest values in the different institutions. This chapter explores conceptualisations of forest sustainability as manifested in some of the key global instruments existing today and proposes reasons why these have not yet succeeded in achieving the overall goal of sustaining the world's forests.

Keywords: Forest, sustainability, sustainable forest management.

5.1 Forest sustainability: an evolution

Forest policymaking at the global level does not take place within an engineered structure or a designed architecture. Global forest governance is, rather, the fragmented product of a disjointed evolution, with increasing numbers of global intergovernmental entities and instruments, both binding and non-binding, having authority over specific aspects of forests. Various, sometimes conflicting, views and interests with regard to forest sustainability, as well as shifts in interests and in the dominance of certain concerns over others, have directly influenced the creation and development of global instruments with a mandate on forest policy. Both the piecemeal nature of international forest governance and the reasons for its evolution in this way have implications for its effectiveness, the issue that implicitly underlies this report.

The relationship between sustainability and international forest governance dates back to the first recognition of forest deterioration and loss of forest goods and services upon which human societies depend, and to recognition of the need to take measures to sustain forests (Mather 1997). From time immemorial, human societies have manipulated the structure and composition of forests, in response to the same drivers that led to the domestication of livestock and food plants (Rackham 2001). In many forest communities, the effects of the over-harvesting of forest goods and unreliable natural regeneration have long been appreciated, for example when there are noticeable reductions in populations of game animals or in the size or number of tree fruits and nuts (Lamb and Whitmore 2002). Forest degradation and deforestation have been recognised for at least 2500 years in Europe and even longer in Egypt and China. A vast literature from ancient civilisations about denuded hills losing topsoil after forest degradation and deforestation testifies to ancient awareness of basic principles of ecosystem sustainability, even if such awareness may not have prevented ecological problems. Some societies were able to recover their forests, and others were not. The Fertile Crescent was historically just that; today it is mainly desert (Diamond 1999: 410–411; Geist 2005: 5; Meiggs 1982).

Numerous communities in the world are credited historically with having instituted forest management systems, as recorded in oral and written traditions, that recognised and sustained natural forests, woodlands and trees as providers of goods and services. Many traditional systems of forest management, such as shifting agriculture, have depended on being able

to move centres of exploitation periodically to allow forest or particular species to regenerate. For example, researchers in Malawi found that over 90% of the Miombo woodland had been cleared during the previous two centuries by indigenous people engaged in shifting agriculture (Young and Brown 1962). Such 'shifting' forest management becomes less feasible as the available space diminishes (Ranjan and Upadhyay 1999).

In some cases, however, awareness of potential shortfalls in supply of forest goods and services led to the development of rules for allocating harvests such that supplies could be sustained (Bray et al. 2003; CBD Secretariat 2009; Clay 2001; Colchester 1994: Rietbergen 1993; Sunderlin et al. 2005). The English Charter of the Forest 1217 of Henry III complemented the Magna Carta of 1215 (Osmaston 1968:310–22). Successive waves of local regulation responded to increased threat of snow avalanches due to forest loss in the Swiss Alpine village of Andermatt in the 14th century (Mather and Fairbairn 2000).

The modern era of concern about forest sustainability beyond a relatively local scale can be traced to a timber supply crisis in Europe 300 years ago. This crisis was caused by factors such as overcutting for fuel (including for smelting mineral ores and glassmaking), the use of timber for construction and in mines, livestock grazing which prevented regeneration, and forest loss during the Thirty Years' War. Forest-dwelling people lost income, suffered from floods, soil erosion and avalanches, and lacked leaf litter for winter bedding, fodder and soil fertility. The crisis led to the pursuit of 'scientific forestry', particularly in France, Germany and Switzerland. Although scientific forestry was concerned primarily with timber demand and relied heavily on the quantification of predictable and sustainable timber yields, its principles took into account limitations in the capacity of forests to regenerate, and there was a substantial ecological component (Maryudi 2005; Hardcastle et al. 1998; Lowood 1990; Klose 1985; Knuchel 1953; also see Oosthoek 2000; Vierenklee 1767; and von Carlowitz 1713). The scientific approach was subsequently exported to many countries outside Europe (Barton 2002). However, the much greater ecological complexity of certain forests elsewhere, combined with limited ecological knowledge and, later, pressure to increase the return on capital from the forest resource, meant that in many cases it was much less effective in sustaining forests than it was in Europe.

Return on capital is the focus of 'maximum yield' forestry, which came to dominate in influential countries, such as the US, where problems associated with forest loss were not as visible as they were in Europe. Under this approach, timber yield is maximised in the short term for strategic or investment purposes. It is driven by economics, in particular by competition for investment funds and/or the requirement for a high rate of return on capital (Brown 1999; Hardcastle et al. 1998, 1999; Hardcastle and Davenport 2010). Maximising financial returns from forests leads to a predominance of intensive, short-rotation crops based on high-yielding monocultures grown as cheaply as possible (Perley 2003). Maximum yield forestry, in both plantations and natural forests, came to dominate in aid and development plans in some parts of the world after the Second World War. It lies at the root of many recent criticisms of forest management generally, particularly in tropical countries (Banuri and Marglin 1993; Innes 1993; Lansky 1992).

The first global intergovernmental body to address forest sustainability was the Food and Agriculture Organization of the United Nations (FAO), which was formed in 1945 (Kone et al. 2004). The FAO Forestry Department had a specifically technical focus on sustaining and replenishing the world's supply of timber in the aftermath of the Second World War. Despite good intentions, however, FAO was unable to halt the increasing loss of forest at the global level. There were many reasons for this but two were particularly significant. First, FAO's early efforts neglected the ecological requirements of the forests. This was due at least in part to its focus at the time on plantations of exotic timber species, given the dominance of the maximum yield paradigm in many influential countries and FAO's role as a technical organisation under the direction of its member countries (FAO 1945). Indeed, FAO's focus on plantations can still be seen in the highly influential FAO definition of forest, which includes monoculture tree plantations (Lange 2004; also see Sasaki and Putz 2007). Second, FAO was given no mandate to address the causes of deforestation arising outside the timber sector, such as the conversion of forestland for agriculture (ibid.).

In the US, however, in the 1950s and 1960s, competition for land increased, particularly in areas of population growth, causing the 'maximum yield' paradigm to be superseded by a 'multiple use' approach aimed at the sustained provision of an optimal mix of dynamically varying products and services for humans (McArdle 1960; US Government 1960; Wiersum 1995).

With continuing forest loss in other parts of the world, particularly the loss of primary forest values, new concepts of forest sustainability such as 'ecosystem-based forest management', 'new forestry', and 'close-to-nature forestry' emerged in the 1980s and 1990s. These based pursuit of sustainability of the forest resource on sound ecological models which included consideration of ecosystem complexity, the adaptability and accountability of management practices, the human role in achieving ecosystem sustainability, and human needs within the constraints of ecological objectives (Christensen et al. 1996).

Most of the international and global institutions that address forest-related issues today were influenced, however, by the report of the Brundtland Commission (WCED 1987), which interpreted sustainability through the lens of development, expressed in the concept of 'sustainable development': meeting the needs of the present without compromising the ability of future generations to meet their own needs. This definition rests on what has come to be called the three pillars of sustainability – social, economic and environmental needs and values.

Sustainable development became the theme of the 1992 United Nations Conference on Environment and Development (UNCED) and a catchphrase in multitudes of processes that stemmed from it. The term clearly implies that the environment is subordinate to human needs, as does 'conservation', a term used in earlier environment-related negotiations. Reference to sustainable development was intended, however, to help build a perception that environmental concerns are part and parcel of human welfare and of improving human welfare through development and thus to increase global acceptance of the need for environmental sustainability.

The goal of sustainable forest management (SFM), which became the guiding principle of forestry today, builds on the three pillars of sustainable development. Probably the most often-cited definition of SFM is that formulated by the Ministerial Conference for the Protection of Forests in Europe in 1993 and later adopted by FAO. It is:

The stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems (MCPFE 1993).

While this definition itself leaves open many questions of how SFM should be achieved, the much more recent Non-legally Binding Instrument on All Types of Forests, negotiated by the United Nations Forum on Forests in 2007, merely calls SFM "a dynamic and evolving concept aim[ing] to maintain and enhance the economic, social and environmental value of all types of forests, for the benefit of present and future generations", a much weaker text. Given the ambiguity built into this definition of SFM, it is unsurprising that Global Witness (2009: 4) observes that "many operations claiming to practice SFM fail to achieve even sustained timber yields, let alone sustainability with regard to other non-timber values such as biodiversity".

Ultimately, SFM must be put into practice on the ground by forest users and managers, depending on their own priorities in different contexts. Various conflicting interests underlie differences in the interpretation of SFM (Schanz 2004) and it is possible that very influential sub-state actors have an interest in paying lip-service to the ideal of practising SFM without actually halting unsustainable practices on the ground. Indeed, debates over SFM during the negotiation of the NLBI indicated that some states were interested in omitting definitions of SFM altogether, in order to allow more leeway for their own interpretations that perhaps have little to do with sustaining forests (Davenport et al. 2007).

5.2 Contrasting intergovernmental approaches to sustaining forests

Given existing definitional weaknesses of SFM, it is little wonder that different conceptualisations of sustainability have been formulated within two significant binding regime frameworks of relevance to forests: the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC). Global policy-making on biodiversity conservation has centred on an 'ecosystem approach', not as a scientific term but as negotiated politically, to address sustainability in all ecosystems, including forests.

Forests are not mentioned specifically in the text of the CBD. There are, however, forest-relevant sections in the text and a CBD Forest Programme of Work; the latter was adopted in 1998 and expanded in 2002 to include both research and practical action (CBD Secretariat 2010).

Both the CBD Conference of the Parties (COP) and FAO have addressed the relationship between SFM and the ecosystem approach by generating knowledge on it through research (e.g. Wilkie et al. 2003) and, in the case of the CBD COP, formally recognising that:

SFM, as developed within the framework established by the Rio Forest Principles, can be considered as a means of applying the ecosystem approach to forests.

Decision VII/11, paragraph 7, 2004.

An international coalition of NGOs also recognised that:

There has been a widespread movement in Canada towards adopting sustainable forest management in the broad sense, bringing consideration of other values besides timber yields into forest management planning. For example, emulation of natural disturbances has been incorporated into public policy in most jurisdictions as an approach intended to fos-

ter ecosystem-based management. This approach is compatible with the Ecosystem Approach enshrined in the CBD/POW.

(Global Forest Coalition 2008: 17)

Forest management practices have been addressed in a slightly different way within the global climate change governance structure. Specifically, negotiations stemming from the 2007 Bali Action Plan have taken up consideration of "[p]olicy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries [(REDD)]; and the role of conservation, sustainable management of forests [(SMF)] and enhancement of forest carbon stocks in developing countries" (UNFCCC 2008: 3). The potential inclusion in REDD of the role of conservation, SMF and the enhancement of forest carbon stocks in developing countries has been termed 'REDD+'.

Braatz (2009) notes that SMF refers only to "the application of forest management practices primarily for sustaining carbon stocks over time". Blaser and Thompson (2010) favour including the wider concept of SFM, as applied in production forests, in REDD+ because unsustainable forest management degrades living biomass and reduces the carbon stocks in forests, while natural forest that is managed sustainably for timber and non-wood products maintains all major functions related to the production of goods and services, including the maintenance of carbon stocks, over time.

These battles over labels have almost no resonance outside convention halls or practical significance with regard to sustaining forests themselves. Politically, however, it matters which of these instruments – with their various conceptualisations of sustainability – guides forest-related activities and projects because it affects the distribution of donor funds. Far more money is being pledged to support forest-related activities that address climate change than to support any other forest values – although, as of mid 2010, only a few of these pledges have been converted into money flows (Broder and Rosenthal 2010; CFA 2010; Zwick 2010). Nonetheless, although climate-related funding for forest activities may enhance the sustainability of other forest values, these are considered only 'co-benefits', or side benefits, of activities to mitigate or adapt to climate change (Angelsen et al. 2009). Conflict between maximising the carbon sequestration potential of forests and other forest values is becoming increasingly heated (Humphreys 2008; White 2010). Within the UNFCCC, REDD will hinge on resolving these conflicts. Meanwhile the funding mechanisms for afforestation and reforestation in developing countries that already exist under the UNFCCC's Kyoto Protocol have distributed very few funds for forest-related endeavours (Davenport et al. 2009).

The potential effects of REDD funding on the economic and social pillars of sustainability are of particular concern. Noting cases of violations of the human rights of indigenous individuals who refuse to leave territories proposed as carbon sinks, the United Nations Permanent Forum on Indigenous Issues has argued that proposed REDD mechanisms will lead to the further exclusion of indigenous people from their forests and to the criminalisation of their traditional livelihoods (UNPFII 2008). 'Land grabs' for carbon are already occurring in many countries without consultation with local forest users (Vidal 2008). If traditional, legal activities are curtailed by measures to maintain or enhance carbon stocks, it can be argued that there is a moral obligation to provide options for other livelihoods of at least equivalent value.

While free prior and informed consent (FPIC) is now advocated by a number of entities promoting REDD, there can be no FPIC without an explanation of REDD in terms that are meaningful to stakeholders. REDD deals may not be explicit about the time periods over which they will run and the beneficiaries/sellers of carbon credits may not understand the notion of permanence associated with temporary payments and time-limited contracts (Wittman and Caron 2009). Insurance companies involved in carbon trading need to better explain the legal and financial consequences of such trading in cases where there are either accidental or deliberate losses of carbon stocks; those explanations that exist are often not available in wording suitable for local communities and therefore FPIC should not be claimed (although some countries do assert that FPIC has been obtained) (de Chavez and Tauli-Corpuz 2008; Griffiths 2007).

Even putting aside the questions that potential REDD funding raises about power, influence and the prioritisation of some forest values over others, forest sustainability – whether denoted as SFM or the ecosystem approach – has not been well served by any of the fully established international policy instruments relevant to forests. This is evident from the poor forest practices that still dominate in many regions. Indeed, forest practices in some former colonial territories are actually worse today than they were before independence, due to unfortunate combinations of factors (see, for example, Kowero et al. 2001).

5.2.1 Differing interests and forest sustainability

The inability to sustain forest or to restore it when it is lost is related to causes of deforestation and forest degradation themselves. Forests are vulnerable to the effects of numerous drivers, usually arising from competition for forest resources or for other resources associated with the land on which the forest sits. The Intergovernmental Panel on Forests (which existed from 1995 to 1997) distinguished between direct causes (i.e. forest conversion or deliberate modification) and underlying causes (i.e. a series of causal events that result in an observed effect), stressing that the links are complex and vary greatly from country to country. Most of these drivers result from human actions and interactions that embody differing interests in forest lands, combined in many cases with significant differences in power.

The desire to sustain a forest depends on whether other interests exist, such as in converting forestland for cultivation or another purpose or in obtaining a short-term benefit from the unsustainable harvesting of forest products in the context of high discount rates, as might be associated with imminent threats to survival. Wear et al. (1998: 350) point out that "in most cases it is not the value of forests that determines whether land becomes forested [or deforested]; rather, it is the relative value of non-forest uses of land". Even a common interest in maintaining a forest does not obviate tensions, as there are numerous, frequently incompatible, reasons for such interest and no guarantee that they can all be met. Tensions thus exist across a broad spectrum of forest issues, between various interest groups. Indeed, in some areas, links between forests and open, violent conflict are increasingly recognised (e.g. IUCN 2008; Wallace and Conca forthcoming).

In some cases, poverty at its most fundamental level may necessitate the conversion of forest lands for food production, leading to a broader question of what must be sustained and what that requires. Given widening gaps between rich and poor and increasingly restrictive border controls that hinder emigration from desperate conditions, it is unrealistic to expect that all extant forests will be sustained. Without significant effort to counter it, many forests will inevitably be converted to agricultural land, regardless of the sustainability of such action and regardless of whether such conversion will ultimately lead to global ecological disaster.

The sustainability of forests depends not only on awareness of the need for forests or the myriad goods and services they provide but also on how forest values can be safeguarded in a world where private actors try to maximise their self-interests. Pursuit of self-interest conflicts with the pursuit of common goals, as has been demonstrated formally (Rapoport and Channah 1965). The pursuit of private gains rather than the common good may detrimentally affect maintenance of collective goods. This is true with regard to true public goods such as free trade, but even more so with regard to common goods that are depletable (Davenport 2006), as is the case with all environmental goods and services and those provided by forests. There are abundant empirical examples of this phenomenon associated with forests: over-exploitation for timber or other forest products; clearance for industrial development, urbanisation or other land uses such as palm, soy and cattle production (Barraclough and Ghimire 2000; Grainger 2009); and destruction by mining. Applied to forest management, then, sustainability might be defined as maximising the yield of the private goods and services that forests provide only insofar as this does not lead to the degradation of the collective goods and services provided by those forests (Humphreys 2006).

Forests have been called the "common heritage of mankind" (Kottary 1992, quoted in Davenport 2006:138) because of the global values they encompass. Yet unlike true global commons, forests lie within territory claimed by sovereign states. This means that states themselves traditionally have the power to determine, within their borders, what forest practices are legal and whether they will be enforced.

Superficially, sustainability and legality may seem congruent, but this may not always be the case. Sustainability is a normative concept that must be defined and concretised by the legislator, a process that may not adequately capture its full meaning. Given inherent conflicts around the concept, such as those between conservation and preservation, sustainability between generations and equity within one generation, and the common good versus private interests, policies and legal frameworks that do not foster sustainability should not be dismissed simply as demonstrating a lack of awareness or an arrogant lack of concern for the multiple values of forests.

Even where there is ostensible agreement on the need for sustainable forest practices, as well as on what these are and the need to enforce them, legal frameworks may have the effect of marginalising or criminalising the activities of local communities. For example, forest sustainability may be addressed through the demarcation of legally protected areas with restrictions on human access, thus making the activities of locals communities 'illegal' (for examples in India and Nepal see Blaikie et al. 2007; for examples in Africa see Brockington 2002 and Davies and Brown 2007). As already noted, this problem may resurface if forests are put aside as carbon sinks under the guise of climate change mitigation.

Legal frameworks that define acceptable and sus-

tainable practices based on industrial forest management models also sometimes criminalise traditional communities. In Brazil, the industrial model, with its many legal requirements and heavy regulations governing large-scale forest industry, has also been used as the basis for promoting community forestry, even though its technical and organisational requirements are often beyond the capacity of communities (Benatti et al. 2003). Hajjar et al. (forthcoming) report cases in which traditional communities are hindered from practising family or community forestry by a restricted interpretation of legality – if they are unable to obtain legal management plans, selling wood from lands that they manage using traditional practices and low-impact manual labour is considered illegal. Complicated bureaucracy and the high costs involved in obtaining management permits dampen the motivation to take the necessary steps for legality; this is exacerbated by mistrust and misunderstanding between the government and traditional communities and a lack of knowledge within government of the extractivist lifestyle necessary for survival in the forest. Traditional communities and the legal authorities have diverging definitions of good forest management, resulting, in a few cases, in the criminalisation of what may be highly sustainable activities.

Problems arising from domestic legal interpretations of sustainability are often exacerbated by other issues related to governance. In many countries, for example, forest management systems have become outdated with respect to demographic trends and changes in the understanding of forest values. In some developing countries, rural populations have quadrupled in the last 50 years, yet forest management systems still seek (at least on paper) to maximise timber production. There may be a lack of capacity or political will to revise and adapt forest management systems to changing rural demographics and urban demands, or indeed to address the need to sustain forests. This mismatch leads to ineffective forest management policies and procedures, which often also lead to lower production, with implications for livelihoods and human survival (Westoby 1979).

Forest management concepts and systems depend on a socio-economic environment in which the rule of law is recognised and upheld impartially and equitably. Corruption exists in all parts of the world, its severity dependent on the extent to which private interests are privileged or are able to capture particularistic benefits for themselves at the expense of the public interest (see, for example, Howlett and Rayner 1995 on clientelistic forest policy networks). Corruption is particularly problematic where feudal patron-client relations prevail, as in some developing countries. Bribery, in which business relations include gift-giving to induce favourable decisions or permission, may be the norm, possibly based on long-standing cultural rituals (Robbins 2000). In many countries "[i]t is common – indeed it is often necessary in order to stay in business – to bribe enforcement officers and customs officials" (Clapp and Dauvergne 2005:170). National and sub-national forest policies, forest product processing strategies, laws and regulations, forest management manuals, communications systems and training guides (often developed by non-national technical experts hired by donor agencies) may sit unused, in part because feudal patron-client relationships stultify objective technical approaches to forest management (Bryant and Bailey 1997; Ross 2001).

It is common that natural forests in public ownership have complex arrays of resource access taxes which are irrationally low, set arbitrarily, rarely indexed to inflation or currency movements, applied according to political criteria, minimised through bribery or improperly negotiated foreign investment arrangements, under-invoiced, rarely collected in full, or not penalised if paid late or under-paid (Grut et al. 1991). In practice, such tax arrangements may be intended to open under-the-table negotiations between politicians, government agencies and potential harvesters about who will pay how much to whom (Bulkan and Palmer 2008a, 2008b). This is far removed from recommendations for tax regimes that would help sustain forest resources and which would 1) cover the full cost of administration and field management of resources, including protection against incorrect and illegal activities (Troup 1939) and 2) compensate for the 'nature's bounty' gained from felling a natural forest with a standing volume accumulated over a very long period which cannot be recovered economically in subsequent rotations or felling cycles. In other words, nature's bounty should be taxed as a wasting asset like minable minerals, rather than as a renewable resource, while the products from subsequent managed rotations are taxed according to the costs of management (Penna 1999).

Current incompatibilities between government policies and legal frameworks and forest sustainability might be addressed by involving all stakeholders in decisions affecting forest sustainability. Transparent debate can lead to effective consensus, at least at the local level, particularly when actions beneficial to sustainability are supported by cost-benefit analyses that include the internalisation of historically externalised costs and show that benefits accrue to all (or at least the most powerful) actors. For example, a calculation that it is cheaper to constrain land uses in New York State water catchments than to build water-filtration facilities makes stakeholder consensus less difficult (Bulkan 2009).

Problems arise when there is a lack of win-win options. In such cases, one or more stakeholders may dominate, imposing decisions that are not mutually

acceptable and that favour their own interests over the interests of others or the common good. This may lead disgruntled marginalised stakeholders to seek gain, such as by harvesting timber, when and where they can. The alienation experienced by forest stakeholders is often a key reason for high deforestation and forest degradation rates. Although deforestation would not necessarily cease if all stakeholders had equal decision-making power, it is frequently an outcome of power disparity.

5.2.2 Power, money and sustainability

The effects of competing interests in forests depend on the relative power of the actors: that is, the imbalance of resources between the various actors who vie for use of forests. Asymmetries in wealth, economic status or other forms of power influence how forest lands are used and affect perceptions of sustainability and the prospects for its achievement. Historically, material benefits from forest lands have mainly been limited to profits from timber production or the conversion of forest land to other uses (such as agriculture, industrial development or urbanisation). Those who stand to benefit from deforestation, such as the mining industry, also frequently hold more economic, and thus political, power than those who have more interest in forest sustainability. To the extent that realising private gains may conflict with the achievement of a common good, the greater power of actors seeking private gains may detrimentally affect the maintenance of collective goods.

The consent of government is necessary before forest businesses can legally operate, and in the world system of state sovereignty it is the government of a state that is ultimately responsible for protecting and upholding the common good within its territory. However, the economic power that business can bring to bear in its dealings with government may provide an opportunity to wield political influence, particularly in situations of poverty or great economic disparity. Businesses, of course, seek private gain, in the form of profit. The corporate drive for expansion and profit and the resistance of many businesses to regulation have combined to drive logging-led deforestation in many countries in the Asia-Pacific (Dauvergne 1997, 1998, 2001). In most cases, businesses have more power than local community groups whose interests are often more aligned with preservation of the multitude of forest values.

Sears et al. (2001) argue that although the timber industry has been targeted by the international forest regime, it has proved adept at avoiding pressure to balance the quest for short-term profits with the long-term requirements of SFM. Businesses whose profit-making activities depend less on sustaining forests than on actively destroying them in order to release land for the production of soya, cattle or oil palm or for the extraction of minerals face even fewer controls, especially when their activities are viewed favourably by national political elites (Humphreys 2006).

The power of the market has stirred the creation of certification schemes with the purpose of using the timber market as a source of funding for sustaining non-timber values in timber-producing forests. This has several limitations, however. For example, there is only limited consumer willingness to pay a premium in order to preserve wider forest values, and even then only in certain, primarily developed, countries. Attempts to reform forest management practices in forests used for timber production through market-related instruments such as the voluntary, independent, third-party certification of forest management (see below) promise some success if market access is sustained or enhanced. Schemes for the verification of legal origin and law compliance, such as the recent amendment to the Lacey Act in the US and new illegal timber regulations in the EU (Black 2010; Brack 2007, 2010) are also having an effect on reducing the amount of illegally harvested timber in the international market (Lawson and MacFaul 2010). However, timber-related market instruments have little role in sustaining forests that contain no commercially valuable timber because they cannot address the primary source of degradation and forest loss in many tropical countries – the use of wood for fuel – nor the most significant causes of deforestation elsewhere which come from outside the forest sector, such as the more economically powerful mining sector.

Funding for sustaining forests can also come in the form of direct payments for forest goods and services other than timber. Environmental economists have attempted to develop methodologies to value the externalised costs and benefits of forest goods and services and instruments to internalise them in market mechanisms. It should be noted, however, that the forest value of overwhelmingly greatest interest is of course carbon absorption. The international community's sense of urgency about climate change contrasts with its relative lack of interest in other forest values, such as in providing habitat. This explains, in part, the huge interest in funding the maintenance or enhancement of climate-associated forest values. Interest in forest carbon is also linked to market power, as it is expected that a mandatory market for carbon credits produced through REDD will be created and economically powerful investors are interested in profiting from this. Such a market, however, risks skewing REDD funding towards forest systems that absorb more carbon than those that are valuable for other reasons, to the possible detriment, for example, of high-biodiversity habitats.

Box 5.1 The three pillars of SFM

Balancing the economic, social and environmental functions of forests is difficult. Using financial return as the sole guiding principle of management leads to short-rotation monocultures established at minimum cost. Yet poor outcomes can also result from the neglect of economic and environmental issues. For instance, excessive focus on social aspects may lead to sub-optimal yields and insignificant benefits from collaborative forest management.

Many nations and sub-national jurisdictions are adopting a zoning approach to managing their forest landscapes (e.g. Hunter and Calhoun 1996) that involves protected areas and extensively and intensively managed forests, including planted forests. Such an approach may not achieve the full sustainability of all forest goods and services (including biodiversity) at all locations, but at the landscape level sustainability may be achieved. A landscape approach requires planning and management at large spatial and long temporal scales (Blaser and Thompson 2010).

In Central Africa, for example, distinctions are being made between the economic, social and ecological functions of forests in most forest legislation and regulations, and forest lands are being allocated for specific purposes. The key task is to develop models of SFM that balance the three sustainability pillars at the national level.

Efforts to protect and enhance non-commodified values of forests can come in the form of non-market-driven aid or subventions from multiple sources at both the national and international levels (FAO 2008). Such assistance always depends, at least partly, on the priorities of funders, whether they are governmental, intergovernmental or private. For instance, non-market-based, forest-related funding is available for carbon sequestration and storage (for example, Wittman and Caron 2009 report that an electricity company in a developed country is paying farmers in the tropics for planting and maintaining additional trees); biodiversity protection (for example, conservation donors are paying landowners to set aside or restore areas to create biological corridors; see Dudley et al. 2005); watershed protection (for example, Ortega-Pacheco et al. 2009 report that downstream water users are paying upstream farmers to adopt land uses that limit deforestation, soil erosion and flooding risks); or landscape beauty (for example, tourism operators are paying local communities not to hunt in forest used for tourist wildlife viewing; see Nasi et al. 2002).

In general, however, aid has not been associated with decreased forest loss or degradation. Attempts to reform the socio-economic context through technical aid projects have been largely unsuccessful or of short duration; attempts to redress this by focusing on forest policy have neglected technical aspects (see, for example, Fruhling and Persson 2001; Hardcastle 2005; LTS 2003).

5.3 Enhancing the effectiveness of international forest governance

All of the factors considered above have had some influence on the lack of effectiveness of international forest governance in actually sustaining forests. The challenge is how to balance the three pillars of SFM, given that the pursuit of any one pillar may conflict with the pursuit of one or both of the others. In some areas, such a balance has been pursued at the national scale (Box 5.1).

The operationalisation of SFM has also been attempted through numerous regional initiatives to develop criteria and indicators (C&I) for assessing forest practices on the ground. Attempts to define C&I originated with the ITTO process to develop C&I for the sustainable management of natural tropical forests, which began in 1989. The momentum of sub-global C&I initiatives* accelerated in the acrimonious aftermath of UNCED (see, for example, Box 5.2), when uncertainty existed on whether forest policy would ever again be discussed at the global level (Davenport 2006). These international C&I initiatives have served as models for national or sub-national standards, adapted to varying circumstances and priorities, in many countries (Prabhu et al. 1999), but few have actually been applied systematically or addressed in legal reforms or codes of practice (Lindstadt and Solberg 2010).

Many C&I schemes share similar principles, but there are differences in thematic emphasis reflecting different balances between the social/cultural, economic and environmental pillars of sustainable development. They also exhibit diversity in their content and structure (Pokorny and Adams 2003), development and implementation (Mrosek et al. 2006), and monitoring and reporting requirements (Gough et al. forthcoming; Hickey and Innes 2006).

The various C&I processes were intended to provide a common understanding of SFM for specific

* Prominent processes include the Helsinki (MCPFE) Process for development of pan-European C&I, the Montreal Process on C&I for temperate and boreal forests, the Tarapoto Process for Amazonian forests, and the Lepaterique Process for Central America.

Box 5.2 The ATO/ITTO principles, criteria and indicators

In 1995, the African Timber Organization (ATO) started a process to develop regional principles, criteria and indicators (PCI), based on the ITTO C&I. Supported by the international community, in particular the European Union, France and the Center for International Forestry Research (CIFOR), the ATO produced a set of PCI applicable to African natural tropical forest in 2000. In 2001 the ATO and ITTO engaged in an initiative to harmonise their respective PCIs. The harmonised set was published in 2003.

The ATO/ITTO PCI for the Sustainable Management of African Natural Tropical Forests consists of four principles. Principle 1 provides a framework for evaluating and monitoring the forest policy adopted by each ATO/ITTO member state. It focuses on measures taken by governments within their legal and institutional mandates to favour SFM.

Principles 2–4 allow for the monitoring, evaluation and planning of forest management at the forest management unit (FMU) level. They address the sustainable supply of required goods and services (Principle 2), the maintenance of the main ecological forest functions (Principle 3), and the contribution of forest management to the economic and social well-being of concession workers and local populations (Principle 4).

forest types and to provide a common framework for describing, assessing and evaluating the progress of countries towards SFM (Grayson and Maynard 1997). Efforts have been made to apply indicators developed at the regional and national scales to the smaller scale of the forest management unit (FMU) (Prabhu et al. 1999). Many analysts argue that C&I processes have been a success because they have led to the re-evaluation of forest management and to progress in assessing and communicating successes and failures in management (Prabhu et al. 2001).

There has also been criticism, however, of 'SFM as C&I', part of which comes from those who believe that C&I have been created by top-down approaches of questionable relevance to local or decentralised forest management (e.g. Hajjar et al. 2009; Karjala and Dewhurst 2003; and see Box 5.3). Others contend that indicators have been selected on the basis of political expediency, data availability and ease of measurement rather than informational content (Brang et al. 2002) or need, and that forest practitioners have avoided using indicators that are expensive to monitor (Gough et al. forthcoming). Due to the complexities confronting efforts to define SFM (Gough et al. 2008), C&I processes can quickly become mired in enormous 'laundry lists' of possible indicators for a broad spectrum of values (Gustavson et al. 1999). They do not give guidance on balancing conflicting objectives in forest management, nor on the "causal link between international policy recommendations and national situation" (Lindstad and Solberg 2010:188).

5.3.1 SFM through certification

Forest certification systems have developed alongside the more general C&I processes for operationalising SFM at the FMU level. Most certification is done under one of two global schemes, the Forest Stewardship Council (FSC) and the Programme for Endorsement of Forest Certification (PEFC). The PEFC functions as a way of directly putting the various intergovernmental C&I into effect at the FMU level, while the FSC principles, criteria and indicators (PCI) move even further from the maximum-yield timber production paradigm, particularly in terms of stakeholder participation (FSC 2010).

These certification schemes differ from C&I processes in being mostly private or non-state-driven and have increasing influence in the validation of SFM on the ground. A number of government-led certification schemes have also been put in place. Interestingly, rather than these usurping or watering down the certification requirements of private schemes, in several countries the opposite has been true. For example, the United Kingdom Forest Standard is fully compatible with FSC standards (see Box 5.4).

Nevertheless, certification schemes share some of the problematic aspects of C&I processes. What is measured is an issue: should indicators measure the appropriateness of 'processes', or the degree of achievement of appropriate 'outcomes', or both? For example, since 1994 Cameroon has made improvements in its forestry laws, one measure of this being the increasing number of approved management plans in effect. However, a study by Cerutti et al. (2008) finds that the government has not succeeded in implementing effective minimum sustainability safeguards and that, through a combination of a legal loophole and poor oversight, almost 70 percent of timber production in 2006 was conducted as if no improved management rules were in place.

A deeper issue is the possibility that the processes of developing arrangements for monitoring may undermine the trust relationships that must exist in order for the practices being monitored to function appropriately (McDermott forthcoming). Demand for legalistic approaches is frequently driven by distrust based on perceptions of value differences and

Box 5.3 C&I processes vs. community forest management

Difficulties can arise in applying national or international-level C&I to forest operations of different scales, tenure systems and management intensities, even within the same country or region. This is especially so for the increasing area of forest land coming under indigenous and other community control (White and Martin 2002). C&I created through top-down approaches tend to favour industrial forestry; most were created as part of a push for more sustainable industrial practices and reflect more concern over the impacts of forest operations on local communities than the needs of community-run forestry operations (Hajjar et al. 2009). Their usefulness to communities may therefore be questioned.

