

**The International Regulation of Sustainable Forest  
Management: doctrinal concepts, governing  
institutions and implementation.**

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## **Statement of Original Authorship**

*The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.*

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## **Abstract**

The overarching objective of the research was to identify the existence and nature of international legal principles governing sustainable forest use and management. This research intended to uncover a set of forest legal considerations that are relevant for consideration across the globe. The purpose behind this, is to create a theoretical base of international forest law literature which be drawn upon to inform future international forestry research. This research will be of relevance to those undertaking examination of a particular forest issue or those focusing on forests in a particular region. The thesis explains the underlying legal issues in forest regulation, the dominant international regulatory approaches and makes suggestions as to how international and national forest policy could be improved.

## **Keywords**

Forest, Law, Legal, Carbon, Market, Sustainable Forest Management, , International law, environmental law, Rule of Law, Justice, Environmental Justice, Sovereignty, Property, Forest Governance, United Nations Forum on Forestry, Forest Convention, Forest Principles World Bank, Sustaining Forests: A Development Strategy, Poverty United Nations Framework Convention on Climate Change, Land-Use, Land-Use Change and Forestry Guidelines, Reduced Emissions from Deforestation and Degradation, Payment for Ecosystem Services, Forest Values, Forest Markets, Forest Certification Schemes, Forest Stewardship Council, Global Forest Governance.

## BRIEF CONTENTS

<i>Foreword</i> .....	1
<b>PART ONE: OVERVIEW OF RESEARCH</b> .....	<b>3</b>
<i>CHAPTER ONE: Introduction</i> .....	<b>3</b>
<b>PART TWO: THE DOCTRINAL CONCEPTS UNDERPINNING FOREST REGULATION</b> .....	<b>14</b>
<i>CHAPTER TWO: Considerations of Justice in Forest Regulation</i> .....	<b>15</b>
<i>CHAPTER THREE: Legal Concepts Creating Forest Rights and Limitations</i> .....	<b>30</b>
<i>CHAPTER FOUR: The Governance of Forest Resources Sustainably</i> .....	<b>54</b>
<b>PART THREE: INTERNATIONAL REGULATION BY PUBLIC FOREST INSTITUTIONS</b> .....	<b>72</b>
<i>CHAPTER FIVE: The Role of the United Nations Forum on Forestry</i> .....	<b>76</b>
<i>CHAPTER SIX: Regulation of Forests by the International Climate Change Regime</i> .....	<b>116</b>
<i>CHAPTER SEVEN: Regulation of Forest Resources by the World Bank</i> .....	<b>161</b>
<b>PART FOUR: REGULATION BY NON-STATE FOREST INSTITUTIONS</b> .....	<b>199</b>
<i>CHAPTER EIGHT: The Legal Requirements of Forestry Markets</i> .....	<b>200</b>
<i>CHAPTER NINE: Forest Certification Schemes</i> .....	<b>241</b>
<b>PART FIVE: CONCLUSIONS</b> .....	<b>272</b>
<i>CHAPTER TEN: Evaluation and Recommendations</i> .....	<b>272</b>

# TABLE OF CONTENTS

<i>Foreword</i> .....	1
<b>PART ONE: OVERVIEW OF RESEARCH</b> .....	<b>3</b>
<b>CHAPTER ONE: Introduction</b> .....	<b>3</b>
1. Objectives of Research .....	3
2. Research Questions .....	4
3. Current Trends in Forest Regulation .....	5
4. Brief Synopsis of Chapters .....	12
<b>PART TWO: THE DOCTRINAL CONCEPTS UNDERPINNING FOREST REGULATION</b> .....	<b>14</b>
<b>CHAPTER TWO: Considerations of Justice in Forest Regulation</b> .....	<b>15</b>
1. The Role of Law and the ‘Rule of Law’ in Forest Regulation .....	15
2. Global Forest Responsibility and Justice.....	18
3. Conclusion .....	29
<b>CHAPTER THREE: Legal Concepts Creating Forest Rights and Limitations</b> .....	<b>30</b>
1. Introduction.....	30
2. Rights Associated with Sovereignty.....	30
3. The Effect of Property Rights on Forest Regulation .....	33
4. Limitations on the Rights of Sovereignty.....	44
5. Limitations on the Rights of Property.....	49
6. Conclusion .....	52
<b>CHAPTER FOUR: The Governance of Forest Resources Sustainably</b> .....	<b>54</b>
1. Introduction.....	54
2. The Function of Governance .....	55
3. The Origin and Meaning of Sustainable Forest Management.....	56
4. International Governance of Sustainable Forest Management .....	58
5. The Legal Requirements of Sustainable Forest Management.....	60
6. Assessing the Effectiveness of Global Forest Regulation .....	67
7. Conclusion .....	68
<b>PART THREE: INTERNATIONAL REGULATION BY PUBLIC FOREST INSTITUTIONS</b> .....	<b>72</b>
<b>CHAPTER FIVE: The Role of the United Nations Forum on Forestry</b> .....	<b>76</b>
1. Introduction.....	76
2. The Institutional Structure of the United Nations Forum on Forestry .....	77
3. International Instruments created by the United Nations Forum on Forestry .....	85
4. Arguments For and Against a Forest Convention.....	94
5. Implementation of United Nations Forum on Forestry Programmes .....	98
6. Conclusion .....	114
<b>CHAPTER SIX: Regulation of Forests by the International Climate Change Regime</b> .....	<b>116</b>
1. Introduction.....	116
2. The Institutional Structure of the International Climate Change Regime .....	119