Internationally, consideration is being given to small and low intensity managed forests (SLIMFs) through the Forest Stewardship Council, but this is mostly limited to calls for less monitoring to reduce the costs of certification (see below) and for the adaptation of national standards to low management intensity situations. The unique characteristics of community-managed forest operations and traditional and indigenous management practices are often not reflected in national and regional C&I, while such top-down templates are themselves criticised for not generating information specific enough to address local issues (Karjala and Dewhurst 2003).

The Canadian approach to participation of Aboriginal peoples in C&I has been criticised on the grounds that Aboriginal issues are unique and require their own criterion (National Aboriginal Forestry Association 1995). Hajjar et al. (2009), however, demonstrate that C&I cannot adequately address the unique worldview of traditional and Aboriginal forest operations. The high regard that traditional and Aboriginal people have for local, historical and qualitative knowledge and for relationships among people and between humans and nature, and their spatial integration of land, water and forest management, make it difficult to silo and categorise their values as they are presented in existing C&I.

Some work has been done to develop C&I for local-level or joint forest management initiatives (Pokharel and Suvedi 2007; Sherry et al. 2005); less has been done to allow for the unique management structure of community-owned or -managed forest operations (Pokharel and Suvedi 2007). Hajjar et al. (2009) conclude that while C&I are useful for defining and monitoring management practices, they must be updated to reflect growing global recognition of the importance of community-based forest management. Gough et al. (forthcoming), meanwhile, caution that the highly contextualised nature of communitarian discourses makes it difficult to find commonalities between local definitions of sustainability in order to build SFM policy up to the national or sub-national level.

Box 5.4 LEI–FSC harmonisation

When the Indonesian Ecolabelling Institute (LEI) was created as early as 1995 it was criticised by NGOs who feared that FSC standards would be watered down in order to pay lip-service to certification for marketing purposes. The LEI and the FSC were indeed different initially (Elliott 2000), the former having been established with strong support from the Indonesian government and business groups, who set visibly more flexible standards than those of the FSC. However, facilitated by changes in the Indonesian polity which enabled the separation of LEI from government influence (Maryudi 2005), the two schemes signed an agreement in 2001 to launch a unique programme with jointly agreed standards for certifying Indonesia's natural forests (van Assen 2005). Through this joint programme the LEI attained exposure to international timber markets, while the FSC attained wider adoption of its certification standards by Indonesian forest companies. The collaboration facilitated the harmonisation of the certification standards of the two bodies (Maryudi 2005).

Although it successfully certified an Indonesian forest company (van Assen 2005), the joint programme was terminated in 2005 (Maryudi 2009). While LEI had started to gain international recognition in core markets (e.g. the United Kingdom – Stringer 2006), its subordination to the FSC in the partnership was the subject of concern (MPA-LEI 2009). Meanwhile, the fact that the jointly certified company continued to receive complaints against its certification dampened the interest of other forest companies in engaging in the programme (Maryudi 2005; Valentinus and Counsell 2002), which did not benefit the FSC.

Despite the ending of the collaboration, LEI has maintained the improved standards brought about by its partnership with the FSC. In fact, several independent assessments (e.g. Hinrichs and Prasetyo 2007; Maryudi 2009) have noted that the LEI is still on par with the FSC in terms of meeting requirements for credible forest management and chain of custody. As of mid 2010, discussions between FSC and LEI are continuing.

a resultant desire to control distrusted actors. Such approaches are likely to be counter-productive by decreasing opportunities for the voluntary cooperation and trust-building which are necessary if actors with perceived value differences are to "create new arenas of shared meaning" (Sitkin and Roth 1993, cited in McDermott forthcoming: 5). Ultimately, this process "leads to the desire for control and coercion among all conflicting parties" (McDermott forthcoming:7) and is reduced to a question of power – whose judgments carry more weight?

Finally, in the absence of broader enforceable land-use policies, no scheme or process that focuses on forest management – and even less those that focus only on forests producing for the international timber market – can address the causes of deforestation that originate outside the forest sector, particularly forest conversion for agriculture or industrial or urban development, or forest destruction caused by mining.

5.3.2 Achieving SFM

Ascertaining achievement of SFM depends on the ability to measure progress on all three pillars of sustainability. There are obstacles to creating viable SFM measurement efforts, however, not least because of the problems that exist in attempting to define SFM at a global level.

The robustness of the environmental pillar of SFM is determined by the question of what practices are necessary to ensure the survival of a particular ecosystem. The problem is that 'one size' does not 'fit all'; the appropriateness of specific approaches to achieving SFM depends on forest type. Tropical forests are much more complex and fragile than European temperate forests and also vary in their vulnerability to loss or degradation due human activity (Sands 2005; Whitmore 1998).

Forests differ widely in their capacity to produce desirable products and services, their accessibility to humans, and, from an environmental standpoint, the natural resilience to disturbance of the ecosystem of which they form a part. Forests are dynamic and have evolved in response to environmental factors such as climate fluctuations, fire, earthquakes, floods and pests; in broad terms, the natural resilience of a forest ecosystem correlates with the level of natural disturbance to which it is subject. A high frequency of disturbances caused by fire, floods, hurricanes or earthquakes leads to highly resilient forests – such as the savannas of East Africa (Robertson 1984) and the forests of the Yucatan Peninsula. A low frequency of disturbance can produce stable ecosystems, such as the wet forests of Central and West Africa, but these may be less resilient to abrupt change (Whitmore 1998).

Variation in forest resilience also implies differences in their vulnerability to the effects of climate change. Definitions of SFM need to be adjusted according to forest type but also to accommodate environmental changes. Managers of some types of forest will have to adapt their practices according to changes caused by climate-induced shifts in ecosystem dynamics (Innes et al. 2009).

With regard to the economic and social pillars (the 'human' pillars) of sustainability, it has been amply shown that where the sustainability of forests conflicts with, or is perceived to conflict with, other human needs, forest sustainability will not be prioritised.

Just as there are differences in forest types that are currently not addressed in attempts to define and operationalise SFM, there are also differences in human social and economic needs (see Box 5.5). 'Forested land' and 'forest' are frequently regarded as separate resources: in cases of hunger for land, forest is seen simply as an obstacle to cultivation. Especially in densely populated countries, forests will not be sustained unless they provide for human needs to a greater extent than would alternative uses of the land (Schenk et al. 2007).

Frequently, however, the economic and social pillars of sustainability are pursued through measures that may have unintended or even perverse effects, or are neglected altogether. For instance, human survival requires technical understanding of forest systems as well as what is required for human survival. Many efforts and projects to implement SFM have wasted time and resources, and many attempts to regenerate or restore forests have failed, due to a lack of technical knowledge (Davenport 2009).

For example, global forest governance entities such as the UNFF and the ITTO encourage the harvesting of NTFPs as a livelihood alternative to timber harvesting (or forest destruction for agriculture or mining). However, NTFPs have not generally proven to be sufficiently remunerative to obviate the need to exploit timber resources as well (Whitmore 1998). Nor does the harvesting of NTFPs rather than timber ensure forest sustainability; NTFPs can also be overharvested, although little attention has been paid to this phenomenon to date (Ninon 2007; Wong et al. 2001).

'Full stakeholder participation' in resource management decisions (see Costanza et al. 1997) is also linked to addressing the survival needs of forest-dwelling people. Yet participation does not *necessarily* imply forest sustainability because it cannot be assumed that those who value standing forests most will hold sway in a truly participatory decision-making process. In addition, participation carries heavy time costs for individuals and communities who must work to survive, especially as

Box 5.5 SFM in Rwanda and Gabon

Rwanda, the most densely settled country in Africa (384/km²) has less than 10% of its land area under natural forest. Forest produce for the highly rural (80%) population comes mainly from exotic trees planted in and around farms. G*ross domestic product* (GDP) per capita (PPP) is USD 738. Following severe forest loss, the situation has now stabilised with an active tree planting programme and a system setting aside the remaining natural forest in protected areas.

Gabon is one of the least heavily settled (5/km²), has only 16% rural population and a GDP per capita (PPP) of USD 14 208. Forest cover is 84% and the loss rate is negligible and has been so for more than 20 years.

Both countries aim to secure SFM but the differences in forest type, dependency and use mean that while the principles may be similar, the application will be very different. The balance of interests, the relative importance of production and service values and the whole system of management will all be at opposite ends of the spectrum of what constitutes sustainability; SFM must be interpreted to take account of these differences while maintaining its wider aims (FAO 2009; Hardcastle forthcoming).

rewards for participating may be neither immediate nor material. There are also costs in providing information at an appropriate level to ensure that FPIC requirements are actually met (LTS 2003). This is not to say that some interests should not have a voice on resource management decisions – although building democratic institutions requires building trust in government to represent and be accountable to the interests of communities (Jordan 2001). Efforts to rely on direct participation as a 'default' in all cases may have the perverse effect of undermining efforts toward political development more generally (Dahl 1989; Hardcastle et al. 2010a).

The most significant potential influence on forest sustainability is the expected infusion of resources at the intergovernmental level in relation to the REDD mechanism currently under discussion within the UNFCCC framework. If REDD monies increase the likelihood that leaving forests standing will be favoured over alternative land uses then they have the potential to increase forest sustainability. Yet safeguards remain to be agreed and enforced for ensuring that other forest benefits and values, including social values, are not swept aside in the pursuit of greenhouse gas reductions. Given that some key REDD negotiators are climate scientists rather than foresters or land-use planners, there is a risk that forest values other than carbon sequestration will be shortchanged.*

Achieving truly sustainable forest management requires recognition of different forest contexts. Yet context is rarely noted in discussions and proposals within international governance bodies. Global forest governance entities can improve their effectiveness on the ground if the huge diversity of forest ecosystems is acknowledged and addressed at the highest levels, with appreciation of specific requirements for sustaining forests of different types in various ecological and human contexts. For example, the environmental pillar of sustainability suggests that forests of most value for biodiversity should be conserved to secure these biodiversity values. This would also meet the requirements of the economic pillar if the economic value of not logging biodiversity-rich, intact natural forest exceeded the value obtained from logging them (Davenport 2009). Giving biodiversity the highest priority in natural forests might also meet the requirements of the social pillar if it is politically more acceptable to a wide cross-section of society than alternatives.

There have been recent initiatives to develop context-specific C&I such as ITTO's C&I, noted earlier. Perusal of such C&I processes shows, however, that they have not fully tackled all context-specific issues, such as the relative level of subsistence use, the regeneration ecology of the forest type, the proportion of species producing timber, or the relative importance of NTFPs. Meanwhile, reporting burdens related to forests are increasing. The international forest governance processes related to forests encompasses numerous schemes for assessing not only progress toward SFM, as discussed above, but also other more specific aspects of sustainability such as the legality of harvested and traded timber and the state of biodiversity and carbon sources and sinks. Assessments are required at both national and subnational levels. However, the increasing burden of reporting is inadequately addressed in capacity-building and technical and financial assistance at the intergovernmental level.

On the other hand, it should be noted that while the burden of reporting related to the forest sector is huge, products that originate from mining (for example) carry no such reporting obligations, nor is there evidence at the intergovernmental level of pressure for them to do so. Yet, in some contexts, mining is a major cause of forest loss. It is well

* Interview with a national head of delegation to the UN Climate Conference, Bonn, 9 June 2010.

known that international attention on forest practices contrasts sharply with a relative lack of concern over the environmental and social impacts of mining (see, for example, ITTO 2003). The lack of international oversight or control of mining and the relative ineffectiveness of NGOs and indigenous peoples in exposing the impacts of mining have been linked to the fact that, in many countries, the economic power of the mining industry is far greater than that of the forest sector (Hardcastle et al. 2010b).

Given limitations on resources, there is new interest among some governments in ideas for reducing the reporting burden with regard to forests for those with least capacity and resources, most commonly countries where progress towards SFM has been least and which often have the most ecologically complex forests. Ideas being considered include:

- The identification of a minimum number of outcome-based indicators, such as a set of key biodiversity indicators or locally relevant indicators of human well-being.
- Risk-based assessments using a minimum number of critical indicators – failure to meet standards would trigger a more detailed assessment of subsidiary indicators to identify where deficiencies lie.

5.4 Conclusions

Global forest governance has not managed to halt forest loss or degradation. It is not even clear that international forest institutions can claim any credit for the fact that rates of deforestation, although "still alarmingly high" (FAO 2010), have slowed. Continuing controversies over what it means to 'sustain' forests make it even more difficult to assess the effectiveness of international forest governance arrangements. Nevertheless, international efforts continue to be needed to preserve the multiple forest benefits that accrue at the global level.

Some key facts about forest users are rarely acknowledged in discussions of governance arrangements: Zero-sum competition between users with very different interests creates winners and losers whenever power shifts. Zero-sum competition characterised by power imbalances makes it very difficult, if not impossible, for stakeholder-led processes and decentralised governance arrangements to achieve sustainable outcomes that provide equitable benefits to all participants. Moreover, since so many of the drivers of forest loss and degradation come from outside the forest sector, governance that fails to account for these drivers and the interests that create them seem especially likely to be ineffective.

Concepts of forest sustainability differ widely, often reflecting conflicts of interests and power asymmetries amongst forest users. Since everyone wants to appear to be acting 'sustainably', concepts of sustainability are developed accordingly. However, the intergovernmental instruments whose focus is forests themselves overwhelmingly support the concept of SFM as a key tool for sustaining forests. Specific ideas for improving the utility of SFM as a tool for sustaining forests are currently under consideration in some national and intergovernmental contexts, including the refinement of indicators of progress in varying contexts and measures to support those who are responsible for both SFM and its assessment on the ground.

Perhaps the greatest challenge that SFM currently faces is the development of forest-related programmes with potentially competing goals. With burgeoning global interest in sustaining forests in relation to climate-change mitigation and adaptation, there is an increased need to refine SFM at the intergovernmental level into a more effective tool for sustaining forests and all forest values.

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6 Overcoming the challenges to integration: embracing complexity in forest policy design through multi-level governance

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Abstract: Forest policy at the international level suffers from both difficulties in securing agreement on policy goals as well as a lack of implementation on the ground. Attempts to respond to these problems through repeated efforts at top-down regime redesign have so far had little success. Even though many continue to argue that creation of a new treaty-based international regime might be an optimal solution, it remains an unrealistic option given the highly fragmented institutional architecture of the existing mix of international agreements, the multiple interests of public and private actors, and the complex policy problems that need to be addressed in the sector. Rather than persist in advocating exclusively for the creation of a treaty-based top-down regime, this chapter argues that reformers should, rather, embrace complexity and design incremental additions or 'patches' to the existing mix of regime elements which can help overcome their problems of fragmentation and poor policy coordination. Some regional organisations have successfully applied new governance instruments to existing mixes in such a fashion and lessons can be drawn from those experiences. Examples from the European Union and ASEAN in particular illustrate the potential of this decentralized approach to global forest policy design.

Keywords: International governance, governance regimes, international forest regimes, regime complexes, fragmentation, subsidiarity.

6.1 Introduction

International forest governance arrangements are not based on a single instrument that places legally binding obligations on signatory states. Rather, as shown in Chapter 2, the existing international regime is composed of multiple international agreements, some with an explicit focus on forests and some that address forest-related issues indirectly. As argued in Chapter 3, it is a heterogeneous mix of soft and hard law and is more properly termed a 'regime complex' than a 'regime', per se.

Several important characteristics of these existing international governance arrangements can be identified. First, the existing mix of elements has developed incrementally over a number of years and, again as discussed in Chapter 3, it includes elements that were designed to address a wide variety of policy goals. Second, as shown in Chapter 5, each of the elements is supported by various political groupings, making them resistant to redesign and reorientation towards new goals (McDermott et al. 2007; Pülzl 2009; Tarasofsky 1999). Third, what currently exists in terms of an international forest regime is embedded in the larger context of global forest governance, which includes all the global environmental and social governance arrangements discussed in chapters 2 and 3. Fourth, neither the international regime itself nor the larger governance framework can be thought of as 'designed'; they are better described as broadly self-organising and as the unintended outcomes of a variety of separate initiatives undertaken over several

decades. And, fifth, chapters 2, 3 and 4 have shown that an idea around which the various policy elements could be recombined into an integrated, intentional design remains elusive. Neither ideas generated within the more narrowly defined understanding of the international forest regime, such as sustainable forest management (SFM), nor those generated by attempts to incorporate forest-related policy elements into a larger governance assemblage dealing with issues such as biodiversity conservation or climate-change mitigation, are able to function as a normative foundation for the (re)design of international forest policymaking.

Within this context, this chapter presents a range of alternatives which aim to balance the integration and fragmentation of key policy elements in the development of a new global forest governance architecture which transcends an emphasis on international treaty-making and top-down regime formation. First we focus conceptually on various dimensions of integration to generate criteria for assessing the potential effectiveness of a regime complex (Keohane and Victor 2010; Underdal 2004). Next, we identify instruments that provide alternative models to that of top-down international policy development. Third, we outline options for achieving a more effective mix of existing and new components based on principles of new governance that seek not to eliminate but rather to benefit from the complexity of forest policy.

Experience suggests that the best approach is to focus on multi-level governance and the tools and instruments required to put an effective multi-level architecture in place. Much can be learned in this area from the experiences of the Asian countries in regional-level policymaking, while the experiences of the European Union (EU) with the open method of coordination (OMC) and its principle of subsidiarity in institutional policy design are also very instructive. These experiences, principles and elements are discussed towards the end of the chapter.

6.2 Integrating complex policy mixes: coherence, consistency and congruence

Faced with coordination problems caused by global governance complexity and fragmentation, policy integration through top-down treaty-based international regime formation is one possible option for resolving gaps and contradictions between institutions, actors and existing regime elements. However, there are other, less well studied, design possibilities as well.

Briassoulis (2005:2) uses a market analogy to describe the dilemma policymakers face in many complex areas of contemporary social and political life:

"The policy market faces the following situation. On the demand side, contemporary problems are complex and inter-related, defying treatment by means either of narrow, sectoral policies or of all-encompassing, super-policies. On the supply side, numerous policies, related to particular aspects of one of more of these problems, exist."

This, she notes, means it is often "unnecessary to devise new policies each time a problem arises." Policymakers rather often can achieve efficiency gains through the integration of existing policies; reconciling overlaps and duplication between policy elements. In so doing they seek consistency and coherency in the creation of 'new' governance strategies that address interrelated policy problems using modifications to existing policy components.

While most of the academic work on policy integration has been done at the domestic level, international policymaking faces many similar situations in which complex problems must be addressed amid a wide variety of existing institutions and instruments (Biermann et al. 2008, 2009a, 2009b; Dimitrov 2006; Keohane and Victor 2010). Like its domestic counterpart, international governance is a complex arrangement of multiple goals and means that, in many cases, has developed incrementally over many years.

As Keohane and Victor (2010) note, international governance arrangements vary along a number of lines. These include:

- determinacy – the extent to which the policy outputs of the regime complex are unambiguous and convey a clear message to participants;
- effectiveness – the extent to which the regime complex can change its legitimacy and encourage compliance with its rules and norms; and
- sustainability – the ability of the regime complex to survive changes in circumstances and conditions, continue to provide its members with benefits, and encourage both new and established actors to engage with the regime complex to address relevant problems.

Integration involves the alteration of specific elements of an existing policy mix – the goals, objectives and calibrations of existing policy tools – in order to produce a new mix, with the aim of avoiding the counterproductive or sub-optimal policy outcomes associated with the old arrangement and enhancing its determinacy, effectiveness and sustainability.

Overcoming the contextual 'stickiness' of earlier regime elements is critical to the success of this kind of policy integration reform effort (Keysar 2005; Saglie et al. 2006) and is a major problem with respect to global forest governance arrangements. Pre-

Table 6.1 Types of international regime complexes

	Synergistic	Cooperative	Conflictive
Institutions	One core institution; others integrated	Multiple core institutions; others loosely integrated	Multiple, largely unrelated institutions
Norms	Core norms are integrated	Core norms do not conflict	Core norms conflict
Actors	All relevant actors support the core institution	Some actors are outside core institutions but supportive	Major actors support different institutions

Source: Adapted from Biermann et al. (2008, 2009a, 2009b).

vious chapters have shown that current international forest governance is not the kind of tightly integrated, comprehensive arrangement that early international treaty proponents, and early regime theorists in general, considered desirable. Instead, it exhibits the features of a fragmented governance architecture: it is a patchwork of international institutions that are different in their character (organisations and implicit and explicit norms and goals), constituencies (public and private), spatial scope (from bilateral to global), and subject matter (from specific policy fields to universal concerns) (Biermann et al. 2009b).

6.3 International forest policy as a fragmented regime complex

In evaluating governance arrangements, Keohane and Victor (2010) focus on two key aspects of their structure and behaviour:

- their 'epistemic' quality – that is, their ability to perform in accordance with, and to promote, technical and scientific knowledge of the cause-and-effect relationships in the field in question; and
- their accountability – the mechanisms through which individual actors are able to express their views and participate in governance activities as well as the extent to which they are held accountable for their actions.

As Howlett and Rayner (2006a) note, both these aspects of regime structure and behaviour focus attention on the congruence of a regime's component parts – that is, the extent to which the policy elements comprising a regime are coherent and consistent. Policy goals can be considered *coherent* if they are logically related to the same overall policy aims and objectives and can be achieved simultaneously without significant trade-offs. They are *incoherent* if they are contradictory (e.g. simultaneously promoting in situ biodiversity conservation and the conversion of natural forests to other uses) such that the implementation of the policy can lead to the attainment of only some or none of its goals. Policy tools are *consistent* when they work together to support a policy goal. They are *inconsistent* when they work against each other and are counter-productive – such as macro-economic policies that increase the value of agricultural land relative to forest land and regulatory policies that seek to prevent the conversion of forest to agricultural land. *Congruence* is achieved when a consistent instrument mix serves a coherent set of policy goals.

The extent of consistency and coherency must be evaluated empirically on a case-by-case basis (Underdal 1980). However, congruence is the main goal of policy integration in a fragmented regime. Exactly how it can be attained, though, depends on the nature of the fragmentation found in a particular sector. Here Biermann et al. (2009a, 2009b) have argued that it is possible to identify several common types of international governance arrangements by arranging regime complexes along a continuum from integrated to fragmented. As a further simplification, Biermann and his colleagues present three typical architectural 'styles' at key points on this continuum: synergistic, cooperative and conflictive (Table 6.1).

In this view, complexes come about as the result of the unintended consequences of long-term processes such as layering and fragmentation and may have positive as well as negative consequences. Unmanaged conflict may result in governance failure or the movement of fragmented arrangements away from a synergistic style towards an openly conflictive one (Dimitrov 2006, Dimitrov et al. 2007).

That is, most international governance arrangements exhibit some degree of fragmentation (e.g. Alter and Meunier 2006; Dimitrov et al. 2007; Keohane and Victor 2010) and, typically, the challenge is not so much how to remove it, but rather how it can be successfully managed. As noted in Chapter 1, although global forest governance has sometimes been described as a 'non-regime' (Dimitrov 2002, Dmitrov et al. 2007), the current framework is more

Table 6.2 Key conclusions of previous assessments of international forest governance: common themes

Tarasofsky (1999)	Chaytor (2001)	Dimitrov (2005)	Hoogeveen and Verkooijen (2010)
Lack of coordination at all levels	Increased coordination needed	Absence of instruments for policy coordination	Legitimate multiple arenas that create management problems
Lack of effective financing and implementation	Lack of financial resources for implementation	Complex cross-sectoral issues	Fragmentation that impedes impedes effectiveness
Lack of clear rules and measurable standards	Increasing fragmentation	No substantive policy content	Unhelpful fixation on creating a legal instrument
No consensus on a 'bottom up' approach	No consensus on the need for regulatory instrument		Non-state actors not fully engaged
	Interdependence of stakeholders not fully recognised		
Central Problem Identified			
Gaps in the regime more serious than overlaps	Significant coordination problems	Absence of reliable information on causation	Lack of effective leadership

accurately described as a "regime complex" – a set of specialised sectoral and issue-based regimes and other governance arrangements more or less loosely linked together, sometimes mutually reinforcing and sometimes overlapping and conflicting (Keohane and Victor 2010).

Previous assessments of international forest governance, summarised in Table 6.2, have detailed the drawbacks of such a fragmented governance architecture, and often blame this situation on the absence of forest-focused hard law at the international level.

However, analyses of other kinds of international regimes, especially those studies dealing with regime fragmentation and the interplay between regimes, suggest that the 'failure' of a regime to develop hard law may simply reflect the lack of need for such efforts at the international level and the functional need to deal with an issue at a regional, national or local level instead. Rather than signal a failure of initiative at the level of political and policy elites at a global level, in such circumstances fragmentation would not necessarily be solved by a forest convention; in fact, adding a new layer of complexity to such a regime complex might make matters worse.

In the forest policy case, there is a large set of issues and linkages that are of varying concern to different actors. International forest governance, in particular, is distinguished by the fact that many of its component instruments and institutions are only 'forest-related' rather than exclusively 'forest-focused'. Linkages between issues are highly complex and often depend on the specific contexts in which national governments operate. For example, in the international trade in forest products – which gave rise to the first legal instrument in the international forest regime complex, the International Tropical Timber Agreement – the issue is clearly of concern to both producer and importer countries but affects different countries in different ways. Trade is often linked to the problem of illegal logging, which, in turn, is linked to questions of fairness in international trade and the potential for a 'race to the bottom' in forest management standards. Illegal logging can also be linked to problems in the countries where it takes place, such as its effects on revenue generation and its capacity to undermine governance by promoting corruption. Other linkages relate to the effects of illegal logging on development or the conservation of biodiversity, which themselves are linked by the importance of forest products and functioning ecosystems to forest-dependent communities, the size and significance of which vary by jurisdiction. Efforts are often made to make this linkage between development and conservation as visible as possible, stressing the economic costs of biodiversity loss. In practice, however, the costs and benefits of forest use are shared unequally.

Again, such problems affect different countries in different ways, making it difficult to devise a 'one size fits all' binding international convention on the subject. Even the legal timber trade creates patterns of public and private gain that are often unrelated to the needs of development, especially in forest-dependent communities (Hoogeveen and Verkooijen 2010). A variety of potential linkages can lead in a

number of directions, for example towards the impact of policy decisions in other sectors on the comparative value of land uses and the consequent pressure for deforestation or degradation.

As a result of such complex linkages, international forest governance has developed over time into a weak and fragmented regime with a conflictive rather than cooperative architecture (Braatz 2003; Humphreys 1996; Pülzl 2009; Tarasofksy 1995, 1999). The achievement of more cooperative relationships among the broad range of actors at play in this conflictive environment is impeded by, for example:

- resistance to the idea that forest issues are global rather than local (Betsill et al. 2007; Dimitrov 2005);
- continuing opposition to the norms of SFM by many influential NGOs (Humphreys 2001, 2004); and
- the parallel development of related treaty and non-treaty regimes such as the Convention on Biological Diversity (CBD) and the climate change regime (Gehring and Oberthuer 2009).

At the very least, these factors, are formidable obstacles to positive regime interactions in the forestry case (Ivanova 2005, 2007). Nevertheless, in terms of international regime architectures none is especially unusual, and the forest governance regime complex represents difficult but not unique challenges to global governance design (Florini and Sovacool 2009; Sending and Neumann 2006).

6.4 Difficulties in coordinating national-level initiatives: lessons from the NFP experience

In many cases, the remedy for the fragmentation of a global governance arrangement may be not so much continuing top-down treaty-making efforts as building more regime coherence through 'bottom-up' coordination efforts at the national and regional levels. Perhaps the most significant such attempt to build on national coordination in the forest sector has been the promotion of national forest programmes (NFPs) in regional and international agreements. Unfortunately, however, the record of these efforts at the national level in forest policy is mixed and efforts to use national initiatives as the basis for global coordination have been correspondingly disappointing.

As discussed in earlier chapters, the NFP idea emerged in the early 1990s when the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests produced a body of soft law – the 'proposals for action' – that forms part of the legal framework of the existing international forest regime complex. Their proposals for action at the national level helped to firmly establish the concept of NFPs in international forest policy discourse. As noted in Chapter 3, the Non-legally Binding Instrument on All Kinds of Forests (NLBI) subsequently put particular emphasis on NFPs as a means of realising its four global goals. The Ministerial Conference on the Protection of Forests in Europe (MCPFE) was an early adopter of the NFP concept, in part as a way of promoting convergence between forest planning and practice in both EU and non-EU countries. The Convergence Plan agreed to by the heads of state of Central African countries in 2005 when they signed the Yaoundé Declaration was intended in part to serve as a basis for the formulation of national forest programmes (Koyo and Foteu 2006). Since 2002, FAO has administered an NFP facility that helps finance the development of NFPs in developing countries.

Early evaluations of NFPs in Europe revealed a set of impeding and supportive factors for the success of NFPs, many of which lay outside the control of national forest authorities and underlined the importance of cross-sectoral policy coordination even at this level. In Europe, the implementation of NFPs encountered significant problems in the capacity and political will to improve forest policy processes. An early assessment of European NFPs showed that half lacked a budget, concrete objectives and long-term commitments and that evaluation and monitoring were weakly institutionalised (Zimmerman and Mauderli 2002) (see also Table 6.3 below). The possibility that NFPs could be used in ways that simply reinforced the status quo at the national level or provided a merely symbolic response to regional and international obligations was noted early on in their development (Papageorgiou et al. 2005; Howlett and Rayner 2006a and 2006b). Subsequent research has suggested that the situation is even worse than originally suggested (Winkel and Sotirov 2010). Two criticisms, in particular, recur in this literature. The first is that the participatory requirements of an NFP are typically used to co-opt opponents of the status quo. The other is that NFPs often fail to be translated into action on the ground.

As noted in Chapter 3, the main reason for the disappointing performance of NFPs as instruments of coordination is clear. NFPs are 'new-governance' arrangements adopted as part of a common response by national governments to the need for change in a situation where international hard law initiatives were blocked. However, decades of piecemeal adjustment, layering and drift at the national level also had resulted in a patchwork of overlapping and ambiguous national regulations and perverse incentives in the forest sector. New-governance arrangements in the sector such as NFPs sought to alter incentive structures in order to motivate private actors to pursue public purposes without close regulatory supervi-

Table 6.3 Supportive and impeding factors related to NFP formulation and implementation

	Supportive factors that directly affect forest use	Impeding factors that may indirectly affect forest use
Land tenure	Land tenure patterns in forests generate capable but not veto-capable industrial organizations	Land tenure in areas surrounding forests; e.g. the agriculture–forestry interface, urban areas
Legal regulations	Legal regulations designed exclusively or principally for forests allow for effective control of industrial activities	Legal regulations on national sustainable development policy and agriculture; other legal arrangements that may affect forest use
Financial incentives	Grants and tax breaks directed at forest owners and users encourage compliance with government aims at a reasonable cost	The broader national tax/revenue structure; the national budget and financial plans
Political culture	A culture of cooperation exists between national and regional forest authorities	The national political culture
Institutional aspects	The existence of high capacity institutions with an exclusive or predominantly forest mandate	Institutions with other mandates, such as those that include an indirect forest-related mandate, and those with no forest-related mandate but which may affect forest use

Source: Humphreys (2004).

sion. The various forms of self-regulation, coupled with the threat of closer supervision for persistent laggards contained in many NFPs are examples of this approach (Howlett and Rayner 2006b). But fine-tuning the policy instruments needed to make new-governance arrangements work has been unexpectedly challenging. In the case of NFPs, for example, if organisational weaknesses in the private sector prevent collective action, the state must have the capacity and willingness to act as a political entrepreneur in order to promote a substantive NFP and coordinate state and private sector behaviour, attributes which are commonly lacking.

Significant investments have been made in NFPs: they are providing, however imperfectly, the basis for the development of national forest goals and priorities. However, confidence that NFPs will be a key instrument, exclusiv of international support and in their own right, for realising the goals of the NLBI is misplaced; on their own, NFPs tend to repeat the pattern of existing forest policymaking at the national level. A consensus is emerging, however, that NFPs and similar arrangements at the regional level may have a role to play in a more multi-level governance architecture that can help re-orient both national and international forest policy and policymaking.

6.5 The recent proliferation of regional agreements

Although less well studied in their scope and impact, recent efforts at the national and global levels to improve forests and forest practices have been matched by regional-level processes. Regional-level forest-related processes have tended to be more flexible than global-level arrangements in their use of hard-law and new-governance instruments and also show greater integration with regional governance structures, and several examples of the successful application of new-governance instruments exist at this scale.

Appendix 6.1 sets out the existing legally binding regional forest processes and related agreements, and Appendix 6.2 lists those that are non-legally binding. These sets of regional multi-level agreements constitute a key building block in a strategy of diversifying and widening the policy instrument toolbox in order to embrace the complexity of forestry problems and overcome the deadlock that the international regime-building pathway has encountered.

The number and size of regional organisations have grown as international and national efforts have stalled, notably in the area of climate change but also

in international trade. Following the regime complex-building logic set out above (Bierman et al. 2009a), their proliferation raises additional challenges for policy integration, given the possibility of a large number of possibly counter-productive initiatives in different regional agreements and organisations (Strand 2004). Not all regional organisations have always delivered better results than international agreements; nor have they done better than individual states in implementing the components of regional agreements. But some successes are apparent.

As an example of the challenge posed by the proliferation of regional agreements and organisations, consider the Central African Forest Commission (COMIFAC). This regional organisation was created to coordinate and harmonise subregional policy and legislation affecting the conservation and sustainable management of the forests of Central Africa on the basis of well-recognised international forest principles (Mvondo 2006). In addition to the various SFM-based initiatives promoted by the international forest regime, COMIFAC is now charged with monitoring and coordinating REDD ('reducing emissions from deforestation and forest degradation'), the implementation of the Action Plan for Forest Law Enforcement Governance and Trade (FLEGT) and the CBD's access and benefit-sharing (ABS) initiative.

In theory, a great deal of progress can be made on all these fronts simultaneously by identifying new protected areas with large carbon stocks, promoting the reforestation of degraded forest land and improving forest management practices (Denis et al. 2009). REDD, for example, constitutes an opportunity for developing countries to advance or accelerate more coherent sectoral and cross-sectoral strategies through a series of institutional, legal and educational measures (TFD 2009). Similarly, COMIFAC's biodiversity working group (known as GTBAC) is developing a subregional ABS strategy to guide countries in the implementation of national ABS legislation and related measures. The strategy will address the results of a recent study that shows numerous inconsistencies in approaches to ABS in Central Africa based on the NLBI and the CBD, particularly around the definition of 'genetic resources', and a whole range of differences in practice and aspiration at the national level (Cabrera et al. 2010).

COMIFAC, however, finds itself in the middle of these efforts, needing both coherent direction from these overlapping international regimes and a willingness on the part of its signatory states to address their own shortcomings. Several multi-stakeholder institutional mechanisms, such as the Congo Basin Forest Partnership and the Conference on Humid and Dense Forest Ecosystems of Central African Rainforests, have been created to help facilitate subregional forest policy development and regime implementation. COMIFAC and its signatories receive guidance on navigating the complex issues surrounding ABS through the national support office of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), the novel multi-donor initiative, the ABS Capacity Development Initiative for Africa, and the CBD Secretariat. Nevertheless, increased capacity building efforts remain crucial for further success (Schmidt et al. 2009). Notably, COMIFAC remains separate from regional economic integration bodies such as the Economic and Monetary Community of Central Africa and the Economic Community of Central African States, which may weaken its efficacy (Mvondo 2006).

More successful regional initiatives differ decisively from the COMIFAC model because they are linked to wider regional polity-building projects. New governance in these frameworks serves broader political interests. Thus, it is not merely a cheaper way of implementing international agreements, it involves the embedding of voluntary coordination within the firmer regional governance structures that facilitate it. The Association of Southeast Asian Nations (ASEAN) and the EU have shown that new-governance tools can enhance the positive effects of intergovernmental and supranational governance structures (in both cases at the regional level).

Unlike the forest-focused COMIFAC, ASEAN aims to create an ASEAN Community by 2015 that comprises three pillars – the ASEAN Political – Security Community; the ASEAN Economic Community; and the ASEAN Socio-cultural Community. Forest issues lie within both the economic and socio-cultural communities. In 2009, with the endorsement of the ASEAN Multi-Sectoral Framework on Climate Change: Agriculture and Forestry Towards Food Security (AFCC), forest policy became a forerunner for integrating sectoral policies into broader strategic frameworks in support of greater policy coherence and better cross-sectoral coordination. Through the AFCC, ASEAN is attempting to address the regional particularities of climate change (ADB 2009) related to food security in the most vulnerable countries and subregions of Southeast Asia (Yusuf and Francisco 2009). A number of regional soft-law agreements have been embedded into the new cross-sectoral approach. These include the ASEAN Criteria and Indicators (C&I) for SFM, the associated monitoring, assessment and reporting format, and the ASEAN C&I for Legality of Timber. The timber legality standard forms part of ASEAN's phased approach to forest certification (Hinrichs 2009).

Besides regional benchmarking and monitoring efforts, ASEAN has also created transnational expert networks to support better-informed policymaking and scientific collaboration on forest-related issues (Thang 2009). The ASEAN Regional Knowledge Network on Forest Law Enforcement and Govern-

ance advises decision-makers and others on a regional standard to assess forest law enforcement and governance in ASEAN member states (Pescott et al. 2010). The ASEAN Regional Knowledge Network on Forests and Climate Change also played an important role in facilitating the deliberations of an ASEAN common-position paper on REDD, which was submitted to the 14th Conference of the Parties to the United Nations Framework Convention on Climate Change. The establishment of an expert network, whose research agenda includes issues such as benefit-sharing and methodological approaches, and the common-position paper process, exemplify ASEAN's efforts to address REDD at the regional scale. An overall regional climate change policy in ASEAN is still in the making (Eucker and Hein 2010).

Regional agreements and organisations like COMIFAC and ASEAN are important parts of the puzzle in terms of assessing how to improve coordination and overcome fragmentation in forest governance architecture in the context of an already existing forest regime complex. Evaluated purely from the perspective of unifying top-down treaty-based international regime-building, they create confusion and are counterproductive to efforts to create such a regime. They are unable, on their own, to manage the complexity of a fragmented forest governance architecture and are ineffective if they are established merely as an additional layer in an already complex system of international and national elements and components. Yet if this level of agreements is linked to more substantive polity-building and political or economic integration projects at the regional level, they can be a most promising unit for the implementation of new-governance tools.

6.6 Towards a multi-level forest governance alternative: patching forest governance architecture

As this discussion has shown, the global forest governance architecture has multiple levels comprising a host of initiatives at the international, regional and national levels and a very mixed record of success. It is important to note, however, that the various levels, although often treated as such in the scholarly literature, are not independent but, rather, exist in a 'nested' form. International and regional regime elements, for example, have an impact at the national level by prescribing or demanding detailed objectives and plans for the implementation of specific aspects of forest-related industrial and other activity, and vice versa. Successful forest governance reform must take this multi-level complexity to heart. As Bierman et al. (2009a) have argued, the management of such a complex set of arrangements may take the form of a new international treaty but this is quite rare. More common is the creation of a set of institutions and instruments which allows positive interplay among the various elements and levels of the regime complex (Oberthuer 2009; van Asselt 2007).

Where a conscious effort is made to design a more coherent governance architecture, the challenge is to achieve a clearer nested division of competencies rather than overlap, ambiguity and gaps (Alter and Meunier 2006; Nilsson et al. 2009). Most commonly, effective regime interplay is achieved through the careful use of procedural policy instruments and other techniques common to multi-level governance in other sectors (Gehring and Oberthuer 2000; Hafner 2003; Oberthur 2005; van Asselt 2007). This has been illustrated empirically in the case of ASEAN, whose success in implementing forest policy elements has been based not on the top-down implementation of international agreements but on the application of alternative procedures within its own emerging polity framework.

Promising governance approaches are also emerging in the realm of REDD+, which is an expanded concept of REDD encompassing also the conservation and enhancement of forest carbon stocks and sustainable management of forests in developing countries.

The multitude of multilateral and bilateral institutions and initiatives supporting REDD+ suggests that there are both opportunities for and challenges to the coordination of international efforts aimed at reducing deforestation and forest degradation and restoring forests in developing countries. In particular, it has been suggested that if these institutions do not collaborate and build on their comparative advantages, efforts to address REDD+ will create unnecessary redundancies and competition (Hoogeveen and Verkooijen 2010). Recognising this, various international institutions have called for a more coordinated and harmonised approach to REDD+ financing and technical assistance among existing multilateral REDD+ institutions, especially the Forest Carbon Partnership Facility (FCPF), the Forest Investment Program (FIP) and the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD), as well as other emerging bilateral and other multilateral efforts.

The governing bodies of the three main global programs – FCPF, FIP and UN-REDD – have mandated their secretariats to collaboratively develop options to enhance cooperation and coherence among REDD+ institutions in support of REDD+ efforts (CIF 2010). Although this coordination is still in its formative stages, ongoing cooperation among the

various instruments on readiness activities and stakeholder engagement has already yielded significant results. For example, FCPF and UN-REDD have aligned some of their REDD+-readiness processes and standards in an effort to reduce transaction costs for countries that are developing national REDD+ strategies, especially those participating in both initiatives.

In many areas, however, the *locus classicus* of enhanced multi-level coordination is the European Union. The institutionalisation of the EU goes beyond that of an intergovernmental entity; it is the world's most integrated regional organisation with extensive sub-national, national, regional and international components. As the above discussion has indicated, given the failure of top-down international treaty talks, the solution to many existing forest governance problems lies in better efforts at coordinating multi-level governance initiatives in the sector. Examining the EU's multi-level governance system thus can provide important insights into the nature of effective multi-level governance in any sector, including forest policy.

Lessons from the EU multi-level governance experience

Two kinds of multi-level governance are often distinguished in the academic literature on the subject: Type I, which comprises the traditional territorial division of labour found in federal systems; and Type II, where there is a need for a tailored governmental body to address an issue that is not susceptible to policy action by a Type I organization, for example, in the international arena and when there are particular functional governance problems (Hooghe and Marks 2001, 2003; Skelcher 2005).

As Skelcher (2005) notes, however, the two types typically exist side by side in polycentric governance arrangements. While the version in which a Type II institution is embedded in a traditional state form (e.g. an agency embedded in a state) has been studied widely, the reverse – that is, where states are embedded in an international regime, with significant regional components – is equally common. In the forest sector, as we have seen, Type I elements still deliver on-the-ground forest conservation and management. While Type II elements, on the other hand, are primarily concerned with two sets of problems: coordination and policy learning; and participation and conflict resolution. Polycentric multi-level governance implies that these problems have to be addressed at three levels: international, regional and national, and the success of new governance depends to a large extent on the multi-level governance framework in which forestry institutions are embedded. A regional organisation that serves merely as an additional layer in a structure with poor links between the international and national levels will lack the conditions to trigger voluntary coordination and thus policy learning.

In ASEAN and the EU, institutions are enshrined in larger polity-building processes and at least a limited 'shadow of hierarchy' (Heritier and Eckhart 2008; Heritier and Lehmkuhl 2008) can be cast on the participating states. New governance is therefore part of a larger polity-building objective that, intuitively, will make the concept of voluntary coordination buy-in by actors more plausible. Accordingly, regional organisations that have progressed significantly towards the formation of a supranational entity can also more easily trigger the creation of governance networks.

The existing international forest governance architecture lacks both a top-down coordinating mechanism as well as such supranational entity features. While the former may be difficult, if not impossible, to achieve, the latter can be adopted in a more piecemeal fashion, reconciling contradictions and needs between levels and improving coordination in a bottom-up fashion. To be successful, governance networks must either be embedded in supranational entity formation – which is not in the cards in the forest sector – or emerge from bottom-up policy or issue networks that have staked their claim on a policy issue. Promoting such bottom-up interest formation is a major challenge that states may be willing and able to realise only in part. And in this regard, the examination of the EU experience with multi-level governance arrangements is particularly useful.

The Open Method of Coordination

An aspect of the EU experience that is especially instructive for forest governance reform is the 'open method of coordination' (OMC). The notion of OMC first arose in the conclusions of the Lisbon Summit in March 2000, although it had already been envisaged in the procedures for coordinating national economic policies established in the Maastricht Treaty and in the employment chapter of the regional Amsterdam Treaty. The method involves the creation of common guidelines that are translated into national policy and periodic monitoring, evaluation and peer review organised as mutual learning processes and accompanied by indicators and benchmarks for comparing practices. As Borras and Jaccobson (2004:187) state:

"The OMC seeks the goal of strategically bridging policy areas in a double horizontal way, by linking national policies with each other, and by linking functionally different policies at EU level (and …) explicitly seeks a further interlinking of domestic

policy-making and co-operation at EU level, combining common action and national autonomy in an unprecedented manner. The intention with the OMC is to integrate action at various levels of governance; this opens up the possibility for truly bottom-up political dynamics, which differ from the top-down structures of the previous soft law-making."

The OMC involves actors other than state actors, is designed to foster cooperative practices and networking, and is based on the principles of voluntarism, subsidiarity, flexibility, participation, policy integration and multi-level integration (Borras and Jacobsson 2004). While international agreements that establish hard law to be implemented by states also build on a multi-level structure, the OMC takes cross-level interactions further. It builds multiple links and networks between levels, while hard-law international agreements require sovereign states to implement commonly agreed rules in a 'silo' fashion. In the context of multi-level governance, Benz (2007) refers to the OMC as a form of performance competition. Benchmarks are defined at a central level through negotiations or hierarchical processes, while competition for best practice takes place at a decentralised level. He points out that such performance competition may contribute to the "scientification" of policy if experts are involved in the definition of standards of comparison (ibid.).

Significantly for the international forest regime, the EU's OMC received political support from state and non-state actors in areas where it was not possible to get consensus on the use of EU regulatory instruments. It is generally accepted in the literature (e.g. Citi and Rhodes 2007; Zeitlin et al. 2005) that the OMC supports compromise-finding on transboundary policy issues among sovereign states.

The effectiveness of the OMC has been the subject of controversial discussion, with assessments of it ranging from 'paper tiger', to 'powerful policy tool' and "an alternative to both intergovernmentalism and supranationalism" (Zeitlin et al 2005:22). Some scholars suggest that the logic of soft law or voluntary modes of governance such as the OMC work only (Börzel 2005; Héritier 2003; Scharpf 1993) or better (Hogl et al. 2009) in the shadow of hierarchy. Radaelli (2003) and others argue, however, that the absence of sanctions is not a problem in a governance system that is based on incentives for learning and allows flexibility in policy processes.

Many authors (e.g. Héritier 2003; Héritier and Eckert 2008; Héritier and Lehmkuhl 2008; Scharpf 2002; Smismans 2008) have discussed the conditions needed for new modes of governance to produce more efficient outcomes in such multi-level situations. Börzel (2007, 2010) refers to the paradox of non-hierarchical governance: states draw on new governance in cases in which they lack sufficient means to command and control, but they also need a minimum level of authority in order to impose a policy when private actors lack the incentive to involve themselves in self-steering. For new modes of governance to come into effect, a shadow of hierarchy is therefore indispensable – even if it does not need to be very long (ibid.).

In the international forest context experimentation with the OMC is a promising way for overcoming observed governance deficiencies, especially as a strategy for quickly plugging gaps without waiting for consensus on the use of a regulatory approach or the development of financial mechanisms (Schaefer 2004). Moreover, the observation that the OMC promotes ideational convergence or social learning, even in the absence of policy learning (May 1992), is important given the deep ideational rifts in the existing forest regime complex.

Subsidiarity

This is the idea, based on practical experience with 50 years of policymaking in the European Union – that it is possible to promote integration in a decentralized and de-concentrated non-regime by delegating activity as much as possible to the level of administration capable of effective policy intervention, but no further. That is, not that all activity should happen at the local level but only that activity which is suitable for higher levels should occur at those levels (van Hecke 2003). The 'principle of subsidiarity' thus regulates authority within a political order, directing that powers or tasks should rest with the lower-level sub-units of that order unless allocating them to a higher-level central unit would ensure higher comparative efficiency or effectiveness in achieving them (Føllesdal 1998).

As Føllesdal has argued, the principle holds that an allocation of authority must satisfy a condition of comparative efficiency. Two important issues concern when and how central unit intervention may take place. Firstly, limits may be placed on the sectors to which the principle of subsidiarity applies, or else the sectors to which it applies may be determined by the principle of subsidiarity itself. The former option is illustrated in the European context by treaties specifying that the principle of subsidiarity applies to environmental regulations, the Social Charter and media policies. The latter pattern is found in so far as the Community can intervene as necessary to promote a free market in goods and services: there the principle of subsidiarity is said to regulate its own scope of application.

Secondly, the principle of subsidiarity can also regulate how the central unit is to act, so as to respect sub-unit autonomy. This Minimal Intervention Condition may have various implications. Central

regulation ought, firstly, to respect sub-unit discretion. For instance, other things being equal, a central unit might employ directives which stipulate results, while leaving choice of means to member states, rather than adopting detailed regulations which are directly applicable to member states, firms and individuals. Thus, for example, EU environmental legislation contains directives specifying maximum emission standards for carbon dioxide, leaving it to member states to decide how to meet those targets. Secondly, the central unit might actually bolster sub-unit capability, for example, by offering to monitor compliance by sub-units to agreements.

The principle of subsidiarity can also include a "Necessity Condition", allowing central unit action only when sub-units cannot achieve the desired result on their own. It is not always clear when this criterion applies, though. Parties may disagree, for instance, whether joint action is required and efficacious for environmental problems. Thus, Denmark, Germany and the Netherlands have higher environmental standards than the common level set in the EU and may just not desire any joint action. The principle of subsidiarity can proscribe central unit action in the absence of comparative efficiency, thus protecting the sub-units from intervention by the central unit. Alternatively, intervention from the central unit may be required when it is comparatively more efficient. Important governance dilemmas arise when the sub-units disagree on goals, and hence on whether cooperation is desirable. Respect for sub-unit autonomy may grant each sub-unit a veto; alternatively, central unit action may override objections to combat free-riding.

The operation of the principle of subsidiarity in EU policymaking is significant with regard to the reform of international forest policymaking in many ways. Firstly, the EU level provides a political arena for coordinating national policies and positions in the context of international processes, which parallels that of many existing regional forest regimes and can provide lessons about how that level should operate. Secondly, although the European Union Treaties make no provision for a common EU policy on forests, there is a large body of EU policies that affect the forest sector either directly or indirectly and, again, provide lessons on how such polices should be structured. Community actions like the Common Agricultural Policy, environment, and rural development policies all affect forestry. Thirdly, the evolution of a multi-level system of joint decision-making in the EU has brought about substantial changes in the logic of influence for domestic actors which might also be replicated at the regional and international forest regime levels. The supranational level comprises new actors and institutionalised arenas, provides additional points of access, and requires actors to broaden their perspectives.

6.7 Conclusion: policy patching – repairing and upgrading a fragmented governance architecture

In many sectors, including forestry, the record of attempted replacement strategies at the international level that aim to create an integrated regime founded on a hierarchical, treaty-based, architecture is poor. Disorganisation is a very common outcome of long periods of incremental policy change characterised by processes of layering and drift. While opening up better space for local innovation, disorganisation frustrates effective implementation, fuelling demands for integrated strategies that would allow multiple stakeholders to operate in a new, common and credible policy framework. However, the added complexity of attaining requisite levels of multi-sectoral coordination in a policy regime complex context is daunting (Hooghe and Marks 2001, 2003).

The difficulties of coordinating government responses across sectors in an effort to promote optimal forest policy integration are many (e.g. Fafard and Harrison 2000; Hogl 2002; MacKendrick 2005; Martinez de Anguita et al. 2008; Saglie et al. 2006; Torenvlied and Akkerman 2004; Westcott 2002; Witter et al. 2006). However, rather than reforming the existing international forest regime complex in a top-down way, the most promising alternative is to better manage the existing regime through improved multi-level governance arrangements. As discussed above, based on the EU experience and the lessons derived from successful regional initiatives in Asia, for example, patching the existing regime to allow positive interplay between regime elements on the basis of enhanced multi-level governance with a strong regional component is a promising strategy for overcoming global regime fragmentation and improving outcomes through enhanced coordination (Lidskog and Elander 2010).

Pushing international forest policymaking in a multi-level direction that not only considers lower echelons as implementing agents of intergovernmental agreements but also produces outcomes through voluntary coordination at the regional level based on mechanisms of information distribution, peer pressure (benchmarking), open-methods of coordination, subsidiarity and policy learning is essential if existing problems are to be overcome (Hoogeveen and Verkooijen 2010; Najam 2003, 2005; Najam et al. 2006).

In a highly complex issue area such as forests, multiple governance modes and regime logics are inevitable. The goal, therefore, is to avoid clashing architectures by promoting as much cooperation as possible in a fragmented architecture. As Grande (1996:333) suggested in the case of the EU:

"Compared to the ideal model of state sovereignty, a decentralized, multi-layered state with its fragmented power and its integrated, consensual decision-making must, of course, be inferior. If we take the political reality of modern democracies with their powerful interest groups as a standard, however, a multi-layered state with joint decision-making is not necessarily the less desirable alternative."

In practice, designing and implementing such an approach requires both substantial policy analytical capacity in relevant organisations and effective governance capacity. For the latter, this implies the existence of arrangements that facilitate and promote multi-level, multi-sectoral and multi-actor policy-making (Gerber et al. 2009; Weber et al. 2007). The multi-level governance literature is an important source of information on procedural instruments that create cooperative relationships between the international, regional and national levels (Bauer 2006; Monni and Raes 2008; Nilsson et al. 2009; Torrenvlied and Akkerman 2004). It includes studies of the importance of governance at an appropriate scale, such as the relative success of regional agreements vis-à-vis international-level and national-level agreements, and the possibility of making more of the principle of subsidiarity in international forest governance as a tool to promote positive regime interaction (Carozza 2003; Hogl 2000; van Kersbergen and Verbeek 2007).

Several concrete proposals for action are raised in the literature focus on practical aspects of the principle of subsidiarity (O'Brien 2000) and the creation of networked linkages within and between the different levels (sometimes called networked regionalism). For example:

- Making greater use of the larger governance context in which the regime is embedded in two complementary ways. This might involve creating new institutional spaces in which actors can begin to build network arrangements for bridging between existing institutions (Hoogeveen and Verkooijen 2010) and "clustering" (Oberthur 2005) or providing targeted efforts to reduce overlaps and promote consultation between formal elements of the regime complex.
- Making better use of transnational expert networks or 'informants' to negotiate complex linkage pathways.
- Building on the strengths of civil-society actors, not just in certification but also in the development of partnerships and other public–private arrangements. This is particularly important in improving horizontal coordination between the various sectors that affect forests.
- Identifying where competition between regime elements encourages venue shopping and turf battles, encouraging the use of negotiated linkages that promote the spill-over of rules and norms from one regime to another. Both REDD['+'] and ABS have significant potential in this respect.
- Exploring the full range of informational and procedural instruments capable of promoting bottom-up coordination.

The view of the international forest regime complex as a fragmented, multi-level governance arrangement presented here suggests that its effectiveness can be improved by careful learning from the experience of entities such as the EU and ASEAN. This could include experimentation with the OMC as a means of patching gaps in the governance architecture. As Hoogeveen and Verkooijen (2010) note, the continuing focus on 'apex-level' diplomacy has led to the relative neglect of the task of gathering broad support and legitimacy and hence to many of the implementation problems noted in the assessment of the regime contained in earlier chapters.

This chapter has elaborated on this alternative by illustrating what the linking of the various elements of a highly complex set of governance arrangements would imply. It has focused on extending the toolbox of policy instruments and distilling from existing international, national and regional experiences what the conditions are that need to be in place for new governance to be an effective alternative to traditional regime-building through top-down treaty-making.

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Appendix 6.1 Legally binding regional forest-related agreements

Name	Date	Membership	Content
Yaoundé Declaration	1999	10 Central African countries	This declaration constitutes the basis of the treaty establishing COMIFAC. The scope of both the Declaration and COMIFAC is the conservation and sustainable management of forests in Central Africa
African Convention on the Conservation of Nature and Natural Resources	1968	The original convention entered into force in 1969 and has been ratified by 30 parties. The revised convention has been signed by 36 countries but not yet ratified.	This convention aims to enhance environmental protection; foster the conservation and sustainable use of natural resources; and harmonise and coordinate policies in these fields with a view to achieving ecologically rational, economically sound and socially acceptable development policies and programmes (Article II)
Common Market for Eastern and Southern Africa (COMESA)	1994	COMESA has evolved a comprehensive decision-making structure, at the top of which are the heads of state of the 20 member countries	COMESA's forestry management strategy outlines key priority sectors for investment in the forest sector, such as payments for ecosystem services, combating illegal trade in forest products, and capturing the value of the sector in national economies
South African Development Community (SADC)	1992	15 member states in the South African region	SADC members agreed on the Forestry Protocol in 2002, the objectives of which are to promote the development, conservation, sustainable management and utilisation of all types of forests and trees; promote trade in forest products throughout the region in order to alleviate poverty and generate economic opportunities for the peoples of the region; achieve effective protection of the environment; and safeguard the interests of both the present and future generations (Article 3). To achieve the objectives, the protocol sets out measures and guiding principles for cooperation
Regional Convention for the Management and Conservation of Natural Forest Ecosystems and Development of Forestry Plantations	1993	6 signatory states in Central America	The objectives of this convention are to prevent land-use changes in forested areas located on properties that are suitable for woodlands; restore deforested areas; establishing a standard soil classification system; readjust settlement policies in forested areas; discourage the destruction of forests in lands that are suitable for woodlands; and promote land management and sustainable options (Article 2)
Central American Convention for the Protection of the Environment	1989	5 Central American States	The main objectives of this convention are coordinated action for sustainable development and conservation and the determination of priority areas for action, including for tropical forest management (Article 2)
Association of Southeast Asian Nations (ASEAN)	1967	10 states in Southeast Asia	For the forest sector, ASEAN has developed actions under the ASEAN Economic Community Blueprint, with a focus on enhancing intra- and extra-ASEAN trade and the long-term competitiveness of forest products; actions under the ASEAN Socio-Cultural Community Blueprint, with a focus on promoting the sustainable management of natural resources and biodiversity, responding to climate change and addressing its impacts, and promoting SFM; and a number of strategic thrusts under the ASEAN Multi-Sectoral Framework on Climate Change: Agriculture and Forestry Towards Food Security

Name	Date	Membership	Content
Convention on the Conservation of European Wildlife and Natural Habitats	1979	50 parties	The aims of this convention are to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the cooperation of several states; and promote such cooperation (Article 1). Particular emphasis is given to endangered and vulnerable species, including endangered and vulnerable migratory species
Convention on the Protection of the Alps	1991	8 European Alpine Countries	The Protocol on Mountain Forests, agreed in 1996, aims to preserve mountain forests as near-natural habitat and, whenever necessary, to develop them or increase their extent and improve their stability (Article 1). The protocol commits parties to general and specific measures regarding forest management, the integration of its provisions in other sector policies, local participation, international cooperation, planning procedures, protective, economic, social and ecological functions of forests, access to forests, forest reserves, incentives, research, education, and information
Framework Convention on the Protection and Sustainable Management of the Carpathians	2003	All countries in the Carpathian region	This convention sets out *legally binding measures* to integrate the conservation and the sustainable use of biological and landscape diversity into sectoral policies, such as mountain forestry; to promote and support the use of instruments and programs, compatible with internationally agreed principles of sustainable forest management; to apply sustainable mountain forest management practices in the Carpathians, taking into account the multiple functions of forests; and to designate protected areas in natural, especially virgin, forests. Recently, a Protocol on Forests has been discussed in the fora of the Carpathian Convention, but has not yet been agreed
Forest-related legislation of the European Community	Various years	27 member states	Regulation (EC) No. 2152/2003 provides for measures such as the harmonised collection, handling and assessment of data regarding atmospheric pollution, forest fires, biodiversity, climate change, carbon sequestration, soils and protective functions of forests. This regulation expired on 31 December 2006 and was replaced by a new financial tool for the environment, LIFE+, which operates in a broader context. In the context of *combating illegal harvesting and illegal timber trade* in environmental and development cooperation policies, the European Commission adopted the Action Plan for Forest Law Enforcement Governance and Trade; this plan was later endorsed by the EU Council. The Council also adopted Council Regulation (EC) No 2173/2005 on the establishment of a licensing scheme for imports of timber into the European Community

Appendix 6.2 Non-legally binding forest-related processes

Lepaterique Process		Central America, 7 participating countries
Tarapoto Process		Amazon forest, 8 participating countries
Dry-zone Africa process		28 participating countries
Dry forest in Asia process		9 participating countries
Near East process		30 participating countries
Montreal process		Temperate and boreal forests outside Europe; 12 participating countries
Europe and North Asia Forest Law Enforcement and Governance process	2004	An international steering committee comprising 13 countries, the European Commission and the World Bank was established to guide the process
East Asia Forest Law Enforcement and Governance process	2001	
African Forest Law Enforcement and Governance process	2003	
FAO regional commissions	Six regional forestry commissions established between 1947 and 1959	African Forestry and Wildlife Commission, Near East Forestry Commission, European Forestry Commission, North American Forestry Commission, Latin American and Caribbean Forest Commission, Asia-Pacific Forestry Commission
The Ministerial Conference on the Protection of Forests in Europe	1988	46 European countries and the European Community
Pan-European Biological and Landscape Diversity Strategy		55 countries
African Timber Organization	1976	14 African member states

7 Examination of the influences of global forest governance arrangements at the domestic level

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Abstract: The ultimate goal of many international and transnational attempts to address global problems is to influence domestic policymaking processes rather than simply to constrain or modify the external behaviour of states. This chapter reviews existing scholarship on the impacts that global forest governance arrangements have had on domestic policymaking processes and decisions. We apply a framework that distinguishes 'economic globalisation' – the phenomenon of increasing economic integration – from 'internationalisation', in which international and transnational pressures influence domestic policymaking (Bernstein and Cashore 2000). We review the effects of four distinct pathways of internationalisation in shaping domestic policies: international rules; international norms and discourse; markets; and direct access to domestic policy processes. This framework overcomes longstanding debates about whether globalisation forces a 'ratcheting down' of domestic standards in a 'race to the bottom', or whether increasing economic and political interdependence can create a 'race to the top'. The application of the framework to cases in Southeast Asia, Latin America, Africa, Europe and North America reveals that economic globalisation is not *determinative*. Rather, it interacts with other factors (operating internationally, transnationally and/or domestically) that condition its effects. Key lessons emerge from this review on the conditions under which, and interventions through which, the international forest regime has affected domestic forest policies, as well as on the interventions that might be nurtured to influence and nurture future policy development.

Keywords: globalisation, internationalisation, domestic forest policy, comparative public policy, norms, markets.

7.1 Introduction

The ultimate goal of many international and transnational attempts to address global problems is to influence domestic policymaking processes rather than simply to constrain or modify the external behaviour of states. This is certainly the case for forest governance because, while forest resources lie within state borders, the consequences of their uses or preservation may have global implications. Recognition of this has led recent scholarship to systematically explore how international institutions and processes influence domestic policies and outcomes, with the aim of identifying the conditions under which they shape desired behaviour.

This chapter reviews existing scholarship on the impacts that global forest governance arrangements have had on domestic policymaking processes and decisions. We organise this material by applying a framework developed by Bernstein and Cashore that distinguishes 'economic globalisation' – the phenomenon of increasing economic integration – from 'internationalisation', in which international and transnational pressures influence domestic

policymaking (Bernstein and Cashore 2000). The framework encompasses four distinct pathways that have unique causal logics in shaping domestic policies: international rules; international norms and discourse; markets; and direct access to domestic policy processes.

The distinction between globalisation and internationalisation overcomes longstanding debates about whether globalisation forces a 'ratcheting down' of domestic standards in a 'race to the bottom', or whether increasing economic and political interdependence can create a 'race to the top'. Bernstein and Cashore (2000) argue that while in some cases economic globalisation has acted as a break to improving existing regulations and standards, and/or has encouraged companies to locate in 'regulatory friendly' jurisdictions, it is also a prerequisite for successfully traversing some of the four pathways – such as the markets pathway – that could lead to higher domestic policy standards or improved practices. In other words, economic globalisation is not *determinative*. Rather, it interacts with other factors (operating internationally, transnationally and/or domestically) that condition its effects.

We chose the framework of Bernstein and Cashore (2000) over the regime effectiveness literature because of the latter's preoccupation with "hard law" emanating from formal international conventions over a specific problem or sector . While there are some legally binding agreements that address forest issues, none have forests as their primary focus and none address forest issues comprehensively. Thus, a focus on regime effectiveness is likely to miss other influences worthy of sustained attention. The chosen framework also permits us to draw on recent theoretical developments and questions with an eye to uncovering new relationships and insights. In this chapter we identify important causal trends and identify and assess the full range of impacts of international forest governance arrangements. Section 7.2 presents the framework in greater detail. Sections 7.3 and 7.4 review relevant literature to provide an understanding of whether, when and how one or more of the four pathways have been travelled in the shaping of domestic forest policies. This review draws on experiences in five regions: Southeast Asia, Africa, Latin America, Europe and North America. Section 7.5 contains findings and recommendations.

7.2 The framework: four pathways of international influence on domestic policy change

7.2.1 International rules

The 'international rules' pathway highlights the influence of issue-specific treaties (e.g. the Convention on International Trade in Endangered Species of Wild Fauna and Flora – CITES), trade agreements (e.g. the World Trade Organization agreements) and the policy prescriptions of powerful international organisations (e.g. the World Bank), whether perceived as resting on consent or coercion. The logic of this pathway is that rules are binding and create a "pull toward compliance" (Franck 1990: 24) because they came into being by generally accepted rules of right process, regardless of whether they are enforced (domestic factors and politics can influence implementation and compliance, but the obligation exists regardless). Sometimes even non-governmental organisations (NGOs) or institutions that include non-state representation (such as the International Organization for Standardization and forest certification systems) can be authoritative sources of rules to which states or firms commit (Bernstein and Cashore 2007; Clapp 1998; Meidinger 2006). Systems that are not mandated by states or intergovernmental agreements exhibit the logic of the international rules pathway when their standards gain broad recognition and come to be understood as binding by firms or other targeted actors that sign on to them (Vogel 2008).

7.2.2 International norms and discourse

International norms and discourse can both define and regulate appropriate behaviour. Particular norms embodied in institutions or informed by broader practices of global governance can affect domestic policies or lead to policy change. Chapter 4 of this report identifies shifts in international discourses around forests; the goal here is to identify, assess and analyse how and under what conditions discourses around appropriate behaviour and particular norms become institutionalised domestically or lead to policy change. Keck and Sikkink (1998) outline a series of strategies that transnational actors can undertake to encourage states to follow norms – the politics of information, symbolism, leverage and accountability. According to Keck and Sikkink's model, domestic policymaking structures or networks only matter to the degree they cause a 'boomerang' effect that

induces domestic actors to go international to seek allies and bring international scrutiny (ibid.). Global norms can also be mediated by domestic policymaking structures (Risse-Kappen 1995) or, as Acharya (2004) finds, by the ability of local actors to reconstruct international norms to fit with local norms or to reinforce local beliefs or institutions.

7.2.3 Markets

The markets pathway encompasses processes or tactics that attempt to manipulate, work with or leverage markets to create domestic policy change. It includes boycott campaigns that target foreign export markets to put pressure on exporters, certification systems that attempt to regulate or socially and environmentally embed markets directly without state mediation, and the use of market mechanisms in general. This pathway, therefore, includes both direct action – where transnational actors exert market pressure to change domestic behaviour – and indirect action. In indirect action, certification systems with pre-established standards (for example) may use carrots, such as the provision of market access, firm recognition and price premiums, as well as sticks, such as the conferring of negative attention on non-joiners, to influence behaviour.