3. International Instruments created by the International Climate Change regime concerning forests .....	125
4. Implementation of Forest Initiatives within the International Climate Change Regime .....	155
5. Conclusion.....	159
<b>CHAPTER SEVEN: Regulation of Forest Resources by the World Bank.....</b>	<b>161</b>
1. Introduction .....	161
2. The Institutional Structure of the World Bank.....	165
3. International Forest Instruments created by the World Bank.....	183
4. Implementation of World Bank Forest Initiatives.....	194
5. Conclusion.....	198
<b>PART FOUR: REGULATION BY NON-STATE FOREST INSTITUTIONS.....</b>	<b>199</b>
<b>CHAPTER EIGHT: The Legal Requirements of Forestry Markets .....</b>	<b>200</b>
1. Introduction .....	200
2. The Emergence of Environmental Economic Regulation.....	200
3. Emerging Economic Forest Instruments .....	205
4. Forest Market Design and Governance Considerations .....	214
5. Forest Market Legal Issues.....	224
6. Implementation: Case Study – Biodiversity Banking in New South Wales .....	233
7. Critique of Modern Environmental Markets.....	237
8. Conclusion.....	240
<b>CHAPTER NINE: Forest Certification Schemes.....</b>	<b>241</b>
1. Introduction .....	241
2. The Emergence of a Forest Certification Mechanism .....	243
3. Forest Certification Institutions .....	250
4. Forest Certification Instruments .....	259
5. Implementation of Forest Certification Schemes .....	263
6. Conclusion.....	271
<b>PART FIVE: CONCLUSIONS.....</b>	<b>272</b>
<b>CHAPTER TEN: Evaluation and Recommendations .....</b>	<b>272</b>
1. Overview of the Approach to Research .....	272
2. Research Questions.....	276
3. Main International Forest Institutions.....	276
4. Milestone Forest Instruments.....	283
5. Major Challenges of International Forest Regulation .....	284
6. Effectiveness of the International Forest Regime.....	286
7. Improving International Forest Regulation and Domestic Forest Policy .....	290
8. Concluding Thoughts.....	294

## Foreword

Recently, I was fortunate enough to fulfil a lifelong dream of visiting the Amazon. Upon entering the Amazon, I was immediately reminded of the grand beauty and importance of forests. The Amazon is an amazing place. It is a spiritual place; a home to thousands of people, a living repository of biodiversity, a supplier of forest values and the lungs of the earth. One of my most memorable experiences was floating along the river at night time, watching the fireflies light up the forest and listening to the night sounds of the forest and its inhabitants. This was a truly magical experience being humbling, calming and inspiring in turn. Experiences such as this will ensure that forests always remain a passion of mine.

The Amazon experience was unique for me in that I witnessed people living in a more harmonious way with nature. The communities dotted along the banks of the Amazon depend upon the Amazon forest and river for their livelihoods. The daily living practices I observed seemed to be much more sustainable and honest than those of people living in big cities. This is not to suggest that life in the Amazon is perfect, nor to idealise that way of life. To do so would mean to ignore long-standing serious issues in the Amazon such as large-scale deforestation, replacement of native forest with non-indigenous crops and trees, tenure disputes and insecurity, displacement of indigenous groups and communities, and loss of biodiversity. The Amazon, despite these challenges, is still an inspiring place and a very firm reminder as to the importance of research in forestry law and regulation.