7.2.4 Direct access to domestic policymaking processes

Domestic policies may be influenced along the direct access pathway through direct funding, education, training, assistance and capacity building, and possibly even by attempts at co-governance through partnerships between domestic and international public and private actors and authorities. Any attempts at influence along this pathway must navigate concerns about sovereignty and risk being viewed as foreign or international interference. To be successful, non-domestic actors must avoid the perception that they challenge state autonomy by focusing on altering the balance of power among existing domestic organised interests and their participation in policy networks. Transnational actors may accomplish their mission by sharing resources, ideas, knowledge and expertise with existing groups, or by facilitating the creation of new groups or coalitions.

7.2.5 The role of economic globalisation

Bernstein and Cashore (2000) hypothesise that the role of economic globalisation differs according to the pathway along which influence over domestic policies is pursued. The degree to which economic globalisation creates dependence on foreign markets is a determinant of the effectiveness of the markets pathway and is often important for the international rules pathway because many international rules result from attempts to manage economic interdependence. Economic globalisation is not, however, a precondition for the international norms and discourse or direct access pathways.

7.3 Economic globalisation of the forest sector

The forest sector is highly globalised. Prices and demand for wood products are affected by global structural changes such as the shift of wood production and manufacturing from developed to developing countries (Yasmi et al. 2010). The shift in production, especially to China (which in turn imports from tropical developing countries in Southeast Asia and Africa), has resulted in the consolidation of sawmill industries in many developed countries. It has also led to a reduction in employment in the pulp and paper industry in developed countries, including the United States (Ince et al. 2007).

Increasing consumption in developed countries accounts for some of these trends. For example, the United States now imports 25 billion board feet of softwood lumber, up from 12.1 billion board feet 20 years ago, and sales of wood furniture produced in China has expanded from 20% to 50% of the total market (White et al. 2006). European demand has followed a similar trend, with imports from China tripling between 1997 and 2006 (ibid.). The increasing role of previously unexploited timber from Russia has also shaped forest products markets and supply. The African timber industry is highly dependent on both Asian and European markets (ibid.), the latter of which, as we discuss below, has been the source of significant NGO pressure on timber procurement policies.

The drivers of economic globalisation can be traced, in part, to domestic and international policies that create tax breaks, liberalise export fees, increase free-trade zones and ease restrictions on immigration to further reduce labour costs (Essmann et al. 2007). Another factor is changing technology, which both drives globalisation and offers significant potential for shifting the global forest industry towards sustainability (Auld et al. forthcoming; Essmann et al. 2007).

7.4 The four pathways

7.4.1 International rules

Context

Despite the absence of a comprehensive forest treaty, forest-related international agreements and institutions have emerged that influence domestic rules and standards. For example, the International Tropical Timber Organization (ITTO), created by the International Tropical Timber Agreement, has played a major role in the development of criteria and indicator (C&I) for sustainable forest management (SFM). Unlike hard law, however, C&I processes aim to define and assess rather than mandate SFM; the hope is that such processes will help states to develop internal standards, such as when an Indonesian ministerial decree adopted C&I for sustainable management of production forests. Although changes in domestic policy do not necessarily mean changes in on-the-ground behaviour, both their influence on policy development and the question of whether and when governments can meet their own domestic commitments (Chrystanto and Justianto 2003) are important.

Processes (IPF/IFF/UNFF) initiated in the wake of the United Nations Conference on Environment and Development (UNCED) in 1992, as well as other international fora such as the Food and Agriculture Organization of the United Nations (FAO) Committee on Forestry, have promoted high-level commitment to the monitoring, reporting and assessment of SFM. In 1995 the Intergovernmental Panel on Forests issued more than 270 'proposals for action'. Processes to develop and implement C&I for SFM at the regional level were also initiated (Humphreys 2006; McDermott et al. 2007; Wijewardana 2008); currently there are nine such processes, encompassing 150 countries and nearly 90% of the world's forests.

Arguably, the 'soft pull' of the non-binding statement of forest principles negotiated at UNCED facilitated the development of national forest programmes (NFPs) through Agenda 21, which was also agreed at UNCED. Sepp and Mansur (2006) have identified NFPs as important tools for the implementation of Agenda 21's proposals for action. They also provide a framework within which countries can "implement international commitments to enhance sustainable forest management following deliberative and participatory approaches at the national level" (Pülzl and Rametsteiner 2002:1), while also allowing them to develop their own forest management priorities (McDermott et al. 2007).

As shown in Chapter 3, international rules that affect forests, resources within them, or forest products can also be found in a number of non-forest-specific agreements, such as the Convention on Biological Diversity, CITES and, although perhaps less directly, the World Trade Organization and regional trade agreements. In addition, recent initiatives to build regional Forest Law Enforcement and Governance (FLEG) agreements and international commitments on forests within the climate-change regime can be understood as attempts to travel the international rules pathway. For example, the 'reducing emissions from deforestation and degradation' (REDD) concept is likely to lead, eventually, to one of the first sets of rules in international forest governance to have a binding impact on domestic practices such as land-use change and logging.

Forest certification is also showing signs of affecting policy along an international rules pathway, in two ways. First, some systems are seeking recognition for their standards with a status equal to other international standards recognised under international trade law (Bernstein and Hannah 2008). Second, there are signs that support for forest certification may not just be a result of market pressure such as boycotts; it may also be based on the perception that certification systems themselves are a legitimate authority through which to develop appropriate standards (Bernstein and Cashore 2007; Cashore 2002).

Impacts on domestic policymaking

Impact of international forest soft law on national policy priorities: Much of the impact of international soft law has been expressed in the development of NFPs. Due to space limitations, we provide illustrations of these impacts from just one region, Latin America. In Guatemala, domestic policymakers explicitly justified the introduction and content of an NFP by showing that it drew on internationally agreed concepts "within the international dialogue on forests, particularly the Intergovernmental Panel on Forests (IPF) and the Intergovernmental Forum on Forests (IFF)" (Hurtarte et al. 2006: 35). Such concepts included consensual formulation and approval; the identification, design and application of new forest policy instruments (such as the National Forest Incentives Program); and monitoring and a multi-stakeholder approach (which included the introduction of forest policy round-tables in the country's nine forest regions) (ibid.).

Like Guatemala, Brazil followed international norms by developing a national forest plan that included extensive stakeholder and cross-sectoral consultations and led to important legislative reforms. New financing instruments were promoted for encouraging responsible forest management. The Ministry of Environment was charged with de-

veloping an NFP action plan and the Coordinating Commission with supporting and evaluating compliance (Alba 2008), which served to meet Brazil's international obligations for improved monitoring and evaluation.

In 1997, following agreements made at and after UNCED, the Lepaterique process was initiated to develop C&I for SFM in Central America, with support from FAO; this process has had a measurable policy influence in each of the seven Central American countries (Blas Zapata 2005). The Lepaterique process includes both regional and national-level elements.

In Honduras, the Directive Counsel to the President recognises that the Lepaterique C&I process provides the conceptual framework for the formulation and evaluation of forest laws and policies as a means to meeting the country's international NFP commitments (Barahona and Eguigurems 2004). These regional and global processes have had an influence at the forest management unit level, where the government's technical norms for forest management have been adapted to the new C&I. Similarly, Costa Rica's 1996 forest law and accompanying regulations require that forest management plans comply with the standards of the National Commission for Forest Certification, which were set according to norms developed by global C&I processes (Espinoza Camacho 2005).*

The Convention on International Trade in Endangered Species of Wild Fauna and Flora: CITES monitors and restricts the trade of species facing extinction by, among other things, identifying and listing species banned from international trade (Appendix I) or that require a CITES export permit for international trade (Appendix II). The impacts of CITES are often region-specific on the basis of the location of the protected species. In Latin America, for example, several important timber species, including bigleaf mahogany (which was listed in Appendix II in 2003**), have been listed following concerns over illegal harvesting and after scientific research by international scientific and conservation bodies (Grogan and Barreto 2005). Such listings have led many producer countries to establish national CITES management authorities, often by adapting legislation (Tomaselli and Hirakuri 2009). For example, Peru, the largest exporter of bigleaf mahogany, has made significant changes in forest law, regulation and trade control with the aim of reducing the impact of international trade on the conservation of the species.

Trade agreements: While trade agreements are certainly aimed at nurturing economic globalisation, the 2009 United States–Peru Trade Promotion Agreement* demonstrates how negotiators are inserting language to address concerns that trade liberalisation could come at the expense of forest stewardship. The Agreement is accompanied by a carefully worded annex (Annex 18.3.4**) that requires Peru to put into force the following regulatory and control measures: increasing its administrative, monitoring and enforcement staff; implementing specific measures to reduce corruption; providing criminal and civil liability for a range of activities that undermine the sustainable management of Peru's forest resources; implementing provisions to combat illegal logging; adopting and implementing specific policies to protect tree species listed in CITES appendices; promoting capacity building; and ensuring that the views of indigenous groups and other stakeholders are considered in decision-making. Annex 18.3.4 also includes a series of measures for compliance, joint monitoring and enforcement, including third-party audits of producers to ensure compliance with laws, regulations and verification procedures. Non-compliance could lead to the banning of exports, and the entire annex is subject to dispute resolution. The United States–Peru Trade Promotion Agreement has already "been a driving force to change the Peruvian Forest Law, as well as to introduce other changes that are generally in line with CITES requirements" (Tomaselli and Hirakuri 2009:13). There are worries, however, that the Agreement is worded in such a way that it ignores the possibility of trans-shipments of illegal timber through third countries such as Mexico and China (McClanahan 2010).

Most other trade agreements stop short of explicitly referencing the forest sector. Some include a reference to environmental concern modelled on a side-agreement to the North American Free Trade Agreement (NAFTA), the North American Agreement on Environmental Cooperation, which created the Commission for Environmental Cooperation. Like the NAFTA model, however, most bilateral agreements mandate monitoring and promote the

* See the Costa Rica National Standard for Sustainable Forest Management, first published in 1998 (updated in 2001 and 2009).

** Timber species listed in Appendix I include Brazilian rosewood (*Dalbergia nigra*), Guatemala fir (*Abies guatemalensis*). Timber species listed in Appendix II include Pacific coast mahogany (*Swietenia humilis*), Caribbean mahogany (*S. mahogoni*) and bigleaf mahogany (*S. macrophylla*).

* Available at: http://www.ustr.gov/countries-regions/americas/peru, [Cited 4 Jun 2010].

** http://www.ustr.gov/sites/default/files/uploads/agreements/fta/peru/asset_upload_file953_9541.pdf. [Cited 2 Dec 2010].

effective enforcement of national laws rather than create formal international obligations. As a result, the Dominican Republic–Central America–United States Free Trade Agreement includes an Environment Chapter which states that "each Party shall ensure that its domestic laws and policies provide for and encourage high levels of environmental protection"(Office of the United States Trade Representative 2010).

Trade rules may also have indirect effects when they delineate acceptable international standards. For example, certification standards could be subject to trade disputes if, when adopted by a country, they are perceived to have been developed in a way that is inconsistent with requirements for legitimate international standards under the Technical Barriers to Trade Agreement (and its annexes) of the World Trade Organization (Bernstein and Hannah 2008). Trade law and jurisprudence have not been explicitly tested in this area, however.

Complicating the picture further, other bodies have arisen to define acceptable social and environmental standards, most notably the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance, an umbrella organisation of some certification systems (including the Forest Stewardship Council – FSC). The ISEAL Alliance was created to develop agreement on best practices for its members and to gain credibility and legitimacy for its members' standards. Its detailed code of good practices references the Technical Barriers to Trade Agreement but goes beyond it by augmenting requirements for the participation of developing countries and an emphasis on production process standards in addition to the usual focus on performance or product standards.

Meanwhile, the way in which the exceptions for environmental protection written into many international trade agreements are interpreted can determine which domestic practices or regulations are accepted as legitimate and which are subject to dispute. A full discussion of relevant rules and controversies is beyond the scope of this chapter; we note, however, that debates around whether production processes – both product-related and non-product-related – and product characteristics can be considered in limiting imports could have an impact on forest practices in exporting countries. Developing countries in particular have raised concerns over the implications of such rules, which they fear will create barriers to market access for their forest products; such concerns have led to the development of strategies to limit linkages between trade and environment law. At the same time, the lack of such linkages or hard forest law has created an opening for voluntary eco-labelling and certification because they are potentially consistent with international trade rules (Bernstein and Hannah 2008; Joshi 2004).

A final potential impact involves the way in which trade rules might evolve to address climate change. There is enormous uncertainty in this area, but similar issues could arise if, for example, an economically important country decides to introduce a border tax on forest products imported from countries with low or no carbon emission standards (Hufbauer et al. 2009).

Regional forest agreements and initiatives: In the absence of a comprehensive and universal forest convention, an emerging trend among international aid agencies, the World Bank and NGOs is to address forest management and policy through regional processes. Many of these have been developed under the auspices of FLEG processes.* Co-hosted by producer and consumer countries and the World Bank, early FLEG outputs included an East Asian FLEG Ministerial Declaration (Bali, 2001) and ministerial-level declarations in Africa (Yaoundé, 2003), and Europe and North Asia (St Petersburg, 2005). Initial talks were also held in Latin America. As a result of these declarations, a number of projects and initiatives were created to promote FLEG at various scales and in various regions (Brown et al. 2008; Kaimowitz 2003; Magrath et al. 2007; Perkins and Magrath 2005; World Bank 2005, 2006, 2007a).

In the Association of Southeast Asian Nations (ASEAN) countries, a regional FLEG process opened the door for new initiatives and experiments within and across countries (BBC 2007; Brack 2005; Brown et al. 2008; Cashore et al. 2006; Ching 2007), with varying levels of involvement of civil-society and forest-sector stakeholders (Thang 2008).

Many of the FLEG processes focused much of their effort on building greater capacity for the enforcement of existing laws (Tacconi 2007), reducing contradictory legal regimes, enlisting NGOs to monitor on-the-ground activities, and reducing high levels of illegal logging through labelling and market access (Brown et al. 2008; FAO and ITTO 2005; FLEG News 2007).

While a thorough review of these regional efforts is beyond the scope of this chapter, we note that they, too, rely on soft agreements to promote good forest governance (Byron 2006). For example, the Bali Ministerial Declaration committed participating (ASEAN) countries to, among other things, "take immediate action to intensify national efforts, and to strengthen bilateral, regional and multilateral collaboration to address violations of forest law and forest crime, in particular illegal logging, associated illegal trade and corruption, and their negative effects on the rule of law". Tacconi et al. (2004:15) note that "The conference established a regional task force to

* The following three paragraphs draw on wording from Cashore et al. 2010.

'advance the objectives' of the Declaration, and an advisory group of NGOs and industry was also formed … The Indonesian Ministry of Forests and CIFOR volunteered to undertake interim secretariat functions, and it seems possible that a permanent secretariat may ultimately develop, should sufficient funding become available." A joint statement on FLEG by the governments of Indonesia and the Philippines in 2005 supported increased attention to, and cooperation among, ITTO, G-8, ASEAN and other nations in promoting FLEG (Defensor and Fathoni 2005).

Recognising that the causes of corruption and forest degradation were unlikely to be completely addressed through ASEAN cooperation, a range of international actors spearheaded by the European Union (EU) turned to the markets pathway in an attempt to promote domestic good forest governance. EU FLEGT (Forest Law Enforcement, Governance and Trade) initiatives use access to the lucrative EU markets as an incentive to promote responsible governance in exporting countries. The EU's main intervention to promote these efforts has been in the form of negotiations with individual exporting countries in Africa and Southeast Asia to create voluntary partnership agreements (VPAs) that, arguably, amount to de facto binding law.

The approach of the United States has been to promote domestic good forest governance in exporting countries by strengthening the implementation of its own international obligations regarding trade in illegal products. To do so it amended domestic legislation known as the Lacey Act – a longstanding act prohibiting the trade of wildlife, fish and plants that have been illegally taken, transported or sold – to include timber products harvested illegally in any country. The EU has followed suit, developing its own similar legislation.* The combination of these two domestic pieces of legislation, which were developed to meet existing international commitments, are among the starkest examples of how hard law can indeed shape domestic forest policy. What is important about these efforts is that developing countries such as Indonesia are fairly hospitable to them because they are aimed at ensuring that products produced in any particular country conforms to that country's domestic requirements. On the other hand, an international legal obligation would challenge, rather than reinforce, the sovereignty of producer countries.

ASEAN has also been active in coordinating and expanding commitments to promote SFM. For example, member countries committed, in 2007, to promoting C&I for SFM at the regional and national levels, and to ensuring legality. These processes are the basis for region-wide reporting on SFM at the national level, overseen by the ASEAN Secretariat, and they also provide for benchmarking. ASEAN member states share good practices in forest policy, including through the exchange of experiences on NFPs (Goehler et al. 2009). In 2009, ASEAN nations committed to a six-year plan to promote the Multi-Sectoral Framework on Climate Change: Agriculture and Forestry Towards Food Security, which promotes coordination and cooperation in the region.

Regional agreements in Latin America have followed similar dynamics. The 1978 Amazon Cooperation Treaty promotes "economic, social and environmental cooperation" among the Amazon countries. Through the Amazon Cooperation Treaty Organization (ACTO) it attempts to coordinate economic development and environmental protection across the entire Amazon Basin (McDermott et al. 2007). Progress has been described in terms of the "gradual joint definition of approaches and policies for the Amazon" (Elias 2004:24); ACTO has not led to many concrete outputs as far as binding agreements and related cooperation and coordination on the region's forests (ibid.).

In contrast, The Central American Regional Convention for the Management and Conservation of Natural Forest Ecosystems and the Development of Forest Plantations ('Central American Forest Convention') is "the only legally binding, regional instrument focused exclusively on forests [and] establishes a relatively comprehensive legal, policy and institutional framework for the forests of Central America" (McDermott et al. 2007; Tarasofsky 1999). The Convention encourages the coordination of national-level forest policies and requires parties to establish mechanisms to control the illegal trade of flora, fauna, timber and other forest products. Among other things it led Central American countries to take a common position within CITES in support of the inclusion of bigleaf mahogany in Appendix II (McDermott et al. 2007; Tarasofsky 1999).

* The United States approach through the 2008 Lacey Act amendments, which prohibit the importation of illegally sourced wood, is more bluntly unilateral, although the detailed provisions may involve collaboration with exporting countries. Under the amendments, importers are required to declare the species and origin of harvest of all plants. Penalties for violations include the forfeiture of goods and vessels and imprisonment. The approach has the advantage of putting the responsibility for legality on importers, which eliminates the 'transshipment' problem of the forest annex approach and the need to target individual exporters. The European Commission has since developed a proposal for trade legislation – the due diligence regulation (DDR) – with a similar goal of preventing the import of illegal wood into the EU from all sources. Unlike the United States approach, however, the DDR requires only "reasonable assurance" that wood products are legally produced (Baumüller et al. 2009). Australia, Japan, and New Zealand have all signalled interest in pursuing similar legislation (McClanahan 2010).

Taken together, these initiatives make inroads into the international trade of illegally logged timber, but fall short of a comprehensive multilateral prohibition (Lawson and MacFaul 2010).

Climate: The advent of REDD and REDD+ policies* is increasingly seen as the most significant contemporary opportunity to entice developed countries to commit the resources and technical assistance needed for on-the-ground implementation of international forest policies. In particular, the evolution towards REDD+ in international negotiations on climate change signals a move towards the consideration of a broader forest agenda. In addition to the inclusion of a range of approaches to forest management, REDD+ envisages the use of the REDD mechanism to improve access by marginalised communities to forest resources and to promote indigenous rights.

In anticipation of a future agreement, the 2009 Copenhagen Accord, negotiated at the 15th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, established a Green Climate Fund to support REDD+ activities (Appleton et al. 2009). As part of these efforts, developing countries were formally requested to identify drivers of deforestation; establish national forest management systems; develop guidance for the engagement of indigenous peoples and local communities in monitoring and reporting; and develop forest reference emission levels that take into account historical data and adjust for national circumstances (Cashore et al. 2010).

Cambodia, Indonesia, Lao PDR, Malaysia and Vietnam are among the countries actively engaged in climate-change schemes through United Nations-led initiatives or bilateral and multilateral agreements related to forests. The rules have yet to be fully defined, but influence is already being felt. For example, Indonesia has, through its communication to the Copenhagen Accord, committed to reducing its greenhouse gas emissions by 26% against business-as-usual projections by 2020 (although this would amount to a 22% *increase* over 1990 emissions) mainly through REDD. Questions of implementation remain, however (Maryudi 2009). In advance of a formal agreement on REDD (or REDD+), a number of specific forest carbon offset projects have been financed, including through the World Bank's BioCarbon Fund (Carbon Finance Unit no date). Some such projects are at a significant scale: for example, two forest carbon offset project in Moldova represent approximately 30 000 ha or half of the country's total afforestation effort from 2002–2008 (Galupa et al. 2008). However, while there is interest in generating a supply of forest credits through such initiatives, there are worries about demand, especially because current interest is driven by upfront financing (e.g. from the World Bank) and not financial returns from investors. Indeed, afforestation credits issued under the Clean Development Mechanism (CDM) are not tradable on the EU-ETS nor Canadian compliance markets. However, questions remain as to whether the compliance market for forest carbon credits will survive and negotiations regarding REDD+ could prove crucial in this regard.

7.4.2 International norms and discourse

Key developments

In academic debates on environmental, natural-resource and forest governance a virtual consensus has emerged that three procedural principles are fundamental to good governance. They are inclusiveness (e.g. Belsky 2003; Contreras-Hermosilla et al. 2008; Esty 2006; Ribot 1995; Tacconi et al. 2008; World Resources Institute 2009), transparency (e.g. Esty 2006; World Bank 2006) and accountability (e.g. Balboa 2009; Keohane and Nye 2003; Koppell 2003, 2005). These principles reflect broader demands for the reform and improved accountability of international institutions (e.g. Held and Koenig-Archibugi 2005; Payne and Samhat 2004) as well as 'stakeholder democracy' that includes 'collaboration' and true 'deliberation' among states, business and civil society (Bäckstrand 2006; Vallejo and Hauselmann 2004). Such normative pressure reflects more general trends in international environmental institutions, treaties and declaratory law, which, since the 1972 Conference on the Human Environment in Stockholm, have been promoting increased public participation and transparency at all levels of governance (Bernstein 2005; Mori 2004).

Equity is also emerging as a substantive global norm with respect to resource governance (Aldy et al. 1999) and forest governance (Asch 1997; Corbera et al. 2007; Meller et al. 1996; Nhira et al. 1998; Sarin 1995). Put simply, this norm demands consideration of whether "the costs and benefits of the proposed policy fall disproportionately on limited groups" (Tacconi et al. 2008). In the case of forests, a closely related phenomenon is a rising norm of granting greater access to forest resources to indigenous and forest-dependent communities.

Collectively, this wider group of norms can provide benchmarks to evaluate international proposals, or provide arguments in support or in opposition to

* REDD+ is an expanded concept of REDD that also encompasses the carbon-sequestration roles of conservation, the sustainable management of forests and the enhancement of forest carbon stocks in developing countries.

them. For example, both Kaimowitz (2003, 2005) and Seymour (2008) argue that inattention to indigenous and impoverished forest-dependent communities in efforts to promote FLEG and REDD could unintentionally favour large corporations and powerful elites at the expense of poverty alleviation and community development. Concerns that this could induce political instability have led to wide-ranging support for the procedural principles of inclusiveness, transparency and accountability and the norms of equity and access in transnational corporations and conservation groups alike (The Forests Dialogue 2008).

Arguably, the combination of these procedural and substantive norms is one reason for the recent emergence of the principle of subsidiarity, in which decentralisation is the default mechanism for promoting the fair and just allocation of forest rights and resources to forest-dependent communities and indigenous peoples (Agrawal and Ribot 1999; Oram and Doane 2005; Ribot 2008). Finally we note a normative trend, at least since UNCED, towards a view that environmental protection should be compatible with the liberal economic agendas promoted by many governments, international organisations and market players. This favours market-based policies and instruments, public–private partnerships, privatisation, open markets and free trade (Bernstein 2001; Humphreys 2008).

With respect to forest management in particular, the dominant discourse is the promotion of SFM (see Chapter 4; Singer 2008). Wang (2004: 211) refers to SFM as a concept with "one hundred faces" because of the many conflicting interests involved in forest management (Schanz 2004). Nevertheless SFM can be characterised as the suite of practices aimed at ensuring that the goods and services derived from forests to meet present-day needs while at the same time securing their continued availability and contribution to long-term development. In its broadest sense, the concept encompasses the administrative, legal, technical, economic, social and environmental aspects of the conservation and use of forests. It implies varying degrees of deliberate human intervention, ranging from actions aimed at safeguarding and maintaining forest ecosystems and their functions to those that favour specific socially or economically valuable species or groups of species for the improved production of goods and services.

Impacts on domestic policymaking

Existing scholarship has shown that international norms have played a role in mobilising certain domestic interests over others and shaping problem definition and agenda setting (Keck and Sikkink 1998). Less work has been done on the exact mechanisms through which norm diffusion occurs.

The most prominent example of norm diffusion is SFM, which is now supported in virtually every country in which forests play a key role. Most countries also now have official goals addressing indigenous rights and resources in forest governance. In Canada, for example, international norms reinforce support to expand the role of indigenous peoples. in forest management. Implementing these norms remains a challenge, however. As one Canadian study finds, "Aboriginal people generally perceive that forest management is meeting their expectations related to Environmental Values and SFM better than it is meeting their expectations related to Aboriginal and Treaty Rights, Participatory Decision-Making, and Economic Opportunities and Development" (Kant and Brubacher 2008: 389).

Domestic and global policy agendas now also reflect the strengthening norm against illegal logging. Environmental NGOs and international organisations such as the World Bank (World Bank 2006) have been especially active in promoting efforts against illegal logging, as a reaction to the lack of success of other strategies aimed at encouraging SFM.

Tenure reforms and community involvement in forest management and governance pursued through various schemes (e.g. forest land allocation, joint forest management, co-management, community/social forestry and regional forest agreements) reflect the procedural norms noted above. Households and community groups are also being provided with greater access to forest resources. For example, Lao PDR and Viet Nam are in the process of allocating forest lands to local communities and households (Hodgdon 2008). In Viet Nam, communities are recognised as legal entities eligible to participate in forest land allocation on the basis of the 2003 land law, which also marked the expansion of community participation in forestry in the country (Nguyen et al. 2008a, 2008b). In Thailand, the Community Forestry Bill was finally passed in 2007 after years of prevarication in parliament (Ongprasert 2008). This bill defines the areas in which communities can be located and the types of forest-management activities allowed.

Community forestry attracted national attention in Indonesia when the Ministry of Forestry launched its Hutan Kemasyarakatan ('Community Forestry') programme in 2007. The aim of this programme was to give local communities greater access to forests and to provide them with long-term rights; as of October 2010 these efforts had led to increased community management but not ownership rights. Community forestry has also advanced in the Philippines over the last 40 years, although recent changes towards larger-scale forestry reveals the fragility of this effort (Oberndorf 2008).

In Africa, Eba'a Atyi et al. (2008: 24) found that "all of the Central African countries have embarked

on a revision of their forest laws in order to make them compatible with the needs of sustainable forest resources management". Cameroon led the current wave of forest law revisions when it adopted a new forest law early in 1994 and enacted implementation decrees in 1995 and 1996; this initiative "inspired" the whole sub-region (Karsenty 2006). Equatorial Guinea reformed its forest law in 1997, the Republic of the Congo in 2000, Gabon in 2001, the Democratic Republic of the Congo in 2002 and the Central African Republic in 2008. These reforms introduced new obligations (Eba'a Atyi et al. 2008), the most important of which are: the requirement to manage production forests based on (sustainable) forest management plans; the need for the greater participation of local people in forest resource management, decentralisation and benefit-sharing; specific conservation objectives to be achieved across national territories; and the requirement to reduce the negative impacts of resource extraction on forest ecosystems through the implementation of regulations and guidelines. In all Central African countries the reforms related to the participation of local people, decentralisation and benefit-sharing involve the inclusion of the concepts of community forests, decentralised communal forests, municipal forests and forest revenue distribution to local government entities. In addition to legislation specific to the management of forest and wildlife resources, most countries in Central Africa have adopted laws on broader environmental protection.

The raising of awareness and reporting of corruption in the sub-region by international NGOs such as Transparency International, Global Witness and Resource Extraction Monitoring have also been key drivers. Governments in the sub-region wanting to improve their reputations at the international level are working with NGOs on initiatives such as independent forest monitoring. The results, in practice, are muted, however, because such initiatives focus mainly on the formal forest industry, which is usually the smallest part of the sector. Moreover, the influence of international normative discourse may be limited in countries where there is widespread poverty. In such cases, short-term measures to ensure subsistence may demand a higher priority on both ethical and sustainability grounds. Caution is therefore warranted in attributing too much power to norms and discourse. The pressure of economic need remains an important determinant of policy.

International normative discourse on forests has been influential in Latin America. In Costa Rica, for example, the 1996 forest law (Law No. 7575) "emphasized a market-friendly approach to forestry with a heavy dose of measures drawn from the international conservation paradigm" (Silva et al. 2002). In Peru, the 2003 forest law introduced radical changes that signalled the government's interest in long-term intensified timber production; it corrected many of the deficiencies of the old regime by drawing on insights obtained from international debates and from the Bolivian experience (Smith et al. 2006). In Brazil, the dramatic increase in international interest in the Amazon and the growing influence of the international environmental movement, which began in the 1990s, played a significant role in the country's environmental and forest policy reforms (Banarjee et al. 2009; Bauch et al. 2009).

The normative pull from UNCED that – despite no binding agreement – urged the establishment of NFPs helps explain post-UNCED developments in many European countries. In Norway, for example, UNCED, and especially the Convention on Biological Diversity, laid the normative groundwork for increased awareness and concern over the protection of old-growth forests and biodiversity (Gulbrandsen 2003).

There is also evidence that global norms may shape the regulatory practices of developing countries. In a review of forest practices regulations in 24 countries, McDermott et al. (2009) find that identical rules for riparian buffer zone protection have been developed in a host of countries with widely varied ecological systems (e.g. tropical, temperate and boreal) and management requirements. They hypothesise that "mimetic isomorphism" – in which international norms find their way into precise and specific policy regulations – may explain such convergence.

Arguably, norms of subsidiarity and greater local control also account for the growing acceptance of small and medium-sized forest enterprises (SMFEs), which are currently being upheld by civil society as potential instruments of social change and equity. In particular, SMFEs and community forest enterprises are seen as appropriate vehicles for lifting forest-dependent communities in developing economies out of poverty because they provide meaningful employment and serve growing domestic markets with value-added goods, and they do so in an ecologically sustainable manner (Molnar et al. 2010). This is particularly true in countries where forest lands are held publicly and where the socio-economic benefits of the dominant mode of business practice – large-scale, concession-based forestry – is increasingly being called into question (Kozak 2009). NGOs are responding by crafting interventions such as capacity-building in business management and market promotion that help to provide the enabling conditions in which smaller-scale enterprises will thrive. However, there remains a paucity of data surrounding the extent of employment and wealth generated by SMFEs and further work is needed, especially in developing regions where informal forest-based economies are commonplace (Kozak 2007).

7.4.3 Markets

Key developments

Four key trends demark efforts along the markets pathway over the last 30 years. First, a range of environmental NGOs, largely located in developed countries, championed boycotts and/or targeting campaigns that engaged the purchasers of timber products originating in tropical (and, in the case of Canada, temperate) timber-producing countries. Second, international agencies such as the World Bank have used a 'carrot' approach to convince governments to adopt domestic policy reforms ranging from the removal of protectionist policies (designed to promote employment in the domestic forest sector) to efforts to eliminate corruption. Third, coalitions of environmental NGOs, social activists and the private sector have created market-driven certification systems with which to promote responsible business practices, effectively bypassing domestic regulatory and land-use policies. Fourth, even larger coalitions of companies, activists, governments and aid agencies have coalesced around market incentives to promote baseline 'legality verification' as a means for reinforcing domestic sovereignty.

Impacts on domestic policymaking

Boycott/targeting campaigns: Transnational environmental advocacy groups have been successful in creating negative impressions of tropical timber products (Klassen 2003). They appeal to consumers to boycott timber from particular species or places, or that has been harvested in ways deemed unsustainable, as part of a moral responsibility to alleviate forest destruction.

While it is difficult to tease out the effects of boycotts from other market-based approaches or pathways, market pressure from boycotts has coincided with the adoption, by governments, of forest policy responses aimed at safeguarding export-oriented forest industries. Wong (1998), for example, found that 'no-buy' pleas helped to reduce timber exports from Indonesia to Japan and subsequently helped account for certain Indonesian domestic forest policy responses. For example, the government reviewed the performance of logging companies and withdrew their concessions if their forest operations were below a certain standard (Dauvergne 1997).

Boycotts have also extended to developed countries with temperate forests, most notably Canada, where boycotts were used in British Columbia in the early 1990s (Bernstein and Cashore 2000) and in boreal forests in the last decade. In British Columbia a coalition of foreign and domestic environmental groups launched a successful boycott campaign, mostly targeting the clearcutting of old-growth forests, in two of the province's largest markets, Europe and the United States.* The provincial government responded in two ways: it announced that it was in the process of reforming its rules governing forest practices; and it lobbied European countries to counter transnational criticisms. There is direct evidence that the boycotts had an effect: British Columbia's Premier Mike Harcourt acknowledged that the loss of markets motivated him to support policy change and mobilised domestic interests for policy change, although it also coincided with his own domestic reform agenda (Bernstein and Cashore 2000). A subsequent market-based campaign that focused on British Columbia's Great Bear Rainforest resulted in a collaborative agreement between First Nations, forest companies, environmental groups and the provincial government to preserve vast tracts of old-growth forests and to engage in collaborative research into responsible harvesting practices in high-conservation-value forests (Natural Resources Defense Council 2001; Sierra Club of British Columbia 2004).

More recently, boycott and divestment campaigns targeted boreal forest conservation (Scher 2008). Covering 566 million hectares, Canada's boreal forests account for a quarter of all forest remaining globally and form a unique and productive mosaic of interconnected habitats that include forests, lakes, river valleys, wetlands and peat lands, as well as tundra in its northern reaches. The United States-based Pew Charitable Trusts established the International Boreal Conservation Campaign to serve as an umbrella organisation for the domestic and international environmental NGO constituents of a new boreal coalition (Scher 2008). Two of these organisations – the Canadian Boreal Initiative and the Boreal Songbird Initiative – were also funded by Pew Charitable Trusts. The coalition travelled the markets pathway to bring attention to the plans of the forest, mining and oil industries to conduct commercial activities in much of the boreal forests. Simultaneously, it engaged in coalition-building along the direct access pathway.

A range of domestic policy reforms consistent with the campaign's objectives have been undertaken since the launch of the campaign. Between 1999 and 2005, 26.5 million hectares of the boreal forests were placed under strict protection and an additional 12.1 million hectares were placed under interim or imminent protection (IBCC 2007). In November of 2007, Prime Minister Stephen Harper announced the protection of a further 10.3 million hectares in the

* The United States accounted for 59% of British Columbia's forest products export market, the European Union 11% and Japan 21% (Natural Resources Canada 1998)

Northwest Territories. In July 2008, Ontario Premier Dalton McGuinty pledged to protect half of Ontario's northern boreal forest from resource extraction, an area amounting to roughly 26 million hectares, which is larger than the land area of the United Kingdom (Boyle 2008; Pala 2010). Soon thereafter, Quebec Premier Jean Charest also announced that half of Quebec's northern forest would be protected from development and resource extraction. These two recent announcements in Ontario and Quebec constitute two of the largest conservation actions in the history of North America. They push the total area of the boreal forests brought under permanent or interim protection since the inception of the campaign to 23% of the total area (IBCC 2008); an additional 8% of the area was already under protection.

In May 2010 the campaign led to the signing of yet another historic agreement. The Forest Products Association of Canada, a trade association that represents the majority of logging companies in Canada, announced the biggest forest-conservation deal in history. Each of the 21 members of the Association will set aside for protection slightly less than half of the land for which they hold leases across seven provinces; in aggregate, this amounts to more than 30 million hectares of Canadian boreal forest. In addition, Association members have pledged to manage the remainder of their leases to protect ecologically and culturally significant sites and to have their commercial operations certified by the FSC. In return, nine environmental NGOs, including Greenpeace and The Nature Conservancy, have pledged a moratorium on market campaigns against the products of Association members.

Despite these successes, research has shown that, overall, targeting and boycotts, especially when used as the primary source of leverage, have had very uneven success. In the late 1980s and early 1990s, for example, transnational actors attempted to use global markets to force policy responses in Latin America and other tropical forested regions by threatening boycotts of tropical timber. These attempts largely failed, however, due in part to their "limited latitude for action" within the international trade regime and the subsequent threat of trade sanctions from producer countries (Bass and Guéneau 2005: 8). Without direct evidence from political leaders, too, it is difficult to know if boycotts are necessary or sufficient for policy change, since policy change that appears to be in response to a boycott may actually be the result of domestic dynamics or action taken along other pathways, which often coincide with market campaigns. The agreement between the Forest Products Association of Canada and environmental NGOs described above is an example of change via a direct access pathway, with the threat of boycotts (the markets pathway) providing considerable

Single-agency efforts: Our review of single-agency efforts draws on examples of well-intentioned efforts by the World Bank to promote improved forest governance in developing countries. However, these examples should be understood in the wider context of the increasingly active role of the World Bank in environmental policy generally, and forest policy in particular.

Given its financial resources, political backing and expert-driven policies, the World Bank often takes a lead role among international agencies, and it has also been at the forefront of promoting neoliberal environmental policies. It first explicitly articulated this view of the environment in the 1992 World Development Report, which promoted the view that economic growth without environmental deterioration could be achieved through market liberalisation, private property rights and the use of market instruments to change environmentally damaging behaviour –what it called 'win–win' solutions (World Bank 1992). Since then, however, the World Bank has tempered this view with an emphasis on good governance and other evolving policies, sometimes in response to criticisms from members and environmental NGOs (Park 2007). The examples below focus only on the World Bank's significant, although often short-lived, impacts, and sometimes those of the International Monetary Fund (IMF), in pressuring countries to undertake specific policy reforms.

In Indonesia, the World Bank insisted that the country remove its restrictions on raw log exports (Goodland and Daly 1996); officials at both the World Bank and the IMF reasoned that this would promote economic growth and therefore alleviate poverty (Barr 2001). Recognising the importance of both the rule of law and development to the alleviation of poverty, the World Bank also promoted decentralisation, believing that it would permit forest-dependent peoples to share in the prosperity that economic growth promised. The Bank also undertook a broader effort to promote SFM in Indonesia by financing several forest-sector projects (Dauvergne 2001) and promoted the rationalisation of the domestic regime to improve the sustainability of forest operations and processing industries. The effort involved three main strategies: improved enforcement of the silvicultural system; increased capture of timber rent; and improved efficiency of logging operations, processing industries and marketing (Barr 2001). Initially the Government of Indonesia attempted to minimise the involvement of the World Bank in the sector (Gautam et al. 2000), but it became more favourably disposed towards its involvement in the wake of the 1997 Asian financial crisis. A bail-out agreement with the IMF required the government to adopt the World Bank's forest policy strategies (Barr 2001; Dauvergne 2001).

Also in Southeast Asia, the World Bank promoted greater access and resource rights in the Philippines

and Cambodia. In both countries the hypothesis driving these efforts was that the greater integration of forests into the local economies of rural communities would create greater local commitment to forest conservation and SFM.

In Central Africa, the World Bank has used its structural adjustment programmes and Heavily Indebted Poor Countries initiative during times of economic hardship to influence forest policymaking. For example, Karsenty (2006) argues that it is not coincidental that Cameroon became the first country in the sub-region to adopt a new forestry code and to undergo a structural adjustment programme. The World Bank economists who piloted forest-sector reforms in Cameroon acknowledge that: "The economic crisis gave the World Bank and the IMF an opportunity to introduce and support far reaching reforms in the forest sector ... The forest sector was a focal point of three successive adjustment programs ... : the Economic Recovery Credit of 1994 and the second and the third Structural Adjustment Credits" (Topa et al. 2009: 23). The Bank built a broad coalition of donors and influential international NGOs (e.g. the World Wide Fund for Nature – WWF, the Wildlife Conservation Society, the World Resources Institute, the International Union for Conservation of Nature and the Last Great Ape Organization). It also presented the reforms as a set of conditionalities to be met by the government in order to gain access to international financial support. The Government of Cameroon responded by adopting all the proposed reforms at the regulatory and institutional levels. However, the results have been unconvincing in some areas – such as community forestry, where "generating significant income from community forests has proven difficult" (Topa et al. 2009: 106).

Certification: Certification is a global-supply-chain-focused institution that may be characterised as an example of non-state, market-driven global governance. The concept was first raised at the international level by NGOs in 1989 in the context of ITTO (Elliott 2000; Gale 1998). At first it was met with resistance from tropical producer countries; thus, ITTO decided not to endorse any particular certification system (although it did provide expertise and resources to member countries that wished to pursue certification of their own accord). This, combined with a general frustration of many of the world's leading environmental groups over the failure of intergovernmental efforts to achieve a binding global forest convention, led WWF to spearhead a coalition of environmental, social and business activists to establish the FSC in 1993 (Humphreys 2006).

The development of certification systems tapped into emerging normative support for win–win solutions by simultaneously championing markets, the amelioration of environmental functions in the world's forests, poverty alleviation, indigenous rights and community participation. This normative underpinning may explain the longstanding World Bank support for FSC-style certification, which represents an opportunity to support socially and environmentally responsible practices in ways that are consistent with the World Bank's broader neo-liberal goals.

The FSC developed ten (abstract) principles that set the *goals* of responsible forest management, with concrete criteria detailing policy *objectives*. These principles and criteria are both prescriptive and wide-ranging; they address a host of natural resource management challenges, including biodiversity, local water pollution and wildlife protection, as well as community rights and worker protection (Meidinger 2003).* Specific policy prescriptions are to be developed through national or sub-national multi-stakeholder bodies charged with incorporating ecological and social knowledge into those prescriptions. For certification, the FSC also requires third-party compliance audits of operators. If successful in their bid to receive certification, operators are awarded with an eco-label with which to promote their corporate image and to meet demand along the supply chain for certified products.

While many companies and forest industries initially baulked at the idea of outside scrutiny of their forest practices, two discernible trends had emerged by the mid 2000s. First, most industrialised countries in North America and Europe came to embrace third-party certification; many supported FSC competitors that emerged in the 1990s, the standards of which are generally more flexible than those of the FSC. In addition, because these competitor schemes were initiated by forest-owner and/or forest-industry associations, their governance structures have tended to downplay the role of environmental groups. Instead, they give a greater role to producers and to non-environmental stakeholders and conservation groups that are closer to the centre of the political spectrum; partly as a result, such schemes are more limited in scope than the FSC. This pleases some forest owners, who feel that FSC requirements are too cumbersome and/or too expensive for current markets. Recently, most of the non-FSC schemes have come under the umbrella of the Programme for the Endorsement of Forest Certification (PEFC) (Humphreys 2006; Vallejo and Hauselmann 2001).

* The ten FSC principles are: (1) compliance with laws, international agreements, and FSC principles; (2) tenure and use rights and responsibilities; (3) indigenous people's rights; (4) community relations and worker's rights; (5) multiple benefits from the forest; (6) environmental impact and biodiversity conservation; (7) management plans; (8) monitoring and assessment; (9) maintenance of high conservation value forests; and (10) plantations.

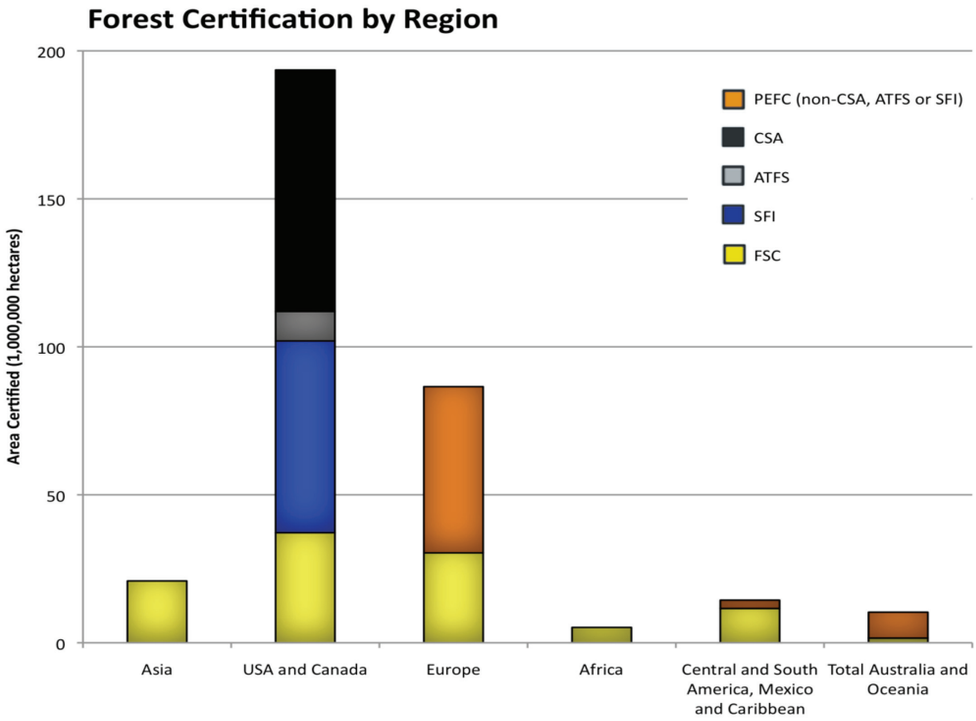

Figure 7.1 Forest certification by region (PEFC = Programme for the Endorsement of Forest Certification schemes; CSA = CSA International; ATFS = American Tree Farm System; SFI = Sustainable Forestry Initiative; FSC = Forest Stewardship Council). Graph compiled by Ben Blom. Sources: ATFS 2004; FAO 2005; FSC 2010; PEFC 2009; SFI 2010.

Despite individual cases of success, aggregate data reveal that, after more than a decade, less than 5% of the global area of certified forests is found in the tropics, initially the target of many proponents of certification (Eba'a Atyi and Simula 2002). In fact, much of the support for FSC and PEFC certification (and most of the certified forest – see Figure 7.1) is in North America and Europe, where policy enforcement is already relatively strong (Esty and Porter 2002) and where, at least on public lands, policies are quite prescriptive Widespread support in developing countries in general, and in the tropics in particular, continues to be elusive.

Hence, one of the key issues for generating broader support for certification in developing countries has been whether and when private institutions might be able to adapt and respond to new challenges in ways that either bypass or intersect with intergovernmental and domestic efforts.

One of the first responses to uneven support for certification was to provide additional incentives to companies in the tropics, who face greater obstacles in adopting policies consistent with certification than their competitors in developed countries. Numerous players have emerged that provide assistance by linking responsible timber producers and consumers and by providing support for the verification of legality and/or sustainability. For example, the Tropical Forest Trust TFT) works with and gives companies access to FSC markets in return for a commitment from companies to become certified. It has developed the Forest Market Linking Program to provide assurances of legality to buyers. In Indonesia, the TFT assists companies who wish to establish chain-of-custody systems in support of specific market requirements.

Transnational actors have also used the markets pathway to support consumer–producer networks for sustainable timber products and forest certification throughout the region. In particular, WWF facilitates trade linkages between companies committed to achieving and supporting responsible forestry through its Global Forest Trade Network (GFTN) programme. Such linkages have been established in Mesoamerica, the Caribbean, Bolivia, Brazil and Peru.

Legality verification: More recently, focus has shifted from certification to promoting baseline governance through the verification of legality – in many ways reinforcing sovereignty rather than bypassing it, as certification has attempted to do. Here, we discuss how three pathways towards policy change have intersected to produce innovative effects.

As Tacconi (2007) notes, NGOs such as the Environmental Investigation Agency, The Nature Conservancy and WWF attempted to use the foreign-market dependence of the Indonesian forest sector to bring about change to policies concerning illegal

logging; they sought to organise boycotts of Indonesian timber products in Europe and to influence markets in China and Japan. Our above discussion on the international rules pathway discussed how domestic legislation in the EU and the United States has increased the international obligations of both by requiring greater efforts to reduce imports of illegal wood. This has had the effect of enhancing market pressure, potentially setting the stage for improving domestic public policy efforts in developing countries, which has, in turn, facilitated the direct access pathway. Hence, understanding how the market pathway might intersect with efforts undertaken along other pathways is important to producing effective and enduring results.

To be sure not all of these intersecting pathways produces uniform results across time or space. The EU's efforts on illegal logging a decade ago can be seen as a reaction to the market pressure exerted by NGOs but these efforts stand in contrast to the limited public policy impact that similar market campaigns have had in Japan and China. Likewise, public policy responses in Indonesia to EU market pressure were 'paper' edicts only. They included Presidential Instruction Number 5 Concerning Eliminating Illegal Logging and the Illegal Timber Trade in the Leuser Ecosystem and Tanjung Puting National Park, issued on 19 April 2001; and the Statement of the President of the Republic of Indonesia on Repressive Measures Against Illegal Logging, issued on 24 April 2001 (Currey 2001; Tacconi 2007).

However, ongoing market pressure to institutionalise market incentives led the EU and the United States to develop formal policies to weed out illegal logging. As discussed above, this included the negotiation (in the case of the EU) of VPAs with individual countries and the passing of legislation (in the case of both the United States and the EU) that requires importers to show due care in ensuring that they are not importing illegal timber. These developments have led to the emergence of legality verification, in which third-party auditors assess forest practices to determine whether they meet baseline legality requirements. Products that meet those requirements obtain a label that importers can use as evidence that they have shown due care in avoiding the importation of illegally obtained products. Even the more formal VPAs have provisions for the third-party, non-governmental auditing of forest practices to verify that companies and governments are meeting their commitments. The process is framed within a 'timber legality assurance system' (TLAS) that includes a clear definition of legality, verification, independent monitoring, the issuing of licenses, and chain-of-custody control (Lawson and MacFaul 2010).

The VPA between Indonesia and the EU (Colchester 2006), while an understandably cautious process, was the first complete agreement in Southeast Asia framed within a TLAS. As Maryudi (2009) explains, the Indonesian TLAS (*Standar Verifikasi Legalitas Kayu* – SVLK) was submitted to the Ministry of Forestry in 2008 following five years of negotiation under the auspices of the UK–Indonesia Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan. The lengthy process was due in part to debates about whether the agreement would merely cover the distribution and trade of timber products or also broader forest management questions such as planning, implementation and harvesting. Another key point of contention, which may reflect differing competing interests domestically, was that EU negotiators requested that the third-party verifiers of legality be mutually agreed. The Government of Indonesia acceded to this request in August 2009, paving the way for a formal agreement.

Similar results have occurred in Africa, where the dependence of the timber sector on EU markets has been a catalyst for governments, including Ghana and the Republic of the Congo, to engage in negotiations with the EU on VPAs.

These approaches are not a panacea to problems of forest governance, and their impacts on the ground remain to be seen. There are also some indications that gains from curtailing *illegal* logging may be countered by increases in unsustainable legal logging(Lawson and MacFaul 2010). Nevertheless, the combination of the markets, international rules and market access pathways appear to hold promise in ways that a single pathway may not. It is for this reason that Maryudi (2009: 11) argues that the approval of the SVLK and the signing of the VPA in Indonesia appear "to hold potential for working in tandem with local institutions, to develop a durable and effective institution for reducing illegal logging in the country".

Corporate social responsibility: Worldwide there is an undeniable trend towards the adoption, by companies of corporate responsibility (CR) practices, motivated by 'soft' economic pulls such as the benefits that can accrue to companies that are seen as responsible stewards. In the forest sector, much of this is a logical extension of forest certification; nevertheless, the range of CR practices is now quite diverse (Vidal and Kozak 2008b). Forest companies in Africa and Latin America are adopting practices related to health, education, training and community development; Asian companies are more concerned with emissions control, energy efficiency, and recycling; and North American and European companies are concentrating on SFM (Vidal and Kozak 2008a).

The reasons underlying the adoption of CR practices by forest companies are also diverse, but they generally seem to revolve around legitimisation and improved transparency. The aims are to address in-

creasingly rigorous societal expectations regarding the stewardship of forest resources; demonstrate a commitment to sustainability; and, ultimately, maintain market share (Jenkins and Smith 1999; Panwar et al. 2006). The multi-dimensional nature of the phenomenon speaks to the need to disentangle the market benefits from the normative constructs inherent in the national and company-level environments (Vidal and Kozak 2008a).

7.4.4 Direct access to the domestic policy process

Key developments

Although perhaps the least studied of the four pathways, the direct access of international forest institutions and organisations to domestic policy processes has arguably had the biggest impact on domestic policymaking. Direct access captures those processes in which non-domestic financial resources, technical knowledge, expertise, training and learning can dramatically shape domestic politics. It works by mobilising societal interests, generating new coalitions or confronting existing ones, and providing resources for effective and enduring impacts on domestic governance and policy networks. As Singer's (2008) assessment of the impacts of the international forest regime in Cameroon, Indonesia and Brazil finds, "What makes the strength of the IFR[international forest regime], therefore, is not its formal framework or the official negotiations … but rather its informal aspects. In particular, principles and policy networks … have transcended spheres and contributed to shaping Brazilian, Cameroonian and Indonesian FRPs [forest-related policies], and vice-versa" (Singer 2008:363). Similarly, informal policy networks, such as ASEAN's regional knowledge networks, seem to be particularly effective in Asia because of "a cultural aversion to formal institutional arrangements and a reflection of an Asian style of governance and diplomacy" (Nesadurai and Stone 2000). Unquestionably, a range of international aid agencies, institutions, NGOs and educational institutions have travelled this pathway in the last 20 years under the auspices of 'capacity building', which often works to reinforce, rather than to directly challenge, domestic sovereign authority.

The enormity of this effort and its impacts means that we can only summarise a few examples through which the direct access pathway has shaped and influenced domestic forest governance. It has done so by providing resources to civil-society organisations, thus changing the relative influence of different actors and domestic policy networks; fostering and nurturing domestic governance learning networks across coalitions; and assisting governments in enforcing or implementing domestic policy commitments by providing technical expertise, resources and incentives.

The evidence below both reinforces and requires an expansion of the analysis of this pathway by Bernstein and Cashore (2000). It confirms the attention of the original analysis to the role of outside actors in changing domestic policy networks, but adds to it an emphasis on how policy learning can shape domestic politics in unintended ways (Howlett and Ramesh 2002, 2003; Howlett and Rayner 2006).

Impacts on domestic policymaking

Domestic civil society: One of the most intriguing ways in which non-domestic organisations affect domestic policy is the use of resources from foundations, environmental NGOs, companies and government agencies to leverage or grant more resources and staff for existing domestic organisations and/or to create new domestic organisations or coalitions (Balboa 2009). For example, foundations and environmental NGOs in the United States influenced Canadian forest policy in this way, beginning in the 1980s. Working first in British Columbia and then expanding to include the Canadian boreal forests, these groups combined market-based and direct access approaches. The latter included the granting of financial resources to environmental NGOs and marginalised groups, including First Nation groups, which provided them with the staff, time and expertise to become active in the domestic policymaking process. While it is difficult to tease out the causal impacts of the direct access pathway compared to the markets pathway, it seems likely that the direct access approach increased both the pace and scale of forest policy reforms (Scher 2008).

Direct access strategies have been pursued in developing countries, especially in Southeast Asia. In Indonesia, a range of non-domestic groups took advantage of the fall of the Suharto regime to strengthen civil society with a view to fostering new ideas and interests within domestic policymaking (Okamoto 2001). For example, organisations such as The Nature Conservancy successfully became involved in policy networks, partly because of the fragmentation of authority that followed the decentralisation of the government administration (Barr et al. 2006).

A number of donor agencies, including the UK Department for International Development and Norway's Partnerships, as well as transnational environmental NGOs, have actively sought to promote social and environmental values in forest management in Indonesia. Initially, the focus was on forest practices; illegal logging; democratic decision-making and forest governance; poverty alleviation among

forest dwellers; resolving tenurial problems; and increasing local forest management. Recently, many donors have begun to focus on climate-change mitigation and adaptation.

There is strong evidence that the direct access pathway helped environmental NGOs and interests in Indonesia to implant strong environmental and social protections within the new Indonesian forest law. Non-domestic organisations sought alliances with local counterparts, research institutions and universities. The Center for International Forestry Research and the country's two leading forest universities (Bogor Agricultural University and Universitas Gadjah Mada) remain the most prominent focal points, providing science-based policy inputs.

However, the ongoing and dynamic nature of these efforts in Indonesia, and the broader market forces of economic globalisation, which have resulted in the significant conversion of natural forests to plantations, mean that this direct access pathway has had mixed results. There have been significant challenges in implementing the new forest law, including the fragmentation of authority. Thus, even if the involvement of non-domestic actors has helped to influence domestic policy networks, they do not appear to have had a discernible impact on the ground. The private sector remains highly influential, and disentangling the interests of business and government is often difficult. Domestic challenges in the implementation of new laws, and the short attention spans of international donors – who move quickly from one instrument (such as forest certification) to the next (such as REDD) – have placed sometimes confusing and conflicting demands on government policymakers. Perhaps in part for these reasons, international NGOs such as The Nature Conservancy that have partnered with domestic organisations in Indonesia appear to have made more headway in influencing local-level governments* than in either making changes to land-use policies or influencing national-level policies.

The dominant strategy among environmental NGOs is to travel simultaneously on the direct access pathway *and* the markets pathway. For instance, WWF created a Southeast Asia focus NGO –Traffic – to partner with domestic organisations, including government agencies, to help reduce illegal logging in the region.

In contrast to initiatives with a broader focus on SFM, direct access initiatives on the verification of legality appear to be gaining in strength and impact. In Peninsular Malaysia, for example, the government has instituted a number of measures to curb illegal logging, including spot checks, helicopter surveillance, regular training programmes for officers and public awareness campaigns. In Indonesia, the Ministry of Forestry has increased the number of forest guards, trained them to prevent illegal logging and, following civil-society demands, enacted the Anti-Money Laundering Act (in 2002) and ratified the United Nations Convention against Corruption (in 2006).

The direct access pathway has a longer history in Africa than in Southeast Asia. It was not until the early 1990s, however, that forest-focused international organisations began to target forest policy there, as illustrated by developments in the Central African forest sector. Until the late 1980s, most donor projects, including those of the Canadian International Development Agency (CIDA), focused on field practices, experiments and inventories. Beginning in the 1990s, however, CIDA's approach in Cameroon moved towards engagement with the central forest administration. It created an advisory office adjacent to the office of the National Director of Forests and included in its desired outputs key elements of the legal and institutional forest management framework. During the first phase of the project, from 1992 to 1995, Cameroon adopted a new forest law and created a zoning (land-use) plan for its southern rainforests. CIDA's success in influencing Cameroon's forest policymaking process served as an example to other donors. By 2000, the minister responsible for forests and wildlife had technical advisors or advisory teams from France, Germany, the UK and Canada. Currently, all ministers dealing with forests in Central Africa have access to permanent technical advisors or advisory projects funded by donor countries. The aim is always to institutionalise newly introduced forest management approaches through laws, regulations or official guidelines adopted following policymaking processes. As a result, Singer (2009:357) found that travelling this pathway led to "a new network … which has determined the main direction of Cameroonian [forest resources policy] in the last decade."

International NGOs also became active. For example, WWF has engaged with the Government of the Democratic Republic of the Congo to enforce policies within forest concessions. The project addresses the implementation of the forest administration's official guidelines governing concession forest management. It also reinforces the international norms and discourse pathway because it incorporates internationally recognised forest management norms such as the African Timber Organization/ITTO principles, C&I for the sustainable management of African natural tropical forests and some aspects of the FSC principles and criteria.

Direct access strategies have also been undertaken by more radical international NGOs advocating

* The Nature Conservancy has been active in the Berau District, East Kalimantan, collaborating with the district government in developing REDD activities.

the banning of industrial timber harvesting in the Congo Basin. These NGOs develop networks of local NGOs that relay their opinions during domestic stakeholder consultation processes. For example, an open letter to the minister in charge of forests in the Democratic Republic of the Congo was published in April 2008 requesting a "moratorium on new industrial logging titles" in the country. A group of international NGOs – Greenpeace, Global Witness and the Rainforest Foundation – signed the letter along with a representative of a network of ten local NGOs. Similarly, the German-based Rettet den Regenwald organised national NGOs in Gabon to oppose, in 1996, the first FSC certificate granted in the sub-region (to the logging company Leroy Gabon). The certificate was later withdrawn (Eba'a Atyi 2006).

Fostering learning across coalitions: An underexplored impact of international forest governance arrangement is their role in fostering learning across domestic coalitions. For example, the C&I processes dominant in the 1990s focused NGOs, governments and industry organisations on 'how things work', which led to a realisation of the importance of collaborative learning, especially on such complex issues as forest management. Likewise, development assistance agencies that support FLEG processes frequently foster learning among disparate stakeholders. For example, German Technical Cooperation (GTZ) has started to provide funds to numerous local agencies, including the Indonesian Forest Agency, to carry out research on the impacts of conventional logging as well as trials on reduced impact logging. It also provides technical assistance to improve the standard of operations. Another international body, the Tropical Forest Foundation, helped to provide the Government of Indonesia with a scientifically sound foundation for reduced impact logging, leading to the development of guidelines for better forest practices (Klassen 2003).

In Latin America, transnational actors and international institutions have influenced and in some cases directly accessed domestic forest policymaking processes, largely through the provision of resources, knowledge, training and finance. In Costa Rica in the mid 1990s, for example, the United States Agency for International Development (USAID) strengthened the historically poorly organized private forestry sector with organizational knowhow and funding, establishing the Costa Rican Forestry Chamber (CCF). The CCF became the main advocate for the timber industry and was a significant stakeholder in the development of the 1996 forest law (Law No. 7575) (ibid.). In Bolivia, one of the key factors in reform was the emergence of political conditions that were favourable to democratic participation. As a result, an intensive dialogue on forest-sector issues took place with the engagement of many stakeholder groups. International assistance agencies such as USAID, FAO and the World Bank, along with international environmental NGOs, contributed to the dialogue by providing funding, technical information and advice to decision-makers (Pavez and Bojanic 1998).

In Peru, the government's interest in improved forest practices shifted in 2002–03 with the implementation of the new forest law. With the support of (principally Dutch) development agencies, the then Minister of Agriculture brought together a coalition of government forest officials and non-government forest stakeholders (Smith et al. 2006). The combined weight of this coalition was able to counteract those opposed to the new law. The coalition built on and expanded a round-table of stakeholders to develop a consensus on the implementation of the new law, and presented its feedback and recommendations to the government (Smith et al. 2006).

Regional-level strategies to foster learning, such as 'capacity development' for knowledge transfer and mutual learning processes among peer countries (e.g. Goehler et al. 2009; Goehler and Schwaab 2009), are also being promoted by development agencies (Ferroni 2001). In a seven-year regional program with ASEAN, for example, GTZ provided advisory services and financial resources to both formal intergovernmental bodies, such as the ASEAN Senior Officials on Forestry, and the more informal ASEAN regional knowledge networks. Focused discussions on specific policy interventions were led by the ASEAN Working Group on a Pan ASEAN Timber Certification Initiative. These helped to foster agreement by all ten ASEAN member states on a regional guideline for phased approaches to forest certification and on the ASEAN C&I for timber legality (Hinrichs 2009). The EU, GTZ and USAID supported the working group with technical expertise and financial resources.

In 2008 ASEAN established regional knowledge networks on FLEG and forests and climate change, with the primary motive of better informing decision-makers through policy-oriented research as a precondition for effective policy implementation (ASEAN 2008, 2009). GTZ played an initiating role, advised on network management and, together with AusAID and the World Bank, provided financial resources for network activities. The regional knowledge network on FLEG organised a learning process in which countries shared their professional views, developed collective wisdom on FLEG, and shared experiences about the successes and failures of FLEG policies (Pescott et al. 2010).

It is difficult to establish a cause-and-effect link between these processes and subsequent change, or to attribute such change to specific capacity-building activities. An evaluation by the World Bank assessed the majority of its regional programs as effective and suggested that "even stronger results could be

achieved if support for regional programs were better developed as an international aid practice" (World Bank 2007b). In a similar vein, Birdsall (2004) argues that regional public goods in developing countries, such as forests, are under-funded despite their potentially high rates of return compared to traditional country-focused investments.

Recognition of the importance of understanding the impacts of single policy interventions on different pathways is illustrated by the influence of the FLEGT process in Central Africa. While drawing on the markets pathway for economic incentives, these efforts have also led to considerable direct access interventions such as capacity building and coordination. In preparation for VPAs, for example, the Republic of the Congo, Cameroon, Central African Republic and Gabon all initiated efforts to permit independent observers to monitor their forest operations. Subsequently, NGOs working to promote transparency, such as Global Witness and Resource Extraction Monitoring, became involved in forest monitoring – a sovereign state activity – and their monitoring reports were disseminated widely. Cameroon and the Republic of the Congo have also worked with the World Resources Institute to develop interactive forest atlases showing forest concessions, which have been made available publicly. In the Democratic Republic of the Congo, the development of a legal framework for forest management and the conversion of former logging titles to concessions have been done with notable transparency. At each stage of the process the forest administration has worked consistently with national and international NGOs, as well as with technical international donors and private-sector partners (Eba'a Atyi et al. 2008).

7.5 Findings and conclusions

The following three broad conclusions emerge from our review:

1) Domestic effects cannot be studied simply by looking at the international rules pathway, even if one takes into account the fragmentation and institutional complexity of forest governance that arises due to the lack of a comprehensive international forest regime. The literature shows significant effects along the three other pathways. Broadly speaking, the direct access pathway shows the most widespread effects, both directly and through interactions with activities along other pathways.
2) Globalisation does not always lead to downward pressure on environmental and social standards. Its interaction with internationalisation, as defined here, can push in ways that either do, or hold the potential to, 'ratchet up' policies and behaviours. The literature on the globalisation of the forest sector is relatively well developed, and the literature on forest governance and the political economy intuitively recognises that the globalisation/internationalisation relationship is complex; nevertheless, few studies address this interaction explicitly. The next step is to explore the conditions under which these counteracting effects ratchet down standards and lesson enforcement, provide incentives for illegal practices, or produce effects that are beneficial to environmental quality. There is no consensus in the literature on which of the four internationalisation pathways are likely to be most successful. There is a tendency in the literature to move away from a focus on international rules towards market-based interventions, but this trend appears to stem more from an analysis of actual policy instruments than from a systemic comparison of the countervailing effects of each pathway or their interactions with globalisation.
3) While we know a great deal about activities along each of the pathways, there is still a significant gap in knowledge of causality. In other words, very little of the literature explicitly explores the conditions under which activities or institutions along particular pathways will have their desired effects.

In the remainder of this section, we work inductively from our review to offer preliminary propositions for addressing areas identified above where more work is needed.

While some of the propositions made below were anticipated in the Bernstein and Cashore (2000) study around which this review was organised, recent research and evidence suggests important modifications.

Pathway 1: international rules

International agreements affect domestic policy to the extent that they create binding obligations on states through international law. This proposition reflects a standard view of how international law works. We saw evidence of it in the case of the United States–Peru Trade Promotion Agreement and in examples from CITES. This proposition is a baseline, however, in the sense that the large literature on compliance and effectiveness suggests that implementation and compliance are dependent on a range of further conditions. Notably, owing to the lack of international forest-focused hard law, non-forest-focused hard-law instruments, and some soft-law instruments, are having a much greater effect than

one might expect. There is little research, however, on why some instruments have had greater – or have the potential to have greater – impacts than others. It is therefore difficult to draw firm conclusions on whether particular initiatives – such as REDD+ – are likely to have a greater policy impact than existing instruments.