The production of this work has been a lengthy and challenging process. My ideas and thoughts surrounding forest regulation have changed and developed as my understanding of the area has increased. I have found that forestry regulation is an extremely complicated function, and that there is no one simple solution to improving global forest management. Deforestation and unsustainable timber practices take place for a wide variety of reasons. Those involved in such practices are not necessarily villains; nor are the people engaged in forest conservation always right. Forest regulation is about finding the right balance between use and non-use, about recognising all the interests in forests in an equitable and fair manner, and ensuring practices that accord with the rule of law are followed.

There are a number of people who I would like to acknowledge for their help, support and encouragement during this process. I would like to thank my principal supervisor, Professor Douglas Fisher, for helping me to understand the doctrinal concepts of environmental regulation and for his great assistance in helping me to find clarity where I could find nothing but confusion. I would also like to thank my associate supervisor, Professor Hugh Lavery, for his detailed, fast and thoughtful comments on my research and for constantly reminding me

that 'law' is but one of the necessary criteria for change of environmental management. I would like to acknowledge the continued support and encouragement provided by Tina Cockburn. Tina is responsible for my enrolment in the PhD program, and remains an inspiration as an academic and as a person. I would also like to thank Anne Overell for her professional and thoughtful editorial comments. Thank you to the Faculty of Law and the Institute for Sustainable Resources (QUT) for funding this research and for additional financial support to attend and present at international conferences. These opportunities enhanced my understanding of the area and ensured that my research remained up-to-date with the ever-changing face of international environmental regulation. I would also like to thank my sister, Adele Maguire, for stepping in at the last minute to help me with formatting and referencing. This practical and emotional support helped me to complete my thesis.



# **PART ONE: OVERVIEW OF RESEARCH**

## **CHAPTER ONE: Introduction**

### **1. Objectives of Research**

The objective of this research is to examine the arrangements underpinning international forestry regulation. By examining these arrangements, it becomes possible to understand the nature and requirements of international law governing sustainable forest management and use. Furthermore, the nature of domestic forest regulation can be understood by exploring international forest institutions and standards. In some chapters (where relevant), the international principles are traceable into implementation at the national level. Such a process allows for a deepened understanding of the influence of international law upon domestic law. It also illustrates that the implementation of international principles and policies may be implemented in a variety of ways, either directly influencing policy decisions or, more indirectly, influencing policy and trends.

This research aims to identify and analyse the legal principles and the governance requirements of sustainable forest management. The purpose of the research is to provide an analytical model for legal forest analysis. Existing literature concerning the concept of sustainable forest management has mainly been generated by scientific and political science authors. Legal analysis concerning the concept of sustainable forest management is very limited and has tended to focus on particular processes associated with the concept (such as National Forest Policy instruments). This is probably explained in part by the lack of clarity surrounding the legal status of sustainable forest management obligations. This research creates an analytical model in Part Two, which identifies the doctrinal concepts that underpin forest regulation (justice, property, sovereignty and governance). In Parts Three and Four, a number of international forest institutions are examined. To assess each international forest institution consistently a methodology was created for this research and involves three components:

- an analysis of the institutional structure of the body;
- an analysis of the legal instruments and the legal obligations contained within or created by the body; and
- an analysis reviewing the implementation measures of the body.

This research builds upon existing literature that discussed sustainable forest management, international forest regulation and politics, the role of international law, governance arrangements, land tenure, property rights, environmental justice and environmental markets. The analysis conducted in this thesis will be of relevance to those undertaking examination of a particular forest issue, because it: identifies and explains the underlying legal issues in forest regulation; analyses the dominant international regulatory approaches; and makes suggestions as to how international and national forest policy could be improved.

This thesis deals with the concept of 'sustainable forest management' as distinct from the concept of 'forests'. The concept and meaning sustainable forest management is further explored in chapter four. Sustainable forest management is an ever-evolving concept which attempts to incorporate and recognise all forest values (ecological, social and economic). The concept of sustainable forest management can be applied to wide range of forest ecosystems.

Guidance for definition of forest can be drawn from the Intergovernmental Panel on Climate Change 4<sup>th</sup> Assessment Report. Annex of this report states that a forest may consist either of closed forest formations where trees of various storey and undergrowth cover a high proportion of the ground or of open forest. This thesis takes a broad approach to defining 'forest ecosystem' and includes all areas with substantial tree cover including all types of forest compositions, range of locations and species structures. This broad definition of forest means that rainforests, tropical, boreal, temperate, wetlands, grasslands and any other area with reasonably dense tree coverage is within the scope of the definition and such the sustainable forest management recommendations made by thesis applicable.

## **2. Research Questions**

To examine the international legal obligations associated with the concept of sustainable forest management, the following research questions were posed:

1. What are the main international institutions involved in international regulation of forestry?
2. What international forest instruments are considered to be milestones in the development of international forestry law?
3. Are international forest institutions and instruments effective?
4. What are the major challenges of international forest regulation?
5. How can international forest regulation and domestic forest policy be improved?

### **3. Current Trends in Forest Regulation**

There are a number of issues currently influencing the development and direction of international forestry policy. It is important to outline these trends as they are likely to play a large role in shaping the future international forestry regime. The international climate change regime is playing a dominant role in influencing all environmental and developmental policy internationally. This is attributable to the high political platform of climate change negotiations. The second big driver of international forest regulation is the emergence of a series of global networks working towards addressing trade in illegal timber. A third trend in forest regulation is the increasingly dominant presence of private international forest regulation. The major challenges associated with forest regulation, however, remain the same. These include: the negotiation of international forest instruments; the associated implementation of, or compliance with, these instruments; and the lack of capacity and political will to support international forestry obligations.

#### ***A. The influence of climate change on forest policy***

The international climate change regime has become a dominant player in the realm of international environmental regulation. Variations in the earth's condition arising from climate change will impact all members of the global community and all sectors of the global economy. For this reason, climate change has captured the world's attention. The climate change regime attempts to address all sources and sinks of global greenhouse gas emissions. Deforestation accounts for approximately 20% of global greenhouse gas emissions. Reduced deforestation is viewed by many within the international climate change regime as having the ability to reduce global emissions significantly. Such a reduction is dependent on the creation of appropriate policy instruments and supporting political commitments.<sup>1</sup>

Forest practices can be modified to reduce their 'source value' of greenhouse gas emissions by, for example, employing more sustainable harvesting and silvicultural practices. Forests are also regulated by the regime for their 'sink values' – that is, their ability to absorb carbon. The international climate change regime, unlike the international forest regime, has considerably more international political and financial support. This support provides the potential to channel international funds towards projects that lower forest emissions and, as such, remains an influential player in international forestry regulation.

Forest policy is being influenced by climate change science and policy in a number of ways. The role of forests in mitigating climate change is directly addressed by the international climate

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<sup>1</sup> Tom Griffiths, *Seeing 'REDD'? Forests, climate change mitigation and the rights of indigenous peoples and local communities*, Forest People Programme, UK (2008).

change regime. Chapter Six discusses a number of mechanisms that allow countries to account for the source/sink value of forest practices in more detail. Some of these include the Land-Use, Land-Use Change and Forestry guidelines (LULUCF), which developed countries can use to measure carbon stored by forestry and land management practices. There are also the afforestation and reforestation guidelines of the clean development mechanism (CDM); these allow developed countries to invest in forest projects in developing countries to offset emissions above their allocated Kyoto quota.

After the Copenhagen negotiations, it is expected that another forest instrument will be created: a Reduced Emissions from Deforestation and Degradation (REDD) instrument.<sup>2</sup> This instrument will allow developed nations to offset emissions above their allocated Kyoto quota by investing in projects that conserve existing old-growth forest stands. Members of the international forestry community hope that such an instrument will finally deliver forest protection in developing countries.<sup>3</sup> The international forest community awaits the development of a REDD instrument. This would be the first international forest instrument to emerge with funds and capacity assistance alongside forest conservation obligations. A lot of hope is being pinned on this instrument's ability to transfer funds and improve forest tenure for local forest communities.

There are also suggestions that the carbon stored in wood products should be included within future carbon accounting regimes. This would recognise the importance of carbon stored in long-term forest products such as building and furniture materials.<sup>4</sup> Methodologies are beginning to be developed to measure the carbon intake of such products. There is strong support from timber manufacturers for such accounting methodologies, as this would lead to timber being seen as a low-carbon resource for the construction and furniture industries. The future climate-change regime may respond to such pressure, and allow for such carbon to be accountable within future regulatory frameworks.

The requirements of the three policies outlined above (LULUCF, CDM and REDD) are likely to evolve after the first commitment period of the Kyoto Protocol expires in 2012. At this stage, it

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<sup>2</sup> For recent discussion of legal issues connected with the REDD mechanism see Rosemary Lyster, 'The new frontier of climate law: Reducing Emissions from Deforestation (and Degradation) (2009) 26 *Environmental and Planning Law Journal* 417.