Transnational and/or domestic coalitions for change can activate rules in cases of non-compliance. Rules can be become a resource on which transnational and/or coalitions of domestic actors can draw when governments do not comply, although the ability to mobilise may vary between domestic settings. When mobilisation is possible, groups can publicise non-compliance, pressure governments to live up to their commitments, and press governments to launch disputes against other countries that do not fulfil their obligations.

For countries dependent on trade or foreign capital under conditions of increasing globalisation, fear of losing market share and investor confidence acts as an added incentive to comply with international rules. Again, the United States–Peru Trade Promotion Agreement provides good initial evidence for this proposition, since the promise of market access, and the threat posed to it by illegal logging, provided a strong incentive for Peru to sign the deal. Similar dynamics underlie FLEGT agreements. It is also notable, however, that many of the reforms necessary for the United States–Peru Trade Promotion Agreement were already under way before the agreement was struck and could be linked to other pathways and to domestic pressure.

Agreements on international rules with strong compliance mechanisms are more likely when such agreements reflect rules or processes already under way domestically owing to interaction with other pathways. Of all the trade agreements between the United States and Latin American countries, the only one with strict rules on forests involves Peru, which had initiated reforms in the early 2000s in advance of the treaty.

Pathway 2: international norms and discourse

While much of the literature suggests that international norms and discourse have significant influence, little of it addresses why or how particular discourses or norms have been internalised into policy and behaviour. Therefore, the propositions below are suggestive, drawing as much on the theory-based literature as on examples in forestry. For example, they are consistent with Keck and Sikkink's (1998) argument that 'dynamic' factors in domestic politics – such as how proposals for change 'fit' with other related policies, the changing positions of government, and the dominant ideologies or cultural discourse and practices – better account for the success of transnational campaigns for change. It is also clear from evidence that the learning gained through United Nations conferences and processes as well as through participation in other international organisations has played a role in the dissemination of forest-related international norms and that governments have taken their cues from these processes.

Dominant norms agreed to in international forums and promoted by powerful independent observers such as the World Bank are likely to be drawn upon by governments facing external pressures to change policies.

Strategies for change based on international norms and discourse depend on the moral vulnerability of the target state. They also depend on the ability to engage other states and actors in placing the issue on the global agenda, whether by reformulating current norms and ideas or by introducing new ones. Cases in most regions suggest that targeting on moral grounds has been an effective strategy, although it is unclear whether this has resulted in long-term, or the institutionalisation of, policy change.

Pathway 3: markets

Relative dependence on foreign markets and the success of transnational actors in convincing consumers to exercise consumer preferences are key determinants of policy influence. Boycott strategies give the appearance of short-term success, but long-term efforts require more enduring forms of non-state authority, such as certification.

Hence, the durability of policy responses is conditioned upon maintaining transnational pressure. All things being equal, if pressure is not maintained then 'downward' measures in response to globalisation are likely.

Normative changes in response to such pressures alone are unlikely. In almost all cases, significant institutionalisation of change that reflected new forest-related norms has resulted from pressures or activities along a number of pathways and not from boycotts alone.

Pathway 4: direct access to the domestic policy process

Our review generally found three ways in which the international forest regime influences the domestic policy process through the direct access pathway. One was through the provision of financial resources to assist existing civil-society organisations or to help create new organisations. These efforts can help shift the balance of power in domestic policy processes and provide access to often marginalised or disempowered organisations, such as indigenous groups, forest-dependent communities and environmental NGOs. However, broader questions of democracy, transparency, openness and accountability are prerequisites for the successful use of this strategy. Meeting such preconditions may take time, since they are not sector-specific.

We uncovered two other strategies that were not envisioned by Bernstein and Cashore (2000). *Direct influence on the domestic policy process can result from international efforts to build cross-stakeholder learning about how policy interventions may yield better environmental, social and economic performance on the ground.* The effects of this policy learning arise when it uncovers win–win opportunities that previous hostilities prevented from emerging (Sabatier 1999; Hall 1993).

Policy learning is likely to have influence when it addresses specific questions that improve forest management practices rather than larger issues, such as economic demands to convert natural forests to plantations.

Finally, an underexplored strategy that has gained increasing interest among a wide range of international and domestic practitioners concerns efforts to help governments to enforce or implement their own laws. The potential for impact with this strategy is significant because – unlike other strategies – it reinforces the policy objectives of the national government which, owing to a lack of capacity and resources, it is unable to enforce or implement. Thus, *direct access through enforcement/implementation strategies are likely to yield swift and immediate results, as long as international actors and organisations do not add additional requirements to which the domestic government does not agree.*

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8 Conclusions

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8.1 Introduction

International forest governance today is complex, fragmented and producing mixed results. On the one hand, there is increasing awareness of the threats to forests and numerous efforts have emerged at all levels that attempt to address these threats. Sustainable forest management has maintained a place on the international agenda since the United Nations Conference on Environment and Development (UNCED) was held in Rio de Janeiro in 1992. The Non Legally Binding Instrument on All Types of Forests has been struck. The many other elements of the international forest governance architecture continue to proclaim the critical importance of forests and the international community spends billions of dollars annually on regional, national and local programmes for sustainable forest management. Nevertheless, the world is still losing an estimated 13 million hectares of forest per year; this is only the most obvious symptom of the fact that, not withstanding the growth of awareness and initiatives, international forest governance is struggling to meet a number of significant contemporary challenges.

This report has argued that instead of asking how international forest governance can be restructured into a simplified top-down regime, reformers should embrace complexity as a necessary feature of governance arrangements. Actors must be prepared to live with a certain degree of fragmentation as the price for maintaining complexity and coverage. The task of governance reform is to ensure the development of more synergistic and cooperative relationships between the components of the governance arrangements even as the challenges become more urgent and intense.

First among these challenges is the demand for agricultural commodities and timber, which will continue to increase as the world population grows and becomes wealthier. By 2050 the world population will be 9 billion; feeding them in the face of climate change and economic and financial crises will increase the pressure on forest lands worldwide, especially if agricultural productivity is not increased (FAO 2009). Under a 'business as usual' scenario it is estimated that around 60% of tropical forest could be at risk of deforestation over the long term (Terrestrial Carbon Group 2009). International forest governance arrangements that continue to support the implementation of sustainable forest management are an important part – but only a part – of the larger picture. Improvements in agriculture productivity and more sophisticated land-use management systems that account for the cumulative impacts of all uses are also important and must somehow be accommodated within the larger governance arrangements.

Some have argued that nothing less than a paradigm shift in the way land is used and commodities are produced will address these challenges. International forest governance has certainly shifted over time to address emerging priorities, many of which have been hailed as this elusive new paradigm. Such priorities have shaped – and reshaped – the view of forest policy, changing it variously from a 'commodity issue' to, among others, a 'biodiversity issue', a sustainable development issue' and 'a human rights issue'. As a result, international forest governance is now connected with human well being, both for forest and non-forest dwellers; international trade; human health; economic growth and development; natural resources and ecosystem health; and human security (Chapter 2).

But this re-shaping has not been transformative. The older paradigms have not disappeared, often because they provide benefits for and are supported by powerful interests (chapters 3 and 5). Instead, the new goals and priorities, and the instruments associated with them, have been stacked on top of each other in a process known as layering. With layering comes drift, in which goals and instruments designed for earlier and different contexts are allowed to survive unmodified in the new era, with increasingly unpredictable but usually sub-optimal consequences (Mahoney and Thelen 2010; Streek and Thelen

2005). Layering and drift are among the most common causes of fragmentation (Chapter 6).

For this reason, despite the many serious challenges facing international forest governance, this report does not call for another paradigm shift, which would simply add another layer to the existing governance arrangements. It is certainly important to match the complexity of the governance arrangements to the complexity of the problems and to manage, rather than seeking to eliminate, complexity. However, embracing and managing complexity will be made more, not less, difficult if yet more high-level goals and instruments are added to the governance architecture.

Rather, this report draws on a growing body of literature that emphasises the importance of progressive incremental change supported and directed by policy learning (Cashore and Howlett 2007). A series of small steps, if undertaken in a consistent and intentional direction, will, over time, add up to a significant degree of policy change. Progressive incremental change is easier to manage, less likely to result in layering and drift, and much more capable of delivering viable new governance architecture than the adoption of whatever 'big idea' is currently capturing the imagination of the forest policy community. The governance challenge is thus how to ensure that these incremental steps are progressive and lead in a desired direction, rather than the aimless series of disjointed and counterproductive steps that is, all too often, the consequence of fragmentation.

The key driver of progressive incremental change is policy learning, which is "a deliberate attempt to adjust the goals or techniques of policy in response to past experience and new information" (Hall 1993: 278). The policy learning required here is known as instrumental learning, in which evidence about the effectiveness of particular policy instruments is constantly monitored and updated, resulting in continuous incremental change in instrument mixes and settings. This kind of iterative updating is not fortuitous but "the result of analysis and/or social interaction" (Radaelli 2009: 1147). Where the context is one of complex problems and multiple institutional intersections, as in international forest governance, special emphasis will need to be put on learning about improved institutional configurations, intersections and instrument mixes (Cashore and Galloway 2010).

The current set of international forest governance arrangements is not well placed to promote instrumental learning of this kind. There is a gap between the high-level, state-centred negotiations that have contributed to treaty congestion and the stalemate that has formed in recent months in key parts of the regime complex and the huge variety of local, national and regional efforts to improve forest conditions and livelihoods on the ground (Hoogeveen and Verkooijen 2010). High-level negotiations have a central place in international forest governance, not least because they allow the development of the norms and values that provide the 'compass' for governance – that is, the direction in which the actors agree to move. However, the hopeless attempt to *compel* movement in a desired direction has absorbed the energy of negotiators and incited further demands for greater centralisation and top-down coordination at exactly the time when non-state actors of all kinds have become more prominent.

An unbalanced focus on state-centred negotiations alienates non-state actors. States are no less important today than they were in the past, but they are no longer the only group of actors that takes part in forest governance (Chapter 1). Now that issues have multiplied and the interconnections among them have grown more complex (Chapter 2), other actors, including international organisations, private-sector corporations, civil-society organisations and consumers, are all central players in the design and implementation of forest policy.

This heterogeneous group of actors has resisted top-down coordination by legally binding rules. Some actors have created parallel processes of standards-setting, stakeholder engagement and forest management from which important lessons can be learned. However, the prevailing atmosphere of competing governance modes, clashing values and alternative management systems makes it hard for anyone to admit to the inevitable mistakes and failures that are often the most important inputs into adaptive management and policy learning (Armitage et al. 2007; Dodgson 1993). If instrumental learning is to take place successfully, reformed international forest governance arrangements need to bridge the wide gaps that have opened up between high-level negotiation on one side of the divide and experimentation on the ground on the other.

This report concludes with suggestions for bridging the gaps from both sides of the divide. On the side of high-level negotiation, we join the call for a new kind of international forest diplomacy, one better adapted to the realities of complex and fragmented governance. On the other, we propose a new kind of learning architecture that harnesses the extraordinary energy and commitment of individuals and organisations working to improve forest livelihoods and conditions on the ground. Underpinning both these suggestions is a broad vision of forests: the services that they provide, their interactions with other ecosystems and policy sectors, and the complex socio-economic linkages that drive human-induced forest change. For reasons that will become clear in the following section, we call this broad, all-round vision of forests 'forests+'.

8.2 Forests+: the lessons of the climate change debates

There is now widespread recognition that forests are critical components of global climate change mitigation and will require careful attention in the development of national climate change adaptation strategies. The priority that the international climate change regime now gives to the role of forests has generally been welcomed by traditional forest governance actors. Key climate change instruments, such as the United Nations Framework Convention on Climate Change (UNFCCC), together with the Kyoto Protocol and its mechanisms, are now considered central parts of the international forest regime complex (Chapter 3). The prospect of an infusion of new money for projects to reduce emissions from deforestation and forest degradation (REDD) further raised enthusiasm for exploring the intersection between forests and climate change, to the point where there was a danger that other functions of forests would be neglected. REDD threatened to become a classic example of another 'big idea' that added a new layer of complexity to international forest governance without producing corresponding gains in coherence or consistency (Chapter 6).

However, as REDD became a key plank of global climate change mitigation policies, the scale of the governance problems raised by REDD were quickly revealed. As noted in Chapter 2, REDD was part of a trend away from attempts to regulate behaviour directly towards market-based instruments designed to provide incentives by attaching monetary values to socially desirable goods. As such, REDD quickly ran into the difficulties posed by the need to safeguard the many social and environmental values of forests that are currently not well-expressed in monetary terms. And, as discussed in Chapter 5, REDD opened up fundamental conflicts about the meaning of a 'forest', including the long-running debate about the relative merits of natural and planted forests.

At the same time, the potential role of REDD in international emissions trading schemes (the existence of which is further evidence of the popularity of incentive-based instruments) remained very much in question. The problems posed by the measurement of forest degradation and by the need to set baselines for avoided deforestation dogged REDD from its inception and contributed to a marked lack of progress in recent negotiations. It became clear that, for progress to be made at all, negotiating parties needed to 'step back' and take a larger view of the role of forests in mitigation strategies; thus, REDD+ – which goes beyond simply addressing deforestation and forest degradation to include forest conservation, the sustainable management of forests and the enhancement of forest carbon stocks – was born. As described in Chapter 3, REDD+ has contributed to the dissolution of REDD into a heterogeneous set of projects, policy initiatives and funding mechanisms. The multilateral mechanisms that have been established, including the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, the Forest Carbon Partnership Facility, the World Bank's Forest Investment Programme and the REDD+ Partnership, exist alongside loosely coordinated national, bilateral and private efforts. The latter are likely to survive even if REDD+ fails to become part of a global emissions trading scheme.

The trajectory from REDD to REDD+ illustrates many of the themes of this report. In particular it is clear that, in international forest policy, dispersed local knowledge, scientific uncertainty, value conflicts and the creative responses of policy actors to each new round of policy interventions all combine to create the open-ended 'wicked' problems described in Chapter 1. Making progress towards solving these problems requires replacing the outmoded idea of arriving at and enforcing an optimal solution by closer attention to sequential trial and error that focuses on "the processes that generate policy innovations and spread them over jurisdictions" (Kerber and Eckardt 2009: 228). From this latter point of view, complexity and diversification create more trials and hence more possibilities of success and failure, introducing an evolutionary logic to policy learning.

Forests+ is simply the next step on this trajectory. It is an attempt to create a governance framework that captures all forest values and cross-sectoral linkages and ensures that they are considered in decisions about forest policy and management. To do so, forests+ must encourage the widest variety of frames and discourses (Chapter 4) about forests. Forests+ would also promote experimentation and provide a safe and trusted arena in which failures, as well as successes, can be discussed freely and lessons learnt. It would also coordinate the complex elements of the governance architecture over multiple levels, both vertically and horizontally.

8.3 A new diplomacy for global forest governance in an era of forests+

A forests+ diplomacy consists of the following five building blocks.

8.3.1 Appropriate scale and subsidiarity

International forest governance has been too focused on the global level. The recognition that not everything can be resolved within the United Nations system has two implications for a new model of international forest governance. First, while not all issues can be resolved within the United Nations, some issues certainly can; possibly, certain issues can *only* be resolved from there. Second, it implies that the first step in the forests+ diplomacy should be to determine the most appropriate level of discourse and action in a system of multi-level governance. As argued in Chapter 6, all actors should commit to exploring the principle of subsidiarity in an effort to find these appropriate levels.

8.3.2 Coordination by learning

International forest governance has evolved into something far more complex than it was even a few years ago. The proliferation of arenas in which forest governance is being discussed has already led to significant problems of overlap, ambiguity and duplication (Chapter 2). While multiple arenas provide the ability to experiment, they also require a system of inter-arena coordination. In the first instance, this coordination function should be built primarily on information instruments; later, it should be built on a mix of information and incentives (chapters 6 and 7).

8.3.3 Intelligent stakeholder participation

For forests+ to be implemented effectively, new and innovative ways of thinking are needed on what 'participation' in international forest governance really means for different actors. A critical determinant of success for more effective international forest governance is to invest in a new diplomacy that allows multiple opportunities for actors to be involved at the levels at which they have most competence. Our proposition is not to categorically exclude some actors from global diplomacy. Nevertheless, we should depart from the widely shared notion that 'all relevant stakeholders' should be involved in all policy decisions. More participation is not always better, and multidimensional models of stakeholder engagement are now widely available that can be tailored to specific policy needs in complex environments (Fung 2006).

8.3.4 Policy instruments: a portfolio approach

The governance challenge for the future is not one of negotiating a new super-instrument but of coordinating multiple existing and future initiatives. A range of both hard-law and soft-law instruments, with an immediate emphasis on the latter, is likely be a more effective approach to governance than a single comprehensive hard-law instrument. Such a portfolio approach could involve the use of a combination of initiatives to raise financial resources, increase knowledge, develop capacity, generate public support and raise awareness for effective global action on forests (Hoogeveen et al. 2008). To be effective, such an approach must be combined with experimentation and learning in a constantly evolving adjustment to new conditions.

8.3.5. Leadership by policy entrepreneurs

It is sometimes argued that what is ultimately lacking in international forest governance is 'political will', a claim usually associated with a strong belief in a single, optimum solution to forest problems that only needs to be imposed on everyone for its merits to become unassailably clear. What is really missing, however, are policy entrepreneurs, leaders who "work from outside the formal governmental system to introduce, translate, and implement innovative ideas into … practice" (Roberts and King 1991: 152). They are missing largely because the increasingly formal structures of diplomatic negotiation have little place for policy entrepreneurship. As a result, much of the policy innovation that has actually taken place in international forest governance has been at the margins, with non-governmental organisations (NGOs) in the lead. A new diplomacy would be incomplete without finding a home for policy entrepreneurship and more research is needed on the kind of governance structure that would welcome policy entrepreneurs and encourage their work.

8.4 A new learning architecture for forests+

The other main thrust of governance reform is to encourage the conditions under which experimentation and trial and error actually lead to policy learning and improved outcomes. In the first instance, this task is best performed by de-emphasising both regulatory and incentive instruments in favour of information. In the longer term, as this report has emphasised, the goal is to find creative instrument mixes with proven effectiveness on the ground (Chapter 7). The choice of these instrument mixes, in which regulation, incentives and information are mutually supportive, will be based on a clear understanding of the incentives that they provide and the likely strategic reactions of actors to those incentives. At present this knowledge is lacking, except in piecemeal and local instances, and the immediate task is to build a learning architecture that can provide it.

The new learning architecture will need the following components.

A more comprehensive approach to knowledge management

Policy learning through trial and error requires a comprehensive clearing-house mechanism for forest-focused and forest-related research. These clearing houses often exist at national and regional levels (the Association of South-East Asian Nations (ASEAN) Forest Clearing House Mechanism is a particularly strong example of the latter that could be drawn on as a model; Goehler and Schwaab 2008). A number of international organisations, especially those with explicit research mandates such as the International Union of Forest Research Organizations and the Center for International Forestry Research, can also provide insights. The challenge here is largely a technical one involving high-level commitments to support the imaginative use of appropriate information and communication technology, much of which is already in place at the national level as part of a general trend towards digital government.

A networked approach to learning

Improved knowledge management does not necessarily lead to learning, however. To ensure learning, processes are needed for identifying policy-relevant knowledge (as well as knowledge gaps) and for communicating that knowledge and translating it to ensure that it is relevant in different contexts. The core ideas of support for and bridging between knowledge generation and knowledge use lead to the concept of a learning platform – defined as an integrated set of services that provide information, tools and resources to support policy learning. As the ASEAN experience has shown, in addition to the technical challenge of creating a clearing house, learning platforms need to bring together the bottom-up tools of inter-organisational network management and the top-down impetus provided by access to key decision-making and coordinating bodies (Chapter 6).

From one side, then, forest policy learning platforms will be built on a wide variety of existing and future networks, the members of which need to trust the platforms and their organisational structure (Borgatti and Cross 2003; Bessant and Tsekouras 2001). As argued in Chapter 7, the most successful examples of these networks are those organised at appropriate scales around a particular problem. A problem-focused approach is an important part of the motivation for network membership and participation and provides the opportunities for coalition-building that provides political support for solutions (see 8.1). These networks survive and prosper by meeting the needs of their members and, to the extent that they are learning networks, by doing the work of knowledge generation, communication and translation (Knight 2002; Lin 2005). The extent to which they are the essential building blocks of a global learning platform cannot be overemphasised. The key to successful governance is to coordinate and support their activities rather than to attempt to direct them.

Improved network management

Nevertheless, there are a number of reasons why we do not expect the learning platforms to be built completely from the bottom up. First, the theory of inter-organisational networks stresses the importance of trust between network members as a key requirement for shared network management (Provan and Kenis 2007). Given the history of conflict between and parallel development of NGO and state-led forest networks, we expect that, initially, trust will be low. Creating the circumstances in which these disparate networks will be willing to share knowledge and to trust the source will take time. At the outset, a lead organisation or a specialised network administrative organisation will be required and the key question is whether to create a new organisation or to add this responsibility to the mandate of an existing organisation.

Second, as already noted, the policy learning literature emphasises the critical role of policy entrepreneurs in promoting policy innovation (Mintrom 1997). Entrepreneurship in this context means not only being alive to the possibilities of new ideas but also building trust in the competence of a learning platform and its ability to deliver successful outcomes. As noted in Chapter 4, we know little about the conditions under which this kind of leadership flourishes.

Box 8.1 UN Global Compact

The UN Global Compact was launched in 2000 as a voluntary initiative that seeks to advance ten universally accepted principles in the areas of human rights, labour environment and anti-corruption. It is a public-private initiative and a strategic policy platform/framework for companies endorsing sustainable development and responsible business practices. All participants have to align their operations and strategies with the ten principles.

It has 2 objectives:

- Mainstream the ten principles in business activities worldwide
- Catalyse actions in support of broader UN goals, including the Millennium Development Goals

The Global Compact aims at involving all relevant social actors: companies, whose actions it seeks to influence; governments, labour, civil-society organisations. The UN acts as facilitator and the UN agencies involved are working with Global Compact on their specific issues. Currently, about 8000 participants have joined the initiative, including over 5300 businesses in 130 countries.

Global Compact works at global, regional levels, local levels creating networks around the world in order to share best and emerging practices, access knowledge and experience with sustainability issues and utilise tools and resources.

The UN General Assembly and other intergovernmental platforms, including the G8, support Global Compact and recognise its work and outcomes in relevant documents.

The UN Global Compact has many features of a policy-learning platform. It provides open access to all actors and links relevant sectors. The initiative also creates networks/platforms at all levels, promoting problem based policy learning. While Global Compact does not intend to develop national or international policies per se, it allows the discussion of respective policies and instruments. UN bodies are coordinating the linkage of Global Compact work with other global policy fora.

Finally, the experiences of both ASEAN and the European Union suggest the importance of access to the fora where decisions are taken and policies are made. Networks are not an end in themselves and the network literature emphasises that the most productive networks are embedded in traditional hierarchical organisations with the authority to take and implement decisions (Agranoff 2006; Hill and Lynn 2005). While learning platforms are needed, we emphasise that what is missing from current arrangements is not so much the capacity to generate knowledge as to communicate and translate it. Direct access to decision-makers may be one route; another may be access to those whose voice carries weight for other reasons (see Box 8.2).

Better use of e-governance tools

The final component of the new learning architecture will be the use of networked technologies as governance instruments. The lead organisation mentioned above can improve both network participation and coordination by the creative use of information and communication technologies for the coordination and 'reintegration' of fragmented responsibilities (Dunleavy et al. 2005; Margetts 2009). Web presence has become increasingly important for the credibility and effectiveness of actors in international forest governance and much can be learned from the way in which they have contributed to the legitimacy and authority of each other by linking content from their websites.

Because of network effects, trusted nodes in information networks quickly rise to dominant positions by exploiting the tendency of new members to engage in preferential rather than random attachment when they join the network (Barabási 2000). Preferential attachment explains the (literally) exponential success of sites such as Facebook and Google and the struggles that national governments have had in competing for attention on the web. Preferential attachment can create distinctive virtual policy networks (VPNs), which are "web-based issue networks that are structured through the hyperlink connections of websites containing content on a specific policy topic" (McNutt 2010).

Preferential attachment also creates the phenomenon known as nodality, which is "the property of being in the middle of an information or social network" (Hood and Margetts 2007: 3). E-governance is simply the instrumental use of nodality and the authority that it confers to engage in the classic activity of governance: that is, coordination to shape outcomes. To the traditional use of web-enabled learning platforms to evaluate information, transfer knowledge and promote policy learning is thus added the ability to shape policy debates by structuring alternatives and connecting actors and organisations who may be widely dispersed geographically and ideologically. Nodal actors have greater access to

Box 8.2 United Nations Secretary-General's Advisory Board on Water & Sanitation (UNSGAB)

The UNSGAB was established by the Secretary-General in 2004 with the intention to galvanise global action and sanitation issues. Its mission is to give advice to the SG, give input in global dialogue process, raise global awareness, influence global, regional and national institutions at highest level, and to take action towards the Millennium Development Goals (MDGs).

UNSGAB's main objectives are to:

- Mobilise resources for water and sanitation
- Mobilise public support
- Assess progress
- Advocate for improving the capacity of governments and the international system

The Board is composed of individuals, who are dignitaries and high representatives from politics, financial institutions and research institutions.

The main policy tool is the Hashimoto Action Plan launched in 2006. It identifies actions for key players ("Your Actions") and work for UNSGAB ("Our Action") in cooperation with these players and in removing obstacles impeding achievement of internationally agreed targets. It is seen as a global work plan for advancing progress towards the MDGs.

UNSGAB members are using their influence and knowledge to fulfil their Actions, while continuing to pressure international stakeholders. Activities are mainly focusing on promoting the issue in different fora and institutions as well as its inclusion in documents and related policies. UNSGAB specifically aims at influencing high-level decision-makers.

The general goal to facilitate global action on a rather complicated and cross-sectoral issue of high social relevance is similar to the forest issue and the intentions of forest+, but UNSGAB currently lacks some features of a policy-learning platform. Specifically, there is neither open access for all actors nor participation from actors from all relevant sectors. While UNSGAB tries to influence ongoing policy development and implementation, it is currently a high-level inter-sectoral lobbying group rather than a policy-learning platform.

the resources of the network, more opportunities for information exchange and the creation of trust, and an enhanced ability to control the way in which information flows through the network.

Successful e-governance will only be possible if the organisation or organisations that undertake network management and other coordination activities achieve and maintain nodality in the global forest policy web. In this respect the situation is promising because nodality is currently shared by the websites of a small number of international organisations and governments, the latter including the European Union; together they form the backbone of a VPN (McNutt and Rayner 2011). The major weakness of this VPN is the almost complete absence of links to and from NGO websites, which are organised in separate issue networks; this situation mirrors the divide in face-to-face networks. An emphasis on a more problem-focused approach to governance may pay dividends in e-governance by leading to the development of a more inclusive VPN.

8.5 Institutional change

The formulation of specific recommendations for institutional change in international forest governance is beyond the terms of reference of this report. Nevertheless, it is useful to summarise the key functions than a lead organisation or system of collaborative governance will need to perform. Such an organisation or system should:

- Support the principle of subsidiarity in decision-making as described in Chapter 6. High-level diplomacy should be applied only to problems that require goal-setting at this level. As concluded in Chapter 2, regional and non-governmental processes have provided critical pathways for bypassing stalled international negotiations. A new organisation needs to work with this dynamic rather than against it.
- Be committed to supporting problem-focused evolutionary learning (Chapter 7). It should be capable of providing the open, deliberative arenas called for in Chapter 4 in which very different forest discourses can co-exist. It must be capable of undertaking network management at a global level and supporting the learning platforms described in this chapter.
- Have an all-round forests focus and act as a champion for improving conditions and livelihoods in all types of forests. It should acknowledge the

Figure 8.1 The global forest policy VPN (McNutt and Rayner 2011)

existing integration of the language of sustainable forest management into the major instruments of international forest governance and the work already under way to produce indicators of improvement in varying contexts (Chapter 5). Intelligent engagement with other actors outside the professional forestry community and openness to other discourses is necessary if sustainable forest management is to serve a coordinating function with other sectors in support of forests+ (Chapter 3).

- Have a strong mandate to coordinate forest-related activities wherever they may take place. As noted in Chapter 2, forest-related processes have generally failed to generate adequate cross-sectoral communication and collaboration among the full range of actors who are driving forest change.

These requirements present a daunting challenge and it is possible that no single organisation can meet them all. Nevertheless, it is our hope that the information provided in this report will start the process of re-imagining international forest governance.

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Appendix 1: Preparatory study for the CPF Expert Panel on the International Forest Regime

Overview of international policy instruments related to forests and their goals and tools

Christoph Wildburger

15 December 2009

Revised and updated on the basis of comments by members of the CPF Expert Panel on the International Forest Regime

Contents

1 Introduction

In October 2009 the Steering Committee of the Collaborative Partnership on Forests (CPF) Global Forests Expert Panels approved the establishment of the Expert Panel on the International Forest Regime. According to its terms of reference, this expert panel is to "carry out a comprehensive assessment of available scientific information about the international forest regime and to prepare a report for use by the UNFF [United Nations Forum on Forests] at its ninth session, and also by the CBD [Convention on Biological Diversity] and other forest-related international processes". More specifically, the assessment is to cover the following main thematic components:

- An overview of the political actors, policy instruments and institutions, and their forest-related goals and activities ('mapping').
- An overview of the shifts in actors, instruments, institutions and discourses related to forests since the United Nations Conference on Environment and Development (UNCED), which was held in Rio de Janeiro in 1992.
- The identification of different interpretations of sustainability with regard to forests, such as sustainable forest management (SFM), and their influence on the choice of instruments.
- The identification of the core components of the international forest regime and of the key instruments (the 'meta-regime'), including the comparative roles of legally and non-legally binding instruments.
- A scientific assessment of the contribution of existing international policy instruments within the core components to meeting global forest-related goals; synergies and conflicts among them; potentials and gaps; and impediments.
- An examination of the influences of the international forest regime at the domestic level – lessons learned (including the identification of different pathways, such as certification).
- Options for improving the outcomes and impacts of the international forest regime.

On the basis of these provisions the Secretariat of the International Union of Forestry Research Organizations (IUFRO) commissioned this preparatory study. The aims of the preparatory study are to identify the policy instruments relevant to the international regime on forests, compile information on the main characteristics of those instruments, and provide an overview of their forest-related goals and tools for further analysis. In general, the purpose is to support the initial discussions of the Expert Panel on the International Forest Regime by providing a structural framework for the background information essential for analysis of the international forest regime. Within the limited time available for preparing the study, the strongest possible efforts have been made to ensure that the overview of instruments, goals and tools is as complete as possible.

2 Methodological approach

Unless otherwise indicated, information for this study has been drawn from documents released by the institutions that administer the various instruments (usually obtained from their websites, which are listed at the back of this report). Existing compilations of instruments, especially that of McDermott et al. (2007), have been used as a basis for the analysis, updated and complemented according to recent developments. Other relevant scientific literature has also been used.

The study involved the following methodological steps:

1. Selection criteria for intergovernmental instruments relevant to the international forest regime were developed, taking into account the terms of reference of the expert panel.
2. Relevant policy instruments at the global and regional levels were identified according to the selection criteria and were categorised.
3. The relevant structural characteristics of the selected intergovernmental instruments – legal status, year of commencement, the number of participating countries, and geographical scope and institutional structure – were compiled. Not all this information was available, especially for regional-level instruments.
4. Based on available sources the selected instruments were analysed and forest-relevant policy goals and the policy tools identified. Institutional, organisational and structural linkages between instruments and tools were outlined.
5. International instruments involving non-governmental actors as well as current initiatives that may lead to the development of relevant instruments (e.g. REDD) were identified and compiled.

To enable the development of a transparent overview in the short time available for this preparatory study, international agreements and processes are labelled as *instruments*, whereas the mechanisms connected to them are referred to as *tools*. However, in the forthcoming detailed analysis by the expert panel, a more nuanced stratification using respective policy theory might prove useful (see also Howlett 2009).

For the purposes of this study, international instruments have been categorised according to institutional type as either *intergovernmental* or *non-governmental*. The intergovernmental instruments

have been further categorised according to their geographical scope as either *global* or *regional*, as well as according to their legal status as either *legally binding* or *non-legally binding*. The term international is usually used when it is unnecessary to distinguish between global and regional instruments.

2.1 Selection criteria

The international community has never agreed on a single mechanism to govern international forest policy. Over the years an array of instruments of considerable complexity has developed in response to evolving challenges, mainly connected to social and environmental aspects of sustainable development (see also McDermott et al. 2007). The lack of cross-sectoral coordination has resulted in an increasingly fragmented forest agenda at the international level.

A wide range of international instruments – intergovernmental agreements, processes and multilateral institutions, as well as non-governmental initiatives – potentially influences forest policy, either directly or indirectly. A complete compilation and assessment of all multilateral instruments and related activities is not feasible within the time available for this study. Therefore, a selection of key instruments that shape the international forest regime was made.

A systematic approach to the selection of relevant instruments is essential for an analysis of the shifts that have taken place in the instruments, actors, institutions and discourses of the international forest regime. The following criteria are therefore proposed for the selection of relevant instruments for analysis. They were chosen based on the relevance of the instruments in regard to access to and the management and protection of forest resources, the number of countries involved, the geographical scope of the instrument, and its legal status.

The proposed selection criteria for governmental instruments are as follows:

- The instrument is based on an intergovernmental agreement between at least three countries recognised by the United Nations.
- The geographical scope of the instrument covers at least three countries recognised by the United Nations.
- The instrument refers to forests in agreed documents and tackles issues related to access to, and/or the management of, and/or the protection of forest resources.

The proposed selection criteria for non-governmental instruments are as follows:

- The geographical scope of the instrument covers at least three countries recognised by the United Nations.
- The instrument refers to forests in agreed documents and tackles issues related to access to, and/or the management of, and/or the protection of forest resources.

In addition to the above criteria, reference is made in this preparatory study to global legally binding instruments that govern the use of natural resources in general or trade in products derived from them, if they have a:

- membership of at least 50 country parties; and a
- membership of the majority of the world's top ten countries in terms of forest cover and value of forest product trade.

Instruments that do not refer to forests and tackle forest-related issues but which might have the potential to influence forest policy are listed separately by name but are not analysed further. Due to the short time available for this preparatory study, not all documents of the various instruments could be obtained in English. Therefore, some instruments might need to be reassessed and possibly shifted into other categories.

3 Global-level intergovernmental instruments

At the global level, eight legally binding instruments and one non-legally binding instrument were identified on the basis of the proposed selection criteria.

3.1 Legally binding instruments referring to forests

3.1.1 International Tropical Timber Agreement

The International Tropical Timber Agreement (ITTA) is the only global legally binding agreement focusing only on forests and the trade of forest products. The scope of the ITTA is tropical forests and tropical timber trade. Signatories are delineated into two broad categories – producer and consumer countries – on the basis of their focus on the production or consumption of tropical timber. The first ITTA, adopted in 1983, was superseded by a second ITTA in 1994. The most recent ITTA was adopted in 2006

and will enter into force if twelve governments of producer member countries holding at least 60% of the total votes, and ten governments of consumer member countries accounting for 60% of the global import volume of tropical timber, have ratified the agreement. It is expected that the ITTA, 2006 will enter into force by the end of 2010.

Goals

The objectives of the ITTA, 2006 are "to promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and to promote the sustainable management of tropical timber producing forests" (ITTA 2006, Article I), by various means, including by providing a framework for policy development and international cooperation, research and information sharing.

Forest-related tools

The ITTA establishes the *International Tropical Timber Organization (ITTO)* as the body charged with administering the provisions and supervising the operation of the Agreement. Thus, ITTO develops internationally agreed policy documents to promote SFM and forest conservation and assists tropical member countries to adapt such policies to local circumstances and to implement them in the field through projects. The International Tropical Timber Council is the highest authority of the Organization and consists of all members of the Organization.

According to its mission statement, ITTO "facilitates discussion, consultation and international cooperation on issues relating to the international trade and utilization of tropical timber and the sustainable management of its resource base" (ITTO Action Plan 2008–2011). The Organization's most recent *action plan* encompasses a period (2008–2011) spanning the extension of the ITTA, 1994 and the entry into force of the ITTA, 2006. It builds on Council decisions and is guided by the provisions of the ITTA, 2006.

ITTO has developed the *ITTO criteria and indicators for the sustainable management of tropical forests*, and collaborated with the African Timber Organization (ATO) in the development of the *ATO/ITTO principles, criteria and indicators for the SFM of African natural tropical forests*.

In collaboration with the International Union for Conservation of Nature (IUCN), ITTO developed the *ITTO/IUCN guidelines for the conservation and sustainable use of biodiversity in tropical timber production forests* as a tool for promoting SFM.

Institutional characteristics

There are currently 59 signatories to the ITTA, 1994, with 33 producer members and 26 consumer members. ITTO cooperates at various levels with a wide range of other organisations and instruments, such as the CBD, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the World Trade Organization (WTO), the UNFF and the Association of Southeast Asian Nations (ASEAN). ITTO is a member of the CPF.

3.1.2 United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) is one of three 'Rio Conventions' agreed at UNCED.

Goals

The ultimate objective of the UNFCCC (and any related legal instruments that the Conference of the Parties – COP – has adopted or may adopt) "is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner" (UNFCCC, Article 2).

Forest-related tools

The *Kyoto Protocol* to the UNFCCC addresses forests as sinks for and reservoirs of greenhouse gases; Parties to the Protocol have committed themselves to promoting SFM and afforestation and reforestation. The Kyoto Protocol also defines forestry activities as measures to be accounted for in the greenhouse gas balance of Parties.

The *Marrakesh Accords to the Kyoto Protocol* provide for definitions, modalities, rules and guidelines relating to land use, land-use change and forestry activities under the Kyoto Protocol. The accords also establish specific intergovernmental mechanisms for implementing forest-related activities; these are Joint Implementation and the Clean Development Mechanism.

The COP to the UNFCCC and the Kyoto Protocol adopted several forest-related decisions, including a (non-binding) "good practice guidance for land use, land-use change and forestry (LULUCF) activities" as well as "modalities and procedures for afforestation and reforestation activities". Forest-related

decisions made by the COP to date focus on the contribution of forests to greenhouse gas removals and the accounting systems and methodology needed to ensure carbon sequestration.

In decision 11/CP7* of the Marrakesh Accords, the UNFCCC defines *forest management* as "a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest in a sustainable manner". In general, Parties to the UNFCCC are to be guided by the principle that land-use activities should contribute to biodiversity conservation and the sustainable use of natural resources.

Most recently, reducing emissions from deforestation in developing countries (REDD) has been discussed as a forest-related tool in climate change mitigation negotiations. Information about these developments is provided in a later section of this report.

Institutional characteristics

The UNFCCC was adopted in 1992 and enjoys near universal membership, with 194 Parties. The Kyoto Protocol was adopted at the third COP, which was held in Kyoto, Japan, in 1997; it entered into force on 16 February 2005 and, to date, has been ratified by 192 Parties. The UNFCCC COP is the decision-making body of both the UNFCCC and the Kyoto Protocol. The Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation provide advice to the COP.

The UNFCCC Secretariat is a member of the CPF and cooperates informally with the UNFF and the Food and Agriculture Organization of the United Nations (FAO). The Joint Liaison Group of the Rio Conventions links the UNFCCC with the CBD and the United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (UNCCD). The SBSTA of the UNFCCC and the CBD's Subsidiary Body for Scientific, Technical and Technological Advice (SBSTTA) convened a joint session in 2005.

3.1.3 Convention on Biological Diversity

The CBD was agreed in 1992 and opened for signature at UNCED.

Goals

The objectives of the CBD "are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding" (CBD, Article 1).

The objective of the CBD's Cartagena Protocol on Biosafety is "to contribute to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements" (Cartagena Protocol, Article 1).

Forest-related tools

In 2002 the CBD COP adopted a *strategic plan* in order to guide the further implementation of the Convention. In the mission statement of the strategic plan, Parties committed themselves to achieving, by 2010, a significant reduction in the current rate of biodiversity loss at the global, regional and national levels as a contribution to poverty alleviation and for the benefit of all life on Earth. This *2010 Biodiversity Target* was consequently endorsed by the World Summit on Sustainable Development and the United Nations General Assembly. The strategic plan covers the work of the CBD on all biomes and ecosystems, including forests.

The CBD COP has taken various decisions on forests and forest biodiversity. In 2002 it adopted an *Expanded Programme of Work on Forest Biodiversity* (Decision VI/22) as the main tool for implementing the Convention with respect to forests. This programme consists of three elements: conservation, sustainable use and benefit sharing; institutional and socio-economic enabling environment; and knowledge, assessment and monitoring. The twelve goals, 27 objectives and 130 activities cover a wide range of forest issues. Parties are urged to incorporate relevant objectives of the expanded programme of work into their national biodiversity strategies and action plans (NBSAPs) and national forest programmes. Consequently, the targets have been integrated into the expanded programme of work, the implementation of which has been reviewed by an Ad Hoc Technical Expert Group.

Under Article 6 of the CBD, Parties "shall … develop strategies, plans or programmes" that reflect the provisions of the CBD at the national level. To date, 171 Parties have developed NBSAPs. Parties

* FCCC/CP/2001/13/Add.1, Addendum To the Marrakesh Accords, Dec.11/CP7, Annex: Definitions, modalities, rules and guidelines relating to land use, land-use change and forestry activities under the Kyoto Protocol, pp 56–58.

should also, as far as possible and appropriate, integrate the conservation and sustainable use of biodiversity into relevant sectoral or cross-sectoral plans, programmes and policies – such as national forest programmes. Parties should also provide information on measures taken for the implementation of the Convention and the effectiveness of those measures (Article 26).

In Decision IX/5, the CBD COP referred to the use of *genetically modified trees* and reaffirmed, among other things, the need to take a precautionary approach and to authorise the release of such genetically modified trees only after the completion of studies in containment. Currently, an *international regime on access and benefit sharing* is under negotiation within the framework of the CBD in the Ad-hoc Open-ended Working Group on Access and Benefit Sharing.

In several of its decisions the CBD COP addresses cooperation and synergies with forest-related instruments at the global and regional levels.

Institutional characteristics

The CBD entered into force in December 1993 and has 193 Parties. The CBD COP is the governing body; it advances implementation of the Convention and provides policy guidance through decisions. To date the CBD COP has made a total of 252 procedural and substantive decisions. It is assisted by SBSTTA, which provides advice and recommendations on the basis of scientific, technical and technological information.

The CBD is a member of the CPF, the Biodiversity Liaison Group (comprising the heads of the secretariats of six biodiversity-related agreements – the CBD, CITES, the Ramsar Convention on Wetlands, the Convention on the Conservation of Migratory Species of Wild Animals, the World Heritage Convention and the International Treaty on Plant Genetic Resources for Food and Agriculture) and the Liaison Group of the Rio Conventions. It develops joint work programmes on specific topics, for example with the Ramsar Convention.

3.1.4 United Nations Convention to Combat Desertification

After being discussed at UNCED, the UNCCD was adopted in 1994.

Goals

The objective of the UNCCD is "to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in affected areas" (UNCCD, Article 2).

The UNCCD also states that achieving the objective will involve long-term strategies focusing simultaneously on improved the productivity of land and the rehabilitation, conservation and sustainable management of land and water resources.

Forest-related tools

Under the Convention, Parties may prepare *national action programmes* (NAPs) that should include measures to conserve natural resources, such as by ensuring the integrated and sustainable management of forests. NAPs are one of the key instruments for the implementation of the Convention and are strengthened by action programmes at the sub-regional level (SRAPs) and the regional level. NAPs are developed in the framework of a participatory approach involving local communities and spell out the practical steps and measures to be taken to combat desertification in specific ecosystems. Regional activities are being launched through thematic programme networks.

The *ten-year strategic plan and framework* (2008–18) to enhance the implementation of the Convention guides all the actions of the Convention through strategic objectives and related indicators, some of which refer to forests.

Institutional characteristics

The UNCCD entered into force in 1996 and has 193 Parties. The UNCCD COP is the Convention's supreme decision-making body, comprising all Parties; it oversees the implementation of the Convention. Sessions of the COP are held biennially, alternating with sessions of the subsidiary body, the Committee for the Review of the Implementation of the Convention (CRIC). A second subsidiary body, the Committee on Science and Technology, supports the COP.

The UNCCD is a member of the Joint Liaison Group of the Rio Conventions. Within this framework, it convened, together with the CBD and the UNFCCC, a workshop to explore synergies in the implementation of the three conventions on issues related to forests and forest ecosystems. The UNCCD and the CBD also agreed on a common work programme. The UNCCD is a member of the CPF.

3.1.5 Convention Concerning the Protection of the World Cultural and Natural Heritage

The Convention Concerning the Protection of the World Cultural and Natural Heritage (the 'World Heritage Convention') was adopted in 1972 and is hosted by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Goals

The main goals of the World Heritage Convention are the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage around the world considered to be of outstanding value to humanity (World Heritage Convention, articles 2, 4 and 5).

Forest-related tools

The Convention establishes the World Heritage Fund, which provides international assistance, and the World Heritage Committee, which maintains the World Heritage List and the World Heritage in Danger List. The *Operational Guidelines for the Implementation of the World Heritage Convention* include, among other things, precise criteria developed by the World Heritage Committee for the inscription of properties on the World Heritage List and for the provision of international assistance under the World Heritage Fund. The Operational Guidelines make reference to forests and forestry.

The *World Heritage List* contains a number of forested areas and has the potential for many more designations. State Parties to the Convention have the obligation to prepare regular reports about the state of conservation and about the various protection measures put in place at their sites. The World Heritage Committee may decide on specific measures, for example the inclusion of a property in the List of World Heritage in Danger.

Institutional characteristics

The World Heritage Convention entered into force in 1975 and has 187 Parties. The General Assembly of States Parties to the World Heritage Convention meets during sessions of the General Conference of UNESCO and elects members to the World Heritage Committee. The World Heritage Committee has 21 members, who are also State Parties to the Convention, and meets once a year. The Committee is responsible for the implementation of the Convention, the allocation of funds and the inclusion of properties in the World Heritage List. A Bureau of seven members coordinates the Committee.

Three international non-governmental or intergovernmental organisations are named in the Convention as Advisory Bodies to the Committee: they are IUCN; the International Council on Monuments and Sites; and the International Centre for the Study of the Preservation and Restoration of Cultural Property. The World Heritage Convention is a member of the Biodiversity Liaison Group.

3.1.6 Ramsar Convention on Wetlands of International Importance

The Convention on Wetlands of International Importance, especially as Waterfowl Habitat, also called the Ramsar Convention, was adopted in 1971 in Ramsar, Iran. It is an intergovernmental treaty that provides a framework for the conservation and wise use of wetlands and their resources. It is the only global environmental convention that deals with a specific type of ecosystem.

Goals

Under the Convention, Contracting Parties "shall designate suitable wetlands" within their territories for inclusion in the List of Wetlands of International Importance (the keystone of the Convention) and ensure their effective management. They should also work towards the wise use of all their wetlands through national land-use planning, appropriate policies and legislation, management actions and public education; and cooperate internationally concerning transboundary wetlands, shared wetland systems, shared species and development projects that may affect wetlands (Ramsar Convention, articles 2–5).

According to its current strategic plan, the Convention's mission is the "conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world". The "wise use" of wetlands is defined as "the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development". The Convention uses a broad definition of wetlands, which includes forested wetlands such as mangroves.

Forest-related tools

The Convention requests Parties to designate suitable wetlands in their territories for possible inclusion on the List of Wetlands of International Importance. Numerous forested wetlands are included in the List. The scope and focus of the Convention's work is coordinated by means of a strategic plan, which provides guidance to the Contracting Parties and Convention bodies and sets out, in the context of the priority objectives, the actions expected of or

requested by them. The most recent strategic plan, The *Ramsar Convention Strategic Plan 2009–2015*, refers to the integration of wetland policies with national forest programmes and to the strengthening of partnerships with forest-related agreements.

Official Guidelines have been formally adopted by the Ramsar Conference of the Contracting Parties; they cover a range of advice on technical and management issues. *National reports* measure progress in the implementation of the Convention.

Institutional characteristics
The Ramsar Convention came into force in 1975 and has 160 Contracting Parties. The decision-making body of the Convention, the Conference of the Contracting Parties, meets every three years and is supported by a Standing Committee, a Scientific and Technical Review Panel, and a Secretariat. Currently, 1899 sites are designated for the List of Wetlands of International Importance covering about 186 million hectares.

The secretariats of the Ramsar Convention and the CBD have a memorandum of understanding, and joint work plans help to coordinate the work of the two institutions. The Secretariat of the Ramsar Convention also has a memorandum of understanding with the Secretariat of the World Heritage Convention and a memorandum of cooperation with the Secretariat of the UNCCD, and it cooperates with the UNFCCC Secretariat on an informal basis. It is a member of the Biodiversity Liaison Group.

3.1.7 Convention on International Trade in Endangered Species of Wild Fauna and Flora

CITES was agreed in 1973 and entered into force in 1975. It has since been amended.

Goals
The main goal of CITES is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of those species. The Convention regulates the trade of threatened species by their inclusion in one of three appendices. The Parties "shall not allow trade in specimens of species included in Appendices I, II and III except in accordance with the provisions of the present Convention" (CITES, Article II).

Forest-related tools
Numerous tree species are included in the *appendices* of CITES; for example, bigleaf mahogany (*Swietenia macrophylla*), which is of significant timber value, is listed in Appendix II (see also McDermott et al. 2007). *Appendix I* covers all species threatened with extinction that are or may be affected by trade; trade in specimens of such species is permitted only in exceptional circumstances. *Appendix II* lists all species "which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation" (CITES, Article II); other species may be listed in Appendix II if necessary to bring trade in specimens listed in Appendix II under effective control. *Appendix III* includes species "which any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the co-operation of other Parties in the control of trade" (CITES, Article II).

All trade of listed species must be authorised through *a licensing system*. Each Party to the Convention must designate "management authorities" in charge of administering the licensing system and "specific authorities" to advise them on the effects of trade on the status of the species.

A set of *biological and trade criteria*, agreed by the COP, provides the basis for determining whether a species should be included in Appendix I or Appendix II, with the COP making the final decision. Each Party is entitled to make unilateral amendments to Appendix III.

The CITES and ITTO secretariats are collaborating on a *joint programme of activities* aimed at ensuring that international trade in CITES-listed timber species is consistent with their sustainable management and conservation. The project goals are to help countries strengthen their capacities to make non-detriment findings, enhance national legislation and enforcement, and generally ensure the proper implementation of CITES.

Institutional characteristics
CITES has 175 Parties. The CITES COP is the Convention's decision-making body, supported by a Standing Committee, an Animals Committee, a Plants Committee and the CITES Secretariat. The CITES Secretariat is a member of the Biodiversity Liaison Group.

3.2 Other relevant legally binding instruments

3.2.1 World Trade Agreement

The World Trade Agreement (WTA), which establishes the WTO, was agreed in 1995; it focuses on the promotion of global trade liberalisation. The WTA does not refer to forests directly, but it affects the policies of all sectors to a greater or lesser extent.

The WTO has 153 members, including most of the world's top ten countries in terms of forest cover and value of forest product trade (McDermott et al. 2007).

Goals
The purpose of the WTO is to promote global trade liberalisation by requiring national-level changes in trade policy. The WTO is a forum in which governments may negotiate trade agreements and oversee the operation of their rules.

Forest-relevant tools
The WTA has two principal forest-relevant subsidiary tools: the General Agreement on Tariffs and Trade (GATT), and the Agreement on Technical Barriers to Trade (ATBT). The GATT requires Parties to revise their national-level policies to remove discriminatory rules of trade (GATT, articles I, III and XI) with exceptions for, among other things, non-arbitrary and non-trade discriminating measures "relating to the conservation of exhaustible natural resources" (GATT, Article XX(g)). According to its Article 2.4, the ATBT requires Parties to avoid the use of national-level policies to protect domestic industry from competition, and encourages Parties to harmonise their trade policies with global standards (McDermott et al. 2007). WTO rules on intellectual property rights and sanitary and phytosanitary measures may affect forest policies related to invasive alien species, genetic diversity and genetically modified trees. The very strict WTO regulations potentially conflict with restrictions connected to conservation and health.

McDermott et al. (2007) conclude that the assessments of the extent and significance of the role of the WTA and its subsidiary instruments in the framework of legally binding, global forest-related instruments remain controversial. On one hand it is argued that the objectives of the WTA and its subsidiary instruments may conflict with existing and proposed trade-related measures of the global legal framework for forests, particularly CITES and the ITTA. They could also interfere with the certification of forest products and related green-procurement initiatives. One the other hand, both GATT and ATBT provide exceptions for environmental management initiatives.

Institutional characteristics
The WTO is governed by a Ministerial Conference and a General Council, assisted by various thematic councils, committees, working parties and working groups.

3.3 Non-legally binding instruments referring to forests

3.3.1 United Nations Forum on Forests

In October 2000 the Economic and Social Council of the United Nations (ECOSOC) established the UNFF as a subsidiary body. The Forum has universal membership comprising all member states of the United Nations as well as specialised agencies.

Goals
The main objective of the UNFF is to promote "the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end" based on the *Rio Declaration,* the *Forest Principles, Chapter 11* of *Agenda 21* and the outcome of the *Intergovernmental Panel on Forests (IPF)/Intergovernmental Forum on Forests (IFF) processes* and other key milestones of international forest policy (ECOSOC Resolution 2000/35, Paragraph 1).

Forest-related tools
In 2007 the Seventh Session of the UNFF negotiated the *Non-Legally Binding Instrument on All Types of Forests (NLBI),* which was subsequently adopted by the United Nations General Assembly in December 2007. The purpose of the NLBI is to strengthen political commitment and action at all levels to implement the sustainable management of all types of forests and to achieve the shared global objectives on forests; to enhance the contribution of forests to the achievement of internationally agreed development goals, including the Millennium Development Goals, in particular with respect to poverty eradication and environmental sustainability; and to provide a framework for national action and international cooperation.

The NLBI sets out four *Global Objectives on Forests*, which are to: 1) reverse the loss of forest cover worldwide through SFM, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation; 2) enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest-dependent people; 3) increase significantly the area of protected forests worldwide and other areas of sustainably managed forests, as well as the proportion of forest products derived from sustainably managed forests; and 4) reverse the decline in official development assistance for SFM and mobilise significantly increased, new and additional financial resources from all sources for the implementation of SFM. The NLBI also sets out

various measures to be adopted at the national and international levels to achieve its purpose.

The IPF, which was convened from 1995 to 1997, and the IFF, which was convened from 1997 to 2000, both under the auspices of the United Nations Commission on Sustainable Development, were the main post-UNCED intergovernmental fora for international forest policy development. The IPF/IFF processes produced a body of more than 270 proposals for action towards SFM, known collectively as the *IPF/IFF Proposals for Action*. These proposals form the basis of the UNFF Multi-Year Programme and Plan of Action.

Institutional characteristics
The UNFF is guided by a bureau and serviced by a secretariat. Country-led and organisation-led initiatives also contribute to the development of UNFF themes. Informal cooperation links the work of the UNFF to the CBD and several regional intergovernmental processes.

4 Regional-level intergovernmental instruments

4.1 Legally binding instruments referring to forests

According to the chosen selection criteria, eleven legally binding instruments referring to forests at the regional level were selected for analysis. In addition, the forest-related legislation of the European Union (EU) has been taken into account.

4.1.1 Africa

1) Yaoundé Declaration/COMIFAC

The Yaoundé Declaration on the Conservation and Sustainable Use of Tropical Forests, which was signed in 1999 in Yaoundé, Cameroon, by the Central African heads of state, constitutes the basis of the treaty establishing the Central African Forest Commission (COMIFAC). The scope of both the Yaoundé Declaration and COMIFAC is the conservation and sustainable management of forests in Central Africa.

Goals
In the Yaoundé Declaration the heads of state declare: their commitment to the conservation of biodiversity and the sustainable management of forest ecosystems in Central Africa and the right of people to rely on forest resources; their support for the need to reconcile economic and social development with biological diversity conservation; their interest in the establishment, by the international community, of an international mechanism for financing a trust fund to support the sub-region's efforts to manage, conserve and conduct research on forest ecosystems; and their support for and solidarity with the Sahelian countries of Central Africa in controlling desertification.

Forest-related tools
To facilitate the implementation of the commitments laid down in the Yaoundé Declaration, COMIFAC was established in 2005 under the *Treaty on the Conservation and Sustainable Management of Forest Ecosystems and To Establish the Central African Forests Commission*. COMIFAC decides on, directs and coordinates subregional initiatives and actions pertaining to forest ecosystems in Central Africa; its aim is to encourage the conservation and sustainable management of forest ecosystems in Central Africa. Signatories commit to comprehensively addressing issues of policy harmonisation and coordination as well as cooperation regarding conservation and SFM. The provisions of COMIFAC cover the vast forest resources of the Congo Basin.

The *COMIFAC Convergence Plan,* adopted in 2005 to operationalise the commitments made in the Treaty, identifies priority actions to be carried out at the subregional and national levels. It has ten strategic axes: the harmonisation of forest and tax policies; knowledge on forest resources; ecosystem management and afforestation; the conservation of biological diversity; the sustainable valorisation of forest products; the development of alternative activities and poverty alleviation; capacity reinforcement, stakeholder participation, information and education; research and development; the development of financing mechanisms; and cooperation and partnerships. The Plan's *Tri-annual Action Plan 2009–2011* entered into force in July 2009. It presents a logic framework, setting out purpose, objectives and indicators of impact, as well as the expected results for each strategic axis.

Structural characteristics
Ten Central African countries are both signatories to the Yaoundé Declaration and members of COMIFAC. The Council of Ministers is the decision-making body of COMIFAC and is responsible for policy coordination and implementation. Guidelines for the implementation of the commitments were endorsed by the Summit of Heads of State and Government. The Council of Ministers is assisted by the Executive Secretariat.

COMIFAC has a memorandum of understanding with the CBD and has established partnerships with 15 organisations and initiatives, including the ATO and the Network of Central African Protected Areas.

2) African Convention on the Conservation of Nature and Natural Resources

The African Convention on the Conservation of Nature and Natural Resources was adopted in 1968 in Algiers, Algeria, and revised in Maputo, Mozambique in 2003 with the amendment of elements related to sustainable development. The overall scope of the Convention is the conservation of nature and natural resources in all African countries; it is hosted by the African Union.

Goals
The objectives of the Convention are to: enhance environmental protection; foster the conservation and sustainable use of natural resources; and harmonise and coordinate policies in these fields with a view to achieving ecologically rational, economically sound and socially acceptable development policies and programmes (Article II).

Forest-related tools
The Convention addresses (in its *principles* and further *binding commitments*) the following: sustainable forestry practices; the conservation of forested areas; the adoption of scientifically based and sound traditional conservation, utilisation and management plans for forests; the establishment of forest reserves and afforestation programmes; the limitation of forest grazing to seasons and intensities that will not prevent forest regeneration; and the preservation of species, including forest trees.

Structural characteristics
The original Convention has 30 Parties. The revised Convention has been signed by 36 countries, of which eight have ratified. The revised Convention will enter into force 30 days after the deposit of the 15th instrument of ratification. *

3) Common Market for Eastern and Southern Africa

The Common Market for Eastern and Southern Africa (COMESA) Treaty was signed in 1993 and COMESA was established in 1994 as an organisation of sovereign states. Under the Treaty, member states agree to cooperate in the development of their natural and human resources for the good of all their people.

Goals
The COMESA Treaty establishes a Common Market for Eastern and Southern Africa with the following objectives: to attain sustainable growth and development for member states; to promote joint development in all fields of economic activity and the joint adoption of macro-economic policies and programmes; to cooperate in the creation of an enabling environment for foreign, cross-border and domestic investment; to cooperate in the promotion of peace, security and stability among member states; to cooperate in strengthening relations between the Common Market and the rest of the world and the adoption of common positions in international fora; and to contribute towards the establishment, progress and realisation of the objectives of the African Economic Community (COMESA Treaty, Article 3).

Forest-related tools
COMESA's strategy for the agricultural sector stresses, among other things, the importance of cooperation and coordination in the exploitation of marine and forest resources. The *Forestry Management Strategy of COMESA* outlines key priorities for investment in the forest sector, such as in payments for ecosystem services, combating illegal trade in forest products, and capturing the value of the sector in national economies.

Structural characteristics
COMESA has evolved a comprehensive decision-making structure at the top of which are the heads of state of the 20 member countries. The Council of Ministers is responsible for policymaking, assisted by twelve technical committees and a series of other advisory bodies (including specific relations with partner countries and the business community). In addition, each member state appoints liaison persons in their appropriate ministries, who form part of the day-to-day communication process. Overall coordination is achieved through a Secretariat, which is based in Lusaka, Zambia.

* African Union website (www.africa-union.org), accessed 9 December 2009.

4) South African Development Community

The South African Development Community (SADC) was founded in 1992 with the adoption of the Windhoek Declaration and Treaty. It has 15 member states in southern Africa.

Goals
The specific aims of SADC are set out in various documents, including the Windhoek Declaration and Treaty and various protocols, development and cooperation plans, and declarations. In general, the Community is intended to provide for both socio-economic cooperation and political and security cooperation among its member states, from the coordination of national activities and policies to more far-reaching forms of cooperation, such as the harmonisation of trade and economic policies (see also McDermott et al. 2007).

Forest-related tools
SADC agreed on a Forestry Protocol in 2002, the objectives of which are to: "promote the development, conservation, sustainable management and utilisation of all types of forests and trees; promote trade in forest products throughout the Region in order to alleviate poverty and generate economic opportunities for the peoples of the Region; and achieve effective protection of the environment, and safeguard the interests of both the present and future generations" (SADC Forestry Protocol, Article 3). To achieve its objectives, the Protocol also sets out measures and guiding principles for cooperation.

Structural characteristics
SADC has eight principal bodies and is governed by the Summit, comprising heads of state or heads of government, and the Council of Ministers.

4.1.2 America

1) Regional Convention for the Management and Conservation of Natural Forest Ecosystems and Development of Forestry Plantations

The Regional Convention for the Management and Conservation of Natural Forest Ecosystems and Development of Forestry Plantations (the 'Central American Forest Convention') was agreed in 1993. It was one of the first treaties focusing specifically on forests and comprises six signatory states in Central America.

Goals
The objectives of this Convention are: preventing land-use changes in forested areas located on properties that are suitable for woodlands; restoring deforested areas; establishing a standard soil classification system; readjusting settlement policies in forested areas; discouraging the destruction of forests in lands that are suitable for woodlands; and promoting land management and sustainable options (Central American Forest Convention, Article 2).

Forest-related tools
The Convention establishes the *Central American Council for Forests and Protected Areas* as an advisory body of the Central American Commission on Environment and Development (CCAD), a subsidiary body of the Central American Integration System. The Convention is responsible for the implementation of CCAD policies and strategies on the sustainable use of forest resources and the conservation of biological diversity. It works under several strategic implementation mechanisms and action plans related to cooperation on forests in the subregion. *

Structural characteristics
No information could be obtained about the entry into force of the Convention. Implementation of the Convention is coordinated by the Central The Central American Council for Forests and Protected Areas.

2) Treaty for Amazonian Cooperation

The Treaty for Amazonian Cooperation (ACT) was agreed in 1978 by eight South American states as a legally binding framework for cooperation regarding economic development and environmental protection in the Amazon Basin. To administer the Treaty's provisions, the Amazon Cooperation Treaty Organization (ACTO) was established in 1995 under an amendment protocol to the ACT.

Goals
The goals of ACT are the development of the Amazonian territories of member countries in an equitable and mutually beneficial way, the preservation of the environment, and the conservation and rational utilisation of the natural resources of those territories with a view to maintaining the ecological balance within the region and to preserving its species (ACT, articles I and VII).

* CCAD website (www.ccad.ws), accessed 3 December 2009.

Forest-related tools

The *Strategic Plan 2004–2012* has been developed to guide ACTO in the implementation of the Treaty. It refers to the need to observe the commitments arising from relevant multilateral conventions, such as the CBD, CITES, the World Heritage Convention, the UNFCCC, the UNCCD, the Ramsar Convention and others. The strategic plan is structured according to strategic axes. Under the axis *Conservation and sustainable use of renewable resources*, the aim is to develop an alternative framework that will encourage the sustainable use of Amazonian forest services and products and discourage the unsustainable patterns of use that characterise the Amazon today. Consequently, the Treaty lays down a guiding framework for the management of Amazonian forests and for forest-related cooperation in inter-institutional networks. Thus, ACTO tackles all forest issues and activities.

In 1995 the Member Countries of the Treaty drafted the *Tarapoto Proposal of Criteria and Indicators for the Sustainability of Amazon Forest* at a regional workshop held in Tarapoto, Peru. The proposal initiated a process – the Tarapoto Process – to develop criteria and indicators for the sustainable management of forests that take into account the particular features of the ecosystems in the region.

Structural characteristics

ACTO entered into force in 1998. It is governed at different levels by the Meeting of Ministers, the Amazon Cooperation Council (CCA), and the CCA Coordination Commission. In its implementation, ACTO takes into account the relevant provisions of global treaties and cooperates with several regional organisations and the UNFF.

3) Central American Convention for the Protection of the Environment

The Central American Convention for the Protection of the Environment was signed in 1989 by five Central American states, with the option of renewing the Convention every ten years. No information could be obtained on the date of the Convention's most recent renewal.

Objectives

The main objectives of the Convention are coordinated action for sustainable development and conservation, and the determination of priority areas for action, including for tropical forest management (Central American Convention for the Protection of the Environment, Article II). *

The specific objectives are to:

- instil respect for and protect the region's natural heritage, which is characterised by a high level of biological and ecological diversity;
- establish collaborative relations among the countries of Central America in the context of the quest for and adoption of methods of sustainable development, with the participation of all entities involved with development;
- promote coordinated action by governmental, non-governmental and international bodies in order to ensure the optimal and rational use of the region's natural resources, pollution control and the restoration of the ecological balance;
- manage the collection of the regional and international funds necessary to achieve the objectives of the present system;
- strengthen the national bodies responsible for the management of natural resources and the environment;
- promote the compatibility of the principal areas of national policy and legislation with the strategies for sustainable development in the region, and, in particular, to incorporate environmental considerations and parameters into national development planning processes;
- determine the priority areas for action, including environmental education and training, the protection of shared watersheds and ecosystems, tropical forest management, pollution control in urban areas, the import and management of toxic and dangerous substances and waste, and other aspects of environmental degradation that affect the health and quality of life of the population;
- promote participatory, democratic and decentralised environmental management in the countries of the region (Central American Convention for the Protection of the Environment, Article II).

Information on implementation activities and structural characteristics were unavailable for this study.

* untreaty.un.org, accessed 4 December 2009.

4.1.3 Asia–Pacific

1) Association of Southeast Asian Nations

ASEAN was established in 1967 in Bangkok, Thailand, with the signing of the Bangkok Declaration (also known as the ASEAN Declaration). The work of ASEAN is now based on the ASEAN Charter, a legally binding agreement among the ten ASEAN member states. An aim of ASEAN is the establishment of an ASEAN Community comprising three pillars: the ASEAN Political-Security Community; the ASEAN Economic Community; and the ASEAN Socio-Cultural Community. Cooperation among the member states is already organised according this structure. ASEAN agreements apply to the territories of the member states and include, therefore, the large areas of tropical forest in Indonesia and Malaysia.

Goals

As set out in the ASEAN Declaration, the aims and purposes of ASEAN are to: accelerate economic growth, social progress and cultural development in the region; promote regional peace and stability; promote active collaboration and mutual assistance on matters of common interest in the economic, social, cultural, technical, scientific and administrative fields; provide assistance to each other in the form of training and research facilities; collaborate more effectively for the greater utilisation of agriculture and industries, the expansion of trade, the improvement of transportation and communications facilities, and the raising of the living standards of the peoples of the member states; to promote Southeast Asian studies; to maintain close and beneficial cooperation with existing international and regional organisations with similar aims and purposes; and to explore all avenues for even closer cooperation among member states.

Forest-related tools

Forest-related tools are mostly developed in the framework of the ASEAN Economic Community under the guidance of the *ASEAN Ministerial Meeting on Agriculture and Forestry* (AMAF). The basic objective of ASEAN cooperation in food, agriculture and forestry is to formulate and implement regional cooperation activities to enhance the international competitiveness of ASEAN's food, agriculture and forestry products, as well as to further strengthen joint positions in international fora. AMAF identified priority areas, which are documented in the *Ministerial Understanding on ASEAN Cooperation in Food, Agriculture and Forestry*.

For the forest sector, ASEAN has developed five strategic thrusts: SFM and the conservation of natural resources; strengthening ASEAN cooperation and joint approaches in addressing international and regional forestry issues; the promotion of intra- and extra-ASEAN trade in forest products and private-sector participation; increasing productivity and the efficient utilisation of forest products; and capacity building and human resources development. AMAF has endorsed the *ASEAN Strategic Plan of Action for 2005–2010 on Forestry*.

The *ASEAN Statement on Strengthening Forest Law Enforcement and Governance* was agreed in 2007 to further prevent and combat illegal logging and its associated trade through enhanced cooperation. The *ASEAN Multi-Sectoral Framework on Climate Change: Agriculture and Forestry Towards Food Security (AFCC)* was endorsed in 2009 to tackle issues of climate change and climate change response policies. Knowledge networks – the *ASEAN Knowledge Network on Forests and Climate Change* and the *ASEAN Regional Knowledge Network on FLEG* – have been established to facilitate exchanges at the technical level.

Some forest-related tools have been developed within the ASEAN Socio-Cultural Community. The *ASEAN Agreement on the Conservation of Nature and Natural Resources* was agreed in 1985 with the goals of maintaining essential ecological processes and life-support systems, preserving genetic diversity, and ensuring the sustainable utilisation of harvested natural resources. The binding commitments in Article 6 specifically refer to forest resources and set out measures in the context of these goals. The *ASEAN Declaration on Environmental Sustainability*, agreed in 2007, promotes the sustainable management of forests; calls on the international community to contribute to afforestation and reforestation and to reduce deforestation, forest degradation and forest fires by (for example) combating illegal logging; and sets the goal of increasing cumulative forest cover in the ASEAN region by at least 10 million hectares by 2020.

Institutional characteristics

The ASEAN Charter serves as a foundation for the Association by providing it with legal status and an institutional framework. It also codifies ASEAN norms, rules and values; sets targets; and addresses accountability and compliance. The ASEAN Charter entered into force on 15 December 2008.

Decision-making bodies related to forests include the ASEAN Senior Officials on Forestry (ASOF), and the ASEAN Expert Group on International Forest Policy Processes, which is concerned with links to global processes. Guided by AMAF, the ASOF is responsible for policy coordination, supported by expert groups such as the ASEAN Social Forestry Network.

4.1.4 Europe

1) Convention on the Conservation of European Wildlife and Natural Habitats

The Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') was adopted in 1979 and has 50 Parties.

Goals
The aims of the Bern Convention are "to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several States, and to promote such co-operation" (Bern Convention, Article 1). Particular emphasis is given to endangered and vulnerable species, including endangered and vulnerable migratory species.

Forest-related tools
Parties to the Bern Convention are obliged to take all appropriate *measures* to ensure the conservation of the habitats of wild flora and fauna species. Such measures should be included in the planning and development policies of Parties, who should also promote education and disseminate general information concerning the need to conserve species of wild flora and fauna and their habitats. Species to be specifically protected, including forest species, are listed in the *appendices to the Convention*.

Structural characteristics
The Bern Convention entered into force in 1982 and is hosted by the Council of Europe. The Convention establishes a Standing Committee, on which all Parties are represented. The Committee's principal task is to monitor the provisions of the Convention in the light of developments in the conservation status of wild flora and fauna in Europe and assessments of their needs. In particular the Standing Committee can make recommendations to Parties and amendments to the appendices in which the species to be specifically protected are listed.

2) Convention on the Protection of the Alps

The Convention on the Protection of the Alps (the 'Alpine Convention') was adopted in 1991 as a framework convention on sustainable development in the European Alps. Eight countries of the Alpine region and the European Community are Parties to the Convention. Several Protocols have been agreed.

Goals
The Convention sets out basic principles and general measures for sustainable development in the Alpine region. The objectives are to: respect, preserve and promote the cultural and social independence of the indigenous population in the region and guarantee the basis for their living standards; ensure the economic and rational use of land and the sound development of the whole region; drastically reduce the emission of pollutants and pollution problems in the Alpine region; reduce quantitative and qualitative soil damage; preserve or re-establish healthy water systems; protect, conserve and, where necessary, rehabilitate the natural environment; maintain the management of land traditionally cultivated by man and preserve and promote a system of farming which suits local conditions and is environmentally compatible; *preserve, reinforce and restore the role of forests, in particular their protective role, by improving the resistance of forest ecosystems mainly by applying natural forestry techniques and preventing any utilisation detrimental to forests, taking into account the less favourable economic conditions in the Alpine region*; harmonise tourism and recreational activities with ecological and social requirements; reduce the volume and dangers of inter-Alpine and trans-Alpine traffic to a level which is not harmful to humans, animals and plants and their habitats; introduce methods for the production, distribution and use of energy which preserve the countryside and are environmentally compatible, and promote energy-saving measures; and develop a system of waste collection, utilisation and disposal which meets the special topographic, geological and climatic requirements of the Alpine region (Alpine Convention, Article 2).

Forest-relevant tools
The *Protocol on Mountain Forests* was agreed in 1996; it aims "to preserve the mountain forests as a near-natural habitat and, whenever necessary, to develop them or increase their extent and improve their stability". The Protocol commits Parties to general and specific measures regarding forest management; the integration of its provision in the policies of other sectors; local participation; international cooperation; planning procedures; the protective, economic, social and ecological functions of forests; and access to forests, forest reserves, incentives, research, education, and information.

Structural characteristics
The Alpine Convention entered into force in 1995 and the Protocol on Forests entered into force in 2002. The Alpine Conference is the political decision-making body of the Convention and consists of the Ministers of the Alpine states. The Permanent

Committee is the executive body of the Alpine Conference; it comprises delegates of the Alpine states. Working groups may be established if deemed necessary for the implementation of the Convention, in view of assessments based on scientific information. A memorandum of understanding with the Carpathian Convention has been established.

3) Framework Convention on the Protection and Sustainable Management of the Carpathians

The Framework Convention on the Protection and Sustainable Management of the Carpathians ('Carpathian Convention') was signed in 2003 by all countries of the Carpathian region, which includes one of Europe's largest areas of virgin forests.

Goals

The general objective of the Convention is that Parties "pursue a comprehensive policy and cooperate for the protection and sustainable development of the Carpathians with a view to inter alia improving quality of life, strengthening local economies and communities, and conservation of natural values and cultural heritage" (Carpathian Convention, Article 2).

Forest-related tools

The Convention sets out *legally binding measures* to integrate the objective of the conservation and sustainable use of biological and landscape diversity into sectoral policies, such as mountain forestry; promote and support the use of instruments and programmes compatible with internationally agreed principles of SFM; apply sustainable mountain forest management practices in the Carpathians, taking into account the multiple functions of forests; and designate protected areas in natural, especially virgin, forests. Recently, a *Protocol on Forests* has been discussed in fora of the Carpathian Convention but has not yet been agreed.

Structural characteristics

The Carpathian Convention is hosted by the United Nations Environment Programme (UNEP) and entered into force in 2006. The decision-making body is the COP of the Convention, coordinated by a Bureau. In addition, working groups and committees are established for specific purposes. The Convention is linked to the CBD, the Ramsar Convention and the Alpine Convention through memoranda of understanding.

4.1.5 Forest-related legislation of the European Union

The European Union (EU) has not agreed on a legally based common forest policy to date, but legislation concerning the forest sector has been enacted in other policy areas and is binding on member states (see also Pülzl 2005). The geographical scope of the instruments of the EU is usually the area of its (currently 27) member states. The EU has institutions with the authority to draft and enact legislation and they do so on a regular basis; thus, laws are amended or replaced by new regulations on an ongoing basis. The legally binding provisions most relevant to forest policy are described briefly below.

Two directives on nature conservation, the Birds Directive and the Habitats Directive, are considered to be the backbone of EU nature protection legislation; they refer to forests as habitats of fauna and flora. The *Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitat Directive)* was adopted in 1992. The main aim of this Directive is to promote the maintenance of biodiversity, taking into account economic, social, cultural and regional requirements, while contributing to the general objective of sustainable development. The Directive provides for the conservation of rare, threatened or endemic species as well as rare and characteristic habitat types, and establishes the EU-wide Natura 2000 ecological network of protected areas. Members are obliged to designate areas according to the criteria set out in the Directive and to take measures against potentially damaging developments in these areas. The Directive refers to preventing damage to forests as habitats; forested natural habitats are listed in an annex. The *Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive)* was adopted in 1979. It ensures protection for all of Europe's wild birds, identifying species among them that are particularly threatened and in need of special conservation measures. Member states are required to designate protection areas for particularly threatened species and all migratory bird species. They are also part of the Natura 2000 network on protected areas set up under the Habitats Directive. The Birds Directive refers to preventing serious damage to forests as habitats.

Regulation (EC) No 2152/2003 of the European Parliament and of the Council November 2003 Concerning Monitoring of Forests and Environmental Interactions in the Community (Forest Focus) provides for measures regarding harmonised collection, handling and assessment of data on atmospheric pollution, forest fires, biodiversity, climate change, carbon sequestration, soils and protective functions of forests. Forest Focus was wound up on 31 December 2006 and replaced by a new financial tool for the environment, LIFE+, which operates in a broader con-

text, but the original regulation continues to govern the measures adopted under this scheme. *Regulation (EC) No 614/2007 of the European Parliament and of the Council of 2007 Concerning the Financial Instrument for the Environment (LIFE+)* co-finances environmental schemes in the EU and in certain countries outside the EU. Both private and public bodies and institutions may submit projects for funding. LIFE+ comprises three thematic components: 'Nature and Biodiversity', 'Environment Policy & Governance' and 'Information & Communication'.

In the context of *rural development regulations* (*Council Regulation (EC) No 1698/2005 of 20 September 2005 on Support for Rural Development by the European Agricultural Fund for Rural Development – EAFRD*, and others), forests are dealt with as a factor in agriculture, land-use and sustainable development. *Council Decision of 20 February 2006 on Community Strategic Guidelines for Rural Development (Programming Period 2007 to 2013)* also addresses strengthening the competitiveness of the forest sector, improving the environment, and local capacity building.

In the context of *combating illegal harvesting and illegal timber trade* in environmental and development cooperation policies, the European Commission adopted an *EU Action Plan for Forest Law Enforcement Governance and Trade (FLEGT)*.* Consequently, the Commission adopted *Council Regulation (EC) No 2173/2005* of 20 December 2005, which allows for the control of the entry of timber to the EU from countries entering into FLEGT voluntary partnership agreements (VPAs) with the EU. The EU FLEGT policies target key regions and countries containing large areas of forest and which supply a large proportion of internationally traded timber – especially Central Africa, Russia, tropical South America and Southeast Asia. In this context the European Commission is currently discussing a regulation that would prohibit the sale of illegally harvested timber in the EU and require all operators to exercise due diligence procedures to ascertain if products are legal. It is expected that the regulation will be adopted soon.

In addition, legal documents regarding trade, energy, genetic resources, development cooperation and research make references to forests, and several EU support schemes and programmes for subsidies also relate to forests.

International and regional processes on criteria and indicators for SFM

- ITTO process: tropical forests, 31 producer and 26 consumer participating countries
- Lepaterique process: Central America, seven participating countries
- Tarapoto process: Amazon forest, eight participating countries
- ATO process: tropical forests in Africa, 13 participating countries
- Dry-zone Africa process: 28 participating countries
- Dry Forest in Asia process: nine participating countries
- Near East process: 30 participating countries
- Montreal process: temperate and boreal forests outside Europe, twelve participating countries
- FOREST EUROPE – Ministerial Conference on the Protection of Forests in Europe process: European forests, 46 participating countries

Source: Wildburger (2009).

4.2 Non-legally binding instruments referring to forests

This section provides a non-exhaustive overview of non-legally binding instruments referring to forests at the regional level that meet the proposed selection criteria.

4.2.1 Criteria and indicators processes

Several regional processes on criteria and indicators for SFM have been established. Some are connected to treaties or broader intergovernmental processes and have already been referred to. Above is a list of all C&I processes, including their geographical scope and the number of participating countries. Some states participate in more than one process. All processes have developed a comprehensive set of criteria and indicators aiming at SFM.

4.2.2 Forest law enforcement processes

A number of intergovernmental processes on forest law enforcement and governance have been established to combat illegal harvesting and promote good governance. The EU FLEGT policies, which also address trade, are described above.

* Communication from the Commission to the Council and the European Parliament – FLEGT – Proposal for an EU Action Plan, COM (2003) 251 final, Brussels, 21.5.2003. The Action Plan was endorsed by the Council in Council Conclusions Forest Law Enforcement, Governance and Trade (FLEGT) (2003/C 268/01).

Europe and North Asia Forest Law Enforcement and Governance process

The Europe and North Asia Forest Law Enforcement and Governance (ENAFLEG) process was initiated in 2004. The World Bank provided technical support and an international steering committee comprising 13 countries, the EU and the World Bank was established to guide the process. In 2005, Russia hosted a ministerial conference on ENAFLEG in St Petersburg attended by representatives of 44 governments. In the St Petersburg Declaration, countries committed themselves to national and international measures to address illegal harvesting and associated illegal activities, and they endorsed an indicative list of actions. ENAFLEG specifically recognises the need for the joint efforts of and the sharing of responsibility among wood product producer and consumer countries, civil society (especially the private sector and non-governmental organisations – NGOs) and donors. *

East Asia Forest Law Enforcement and Governance process

The East Asia Forest Law Enforcement and Governance process (EAFLEG) started in 2001 when the East Asia Ministerial Conference on Forest Law Enforcement and Governance took place in Bali, Indonesia, co-hosted by the Government of Indonesia and the World Bank. The Conference adopted the Bali Declaration, in which participating countries committed themselves to, among other things, intensifying national efforts and strengthening bilateral, regional and multilateral collaboration in combating violations of forest laws. The Declaration also set out an indicative list of actions for implementing the commitments made in the Declaration. A regional FLEG task force was established to advance the Declaration's objectives, holding meetings in May 2002 and January 2003. The follow-up of the Bali Declaration has triggered agreements on specific regional efforts on forest law enforcement. **

African Forest Law Enforcement and Governance process

The African Forest Law Enforcement and Governance process (AFLEG) is part of the New Partnership for Africa's Development (NEPAD). It started with the AFLEG Ministerial Conference, which was convened in 2003 in Cameroon, co-hosted by the Government of Cameroon and the World Bank. Ministers from Africa, Europe and North America considered how partnerships between producers and consumers, donors, civil society and the private sector could address illegal forest exploitation and associated trade in Africa. The conference resulted in the endorsement of a Ministerial Declaration and an Action Plan for AFLEG. The Ministerial Declaration underlined the need for institutional and policy reforms relating to FLEG, and set out various related measures to be taken by countries. The Declaration also included an indicative list of actions addressing national level implementation; legislation and policy reform; capacity building; information; law enforcement and monitoring; wildlife resources; forest management practices; financing; and markets and trade. *

4.2.3 Instruments related to FAO regional forestry commissions

The FAO Conference established six regional forestry commissions ** between 1947 and 1959. The commissions, comprising the respective FAO member countries of the region, meet every two years to address the most important forestry issues in the region at both a policy and a technical level. The regional forestry commissions serve as a link between global FAO fora, especially the Committee on Forestry, the UNFF, and national implementation.

Most of the regional forestry commissions have set up *technical working groups or sub-regional chapters* to implement activities that contribute to globally or regionally agreed goals. Some of the commissions have also established tools that link regional implementation to the global level.

A politically relevant instrument of the FAO regional forestry commissions is the *Asia-Pacific Forest Invasive Species Network (APFISN*), established as a cooperative alliance of the 33 member countries in the Asia-Pacific Forestry Commission. APFISN is a response to the immense costs and dangers posed by invasive species to the sustainable management of forests in the Asia-Pacific region. The network focuses on inter-country cooperation that helps to detect, prevent, monitor, eradicate and/or control forest invasive species. A regional strategy for implement-

*, ** World Bank website (www.worldbank.org), accessed 10 December 2009.

* World Bank website (www.worldbank.org), accessed 10 December 2009.

** African Forestry and Wildlife Commission, Near East Forestry Commission, European Forestry Commission, North American Forestry Commission, Latin American and Caribbean Forestry Commission, Asia-Pacific Forestry Commission.

ing the short- and long-term activities of the network has been developed and endorsed by the Asia-Pacific Forestry Commission. APFISN will coordinate its activities through an elected Executive Committee, an APFISN Coordinator, and country-nominated coordinators.

4.2.4 Other processes

FOREST EUROPE

FOREST EUROPE – the Ministerial Conference on the Protection of Forests in Europe is the main intergovernmental policy process dealing with forests in the pan-European region. It was initiated in 1990 and covers all aspects of SFM in Europe. Forty-six European countries and the European Community are signatories to FOREST EUROPE.

Goals
FOREST EUROPE has no founding document that defines its objectives but, rather, a series of ministerial declarations and resolutions. The inherent goals of FOREST EUROPE can be described as promoting SFM in Europe and providing a framework for forest-related cooperation and forest policy development at the pan-European level.

Forest-related tools
Since 1990, *nineteen resolutions* have been adopted at five ministerial conferences. Through FOREST EUROPE commitments, the concept of SFM has been defined for Europe and continuously developed at the pan-European level. The resolutions cover a wide range of economic, ecological and social aspects related to forests and their management, translate relevant global commitments for the European region, and serve as a framework for implementing SFM in European countries. *Specific tools* have been developed, such as the *Pan-European Operational Level Guidelines for Sustainable Forest Management*, *Assessment Guidelines for Protected and Protective Forests and Other Wooded Land in Europe*, and the *Pan-European Guidelines for Afforestation and Reforestation*. In addition, the *Pan-European Criteria and Indicators for Sustainable Forest Management* were developed; among other things, these are used for periodic reporting on the state of forests in Europe. The implementation of FOREST EUROPE commitments is guided through *work programmes* that set out pan-European activities.

Structural characteristics
FOREST EUROPE is governed by periodic ministerial conferences. Between conferences, decisions may be made at Expert Level Meetings. Working groups on specific topics, as well as the Liaison Unit, which acts as secretariat, facilitate policy formulation and implementation. FOREST EUROPE links itself to global and regional processes by content as well as structurally and intends to represent pan-European cooperation on forest policy in global fora.

Pan-European Biological and Landscape Diversity Strategy

The Pan-European Biological and Landscape Diversity Strategy (PEBLDS) was endorsed by 55 countries at the Environment for Europe Ministerial Conference in 1995 in Sofia, Bulgaria. The PEBLDS was considered a pan-European response to the implementation of the CBD and has been established for 20 years.

Goals
The PEBLDS aims to substantially reduce threats to Europe's biological and landscape diversity; increase the resilience of Europe's biological and landscape diversity; strengthen the ecological coherence of Europe as a whole; and ensure full involvement in the conservation of the various aspects of biological and landscape diversity.

The objectives of the PEBLDS are: the conservation, enhancement and restoration of key ecosystems, habitats, species and features of the landscape through the creation and effective management of the Pan-European Ecological Network; the sustainable management and use of the positive potential of Europe's biological and landscape diversity by making optimum use of the social and economic opportunities on a local, national and regional level; the integration of biological and landscape diversity conservation and sustainable use objectives into all sectors managing or affecting such diversity; improved information on, and awareness of, biological and landscape diversity issues, and increased public participation in actions to conserve and enhance such diversity; improved understanding of the state of Europe's biological and landscape diversity and the processes that render them sustainable; and assurance of adequate financial means to implement the Strategy.

Forest-related tools
The PEBLDS addresses forests in its action plans, its Rolling Work Programme and in the PEBLDS Pan-European 2010 Biodiversity Implementation Plan. It cooperates with FOREST EUROPE in the implementation of all forest-related activities.

Structural characteristics
The PEBLDS is hosted by the Council of Europe and UNEP's Regional Office for Europe. The decision-making body is the Strategy Council, and the Strategy Bureau provides executive support. The PEBLDS has established links to several global and regional treaties and processes, including the CBD and FOREST EUROPE, usually through memoranda of understanding or cooperation frameworks.

Asia-Pacific Economic Cooperation

The Asia-Pacific Economic Cooperation (APEC) was established in 1989 as an intergovernmental forum for facilitating economic cooperation in the Asia-Pacific region. It operates on the basis of non-binding commitments and has 21 member states referred to as Member Economies.

Goals
According to its mission statement, APEC's primary goal is to support sustainable economic growth and prosperity in the Asia-Pacific region. The Bogor Goals, adopted in 1994 in the APEC Economic Leaders Declaration of Common Resolve, are "free and open trade and investment in the Asia-Pacific by 2010 for industrialised economies and 2020 for developing economies". *

Forest-related tools
The Sydney APEC Leaders' Declaration on Climate Change, Energy Security and Clean Development refers to the role of forests in the carbon cycle and addresses afforestation, reforestation, deforestation, forest degradation, SFM and illegal logging. It sets the goal of increasing forest cover in the APEC region by 20 million hectares by 2020 and establishes the Asia Pacific Network on Sustainable Forest Management and Rehabilitation.

Structural characteristics
APEC is funded by annual contributions by members. Each year one of the Member Economies plays host to meetings and serves as APEC Chair. Decisions made within APEC are reached by consensus and commitments are undertaken on a voluntary basis. The APEC Secretariat, which is based in Singapore, operates as the core support mechanism for the APEC process.

African Timber Organization

The ATO was established in 1976 to promote sustainable timber production and timber trade. It is based in Gabon and provides training and outreach to its members. The ATO has 14 African member states, which together account for over 75% of Africa's tropical forest (McDermott et al. 2007). Its main priority since 1994 has been to "promote the implementation of sustainable forest management in ATO member countries … in accordance with recommendations made at international level, especially by the Intergovernmental Panel on Forests". ** The ATO, together with ITTO, initiated a criteria and indicators process (see above) and developed the *ATO/ITTO Principles, Criteria and Indicators for the Sustainable Management of African Natural Tropical Forests*, a set of five principles, two sub-principles, 28 criteria and 60 indicators.

Forest strategy of the European Union

Since 1988 the European Union has attempted to adopt a common approach to forests, with the European Commission publishing a communication (COM 88-255) on a strategy and action programme for the forestry sector. In 1999, the Council Resolution on a Forestry Strategy for the European Union was adopted with the aim of establishing a framework for actions in support of SFM, based on the coordination of the forest policies of member states, EU policies and relevant initiatives. In 2006 the Commission adopted the EU Forest Action Plan with the aim of transforming the EU Forestry Strategy into a dynamic process capable of responding to the newly emerging policy context as well as improving co-ordination, co-operation (and coherence) in decision. The Action Plan is for the period 2007–2011; a mid-term evaluation was completed in 2009 (Pülzl and Lazdinis 2009).

* APEC website (www.apec.org), accessed 2 October 2010.

** FAO website (www.fao.org), accessed 10 December 2009.

Instrument	Geographical scope	Category
Convention on the Conservation of Migratory Species of Wild Animals	Global	Intergovernmental Legally binding
World Charter for Nature	Global	Intergovernmental Non-legally binding
Espoo Convention on Environmental Impact Assessment	Global	Intergovernmental Legally binding
Indigenous and Tribal Peoples Convention	Global	Intergovernmental Legally binding
European Landscape Convention	Europe	Intergovernmental Legally binding
Convention on the Conservation of Nature in the South Pacific (Apia Convention)	Asia (South Pacific)	Intergovernmental Legally binding
Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere	America	Intergovernmental Legally binding
The North American Agreement on Environmental Cooperation side agreements to the NAFTA	North America (Canada, United States, Mexico)	Intergovernmental Legally binding

5 Intergovernmental instruments potentially influencing forest policy

A non-exhaustive list of intergovernmental instruments that do not refer to forests in agreed documents but which might have the potential to influence forest policy is presented above. These instruments have not been analysed in terms of their goals or related tools, but their geographical scope and category/legal status are indicated.

6 International non-governmental instruments referring to forests

Various international instruments that address forest issues are led by NGOs or have a strong focus on non-government involvement. A non-exhaustive overview of such instruments is presented below.

6.1 Certification schemes

Programme for the Endorsement of Forest Certification schemes

The Programme for the Endorsement of Forest Certification schemes (PEFC) endorses national certification schemes that meet its criteria for the mutual recognition of credible certification systems worldwide. The PEFC Council is an independent, non-profit NGO, which according to its statutes aims to promote sustainably managed forests through independent third-party certification. To this end, the PEFC provides a mechanism to assure purchasers of wood and paper products that in buying such products they are promoting SFM. The PEFC was launched in Paris in 1999.

There are two categories of membership: national members, which are independent, national or sub-national organisations established to develop and implement a PEFC system within their country; and international stakeholder members, which are international entities including NGOs, companies and associations committed to supporting PEFC's principles. The PEFC currently has 35 national members. The schemes of 25 of these members have been endorsed, accounting for more than 200 million hectares of certified forests. The schemes of other national members are at various stages of development and are working towards mutual recognition under the PEFC process.

Forest Stewardship Council

The Forest Stewardship Council (FSC) was established in 1993 as a certification system that provides internationally recognised standard setting, trademark assurance and accreditation services to companies, organisations and communities. FSC is an

independent, non-profit NGO aiming to promote the responsible management of forests. It encompasses members representing, among others, environmental and social groups, the timber trade, indigenous people's organisations, responsible corporations, community forestry groups and forest product certification organisations. The General Assembly of FSC Members, the organisation's highest decision-making body, has three membership chambers (Environmental, Social and Economic). Below the level of the Assembly are two other decision-making levels: the Board of Directors and the Executive Director. FSC certification and the right to use the FSC label is based on globally applied FSC rules. Ten principles and 56 criteria form the basis of all FSC forest management standards. There are three types of FSC certificates: FSC forest management certification, FSC chain-of-custody certification and FSC controlled wood certification. According to the FSC, in October 2009 around 117 million hectares of forest in more than 82 countries worldwide were certified to FSC standards.

6.2 Public–private partnerships

The development of public–private partnerships was an important outcome of the World Summit on Sustainable Development held in Johannesburg in August/September 2002. The Summit gave formal recognition to such partnerships as an important tool for enhancing the implementation of sustainable development goals. The Johannesburg Plan of Implementation explicitly addresses public–private partnerships with regard to SFM and forest law enforcement (see Wildburger et al. 2004).

Congo Basin Forest Partnership

The Congo Basin Forest Partnership (CBFP) is an initiative to foster cooperation between an intergovernmental process, government agencies and NGOs in the Congo Basin. It was launched at the 2002 World Summit on Sustainable Development as a non-binding partnership registered with the United Nations Commission on Sustainable Development. It is a 'Type II' partnership – a voluntary multi-stakeholder initiative contributing to the implementation of an intergovernmental commitment (i.e. the Yaoundé Declaration), bringing together the ten member states of COMIFAC, donor agencies, international organisations, NGOs, scientific institutions and representatives of the private sector. The CBFP works in close cooperation with COMIFAC with the objective of promoting the conservation and sustainable management of the Congo Basin's forest ecosystems by improving the effectiveness of technical and financial contributions (according to the CBFP cooperation framework). CBFP members aim to support the implementation of COMIFAC's Convergence Plan and the Yaoundé Declaration by protecting the region's biodiversity; promoting good forest governance; and improving the population's living standards. The CBFP also facilitates the Central African Protected Areas Network.

Asia Forest Partnership

The Asia Forest Partnership (AFP) was launched in 2002 at the World Summit on Sustainable Development as a Type II partnership for sustainable development. The AFP set itself the task of information sharing, dialogue and joint action to promote SFM with an initial duration of five years (2002–07). In 2007, partners agreed to an eight-year second phase (2008–15). The goal of the AFP is to "promote cooperation and catalyze action among governments, civil society and business to achieve sustainable forest management in Asia and the Pacific and thereby maintain and enhance the provision of forest products and ecosystem services, and their contribution to human well-being". *

Green Heart of Africa Initiative

The Green Heart of Africa Initiative was launched by the World Wide Fund for Nature (WWF) with funding from the governments of Norway and the United Kingdom through the Congo Basin Forest Fund. It constitutes a regional programme with the aims of avoiding deforestation and alleviating poverty through the mobilisation of carbon-linked funding mechanisms and by ensuring the stable and equitable sharing of benefits. **

Puembo Initiative

The Puembo Initiative was launched in Puembo, Ecuador in 2002 with the aim of linking national forest programmes to the implementation of regional and global forest-related commitments. Under the Initiative, nine Latin American countries committed to joint action to support national forest programme processes. In 2005, ACTO, CCAD, the Latin Ameri-

* AFP website (www.asiaforests.org), accessed 5 October 2010.

** WWF website (www.wwf.org), accessed 12 December 2009.

can and Caribbean Forestry Commission, the Dutch Ministry for Foreign Affairs and the German Ministry for Economic Cooperation and Development launched the Puembo II Initiative to strengthen the dialogue on forests within and among countries in Latin America and the Caribbean. They proposed including more countries in the process and broadening the scope to include biodiversity issues, intersectoral approaches and overall poverty alleviation goals. Subsequently, almost all Latin American countries joined Puembo II. The key activities of the Initiative are sub-regional workshops and national studies. The three founding regional organisations (ACTO, CCAD and FAO through the Latin American and Caribbean Forestry Commission) guide the initiative and set its priorities through a steering committee. Participation is not exclusive to countries that are members of the participating organisations; other potential partners such as NGOs and the World Bank are invited to contribute to the process. A Puembo III Initiative is being planned.

Heart of Borneo Initiative

The Heart of Borneo Initiative was launched by WWF and the Government of Brunei Darussalam in 2005 with the aim of assisting Borneo's three nations (Brunei Darussalam, Indonesia and Malaysia) to conserve the forest area known as the Heart of Borneo. In February 2007 the Declaration to Conserve the Heart of Borneo was signed by the three governments; it focuses on conserving the rainforests of Borneo through a network of protected areas and sustainably managed forests and through international cooperation led by the Bornean governments supported by a global effort. *

* WWF website (www.wwf.org), accessed 12 December 2009.

7 Recent initiatives

A non-exhaustive list of recent initiatives that may lead to the development of forest-relevant instruments is presented below.

REDD

Reducing emissions from deforestation in developing countries (REDD) is a financial mechanism currently under discussion in the UNFCCC for the post-2012 climate change regime. The Bali Action Plan (*Decision 1/CP13, FCCC/CP/2007/6/Add.1*) mandates Parties to the UNFCCC to negotiate a post-2012 instrument to address the contribution of greenhouse gas emissions from deforestation in developing countries to climate change. COP 13 also adopted a decision on reducing emissions from deforestation in developing countries (*Decision 2/CP.13, FCCC/CP/2007/6/Add.1*), which encourages Parties to explore a range of actions, identify options and undertake efforts to address the drivers of deforestation and forest degradation, including through demonstration activities. This decision extends the scope of REDD to include deforestation (Karousakis 2009). Recently, REDD has been referred to as REDD+, a concept that includes forest conservation, the sustainable management of forests, and the enhancement of carbon stocks as potential REDD measures in a future mechanism.

The negotiation process on REDD is ongoing and a possible REDD mechanism is part of the overall discussion on the post-2010 climate change regime. The scope of such a mechanism, the approach to financing, and several technical and methodical aspects still need to be agreed upon. Nevertheless, if eventually agreed it could be a powerful instrument in the international forest regime.

Canada initiative on a legally binding agreement

Canada has initiated and is leading a process, with like-minded countries, on a global-level legally binding agreement on SFM; the process is outside and parallel to existing institutions. So far a non-paper, which serves as a draft for discussion purposes and provides a possible model for an agreement, has been developed. A negotiation process was scheduled to start in March 2009.

FOREST EUROPE Working Group on Exploring a Legally Binding Agreement

In 2008 the FOREST EUROPE Expert Level Meeting decided to establish a "Working Group on Exploring the Potential Added Value of and Possible Options for a Legally Binding Agreement on Forests in the Pan-European Region". The working group finalised its work in October 2009 and delivered a report containing its main findings and recommendations. Based on these findings, the Expert Level Meeting established a preparatory group/working group to develop a non-paper as technical background for the next FOREST EUROPE Ministerial Conference with the aim of setting out possible elements of a legally binding agreement on forests in Europe, including content, institutional arrangements and commitments.

Agreement between ASEAN, COMIFAC and ACTO

ASEAN, ACTO and COMIFAC – regional intergovernmental organisations that together represent the world's three largest tropical forest regions (the Amazon, the Congo Basin, and Borneo) – have agreed to work together to enhance south–south cooperation in conserving and sustainably managing tropical forests and biodiversity. The three regions collectively contain over 80% of the world's tropical forests. The goal of the agreement is to share knowledge, strategies and experiences in order to promote mutual learning on forest and biodiversity conservation policy and programmes and to improve the coordination and impact of their organisations. Several informal meetings of the three organisations have been convened. *

Proposed regulation on illegal timber in the European Union

This proposed regulation was described in Section 4.1.5.

Proposed Forest Protocol under the Carpathian Convention

This proposed protocol was described in Section 4.1.4.

* CBD website (www.biodiv.org), accessed 10 December 2009.

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