<sup>3</sup> It has been suggested that very few developing countries have the resources and infrastructure necessary to benefit from forest carbon sequestration projects should funding become available. See Jacek Siry et al, 'Sustainable forest management: global trends and opportunities' (2005) 7 *Forest Politics and Economics* 551, 557.

<sup>4</sup> For further information see Ian Fry, 'Twists and Turns in the Jungle: Exploring the Evolution of Land-use, Land-Use Change and Forestry Decisions within the Kyoto Protocol' 2002 (11) 2 *Review of European Community and International Environmental Law* 341.

is unclear if the Kyoto Protocol will continue to operate beyond this first commitment period. International politics are currently being played out to determine whether there is broad support for certain developing countries (for example, India and China) to adopt binding emission targets. The Kyoto Protocol requires developed nations to take the lead in lowering global greenhouse gas emissions on the basis that such emissions are the result of the lifestyles of developed countries. This is being called into question due to rapid economic growth in India and China, leading to significant increases in their emission levels. Striking a just approach to global emissions reduction liability is essential for the future of the international climate-change regime. The precise requirements of forestry obligations within the international climate change regime beyond 2012 remain unclear. What is clear is the fact that emissions from forest degradation and deforestation make a significant contribution to global greenhouse gas emissions. Noting this, it is safe to assume that any future international climate-change policy will have a strong interest in regulating forest practices to reduce global greenhouse gas emissions.

The international climate-change regime encourages the use and development of renewable and sustainable energy production. Forests are now seen as a source for the production of renewable energy through bio-energy production. There is, however, some concern that demand for bio-energy from forest products will become a further driver of deforestation as the world's energy demands increase. The Food and Agricultural Organisation predicts that there will be an increase in the global demand for wood. The drivers of this demand are linked to bio-fuel policies in the European Union, and an increase in per capita consumption of wood products in Asia (though per capita consumption levels is predicted to remain higher in Europe and North America).<sup>5</sup> Furthermore, it is anticipated that by 2060 there will be a six-fold increase in the world demand for fuel wood. This will result in an increase of wood prices, and will mean that forest products previously used to manufacture sawn wood, panels and pulp will, instead, be used for energy production.<sup>6</sup> The production of energy from timber products will create even more competition for forest use, and it has been suggested that the high wood prices attributed to forest products for bio-fuel production will place further stress on forest health.<sup>7</sup> It is hoped that these concerns will be addressed by bio-fuel regulations – for example, a requirement that forest bio-fuel is generated from sources of sustainably managed and purpose created timber stocks.

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<sup>5</sup> Food and Agricultural Organisation Forestry Division, *State of the World's Forests 2009*, Food and Agricultural Organization of the United Nations (2009) ix.

<sup>6</sup> Ronald Raunikar et al, 'Global outlook for wood and forests with the bioenergy demand implied by scenarios of the Intergovernmental Panel on Climate Change' (2010) 12 *Forest Policy and Economics* 48, 55.

<sup>7</sup> *Ibid.*

Increased attention is also being paid to the effect of rising temperatures and drought associated with climate change on forest ecosystems. A recent global study measured the impact of heat stress and drought on forest areas.<sup>8</sup> An increase in the frequency, duration and severity of drought associated with climate change has the potential to alter fundamentally the composition, structure, and biogeography of forests in many regions. Of particular concern are increases in tree mortality associated with climate-related changes such as insect outbreaks and wildfire. The study found 88 examples of forest mortality driven by climatic water or heat stress since 1970. This suggests that climate change adaptation techniques and methodologies will need to be built into forest management regimes. Such management methodologies are still in the developmental stage, but it is expected that significant research will be carried out to determine how forest management can be adapted to deal with issues presented by climate change.<sup>9</sup>

Climate change has already started to impact the timber industry. Increases in the temperature of forests in British Columbia, Canada, have led to the outbreak of a mountain pine beetle epidemic. This beetle infestation has arisen from the unusually warm temperatures of the forests during all winter periods since 1999. Previously, the very low temperatures of British Columbia killed the beetle, thus regulating the beetle population. This beetle infestation has detrimentally affected 13 million hectares of pine forest in western Canada, and is a significant concern for those involved in the British Columbia timber industry.<sup>10</sup> The timber industry and government are investing in solutions to overcome the beetle infestation. This example highlights the need for adaptive forest management practices as a result of climate change.

### ***B. Common goal of banning trade in illegal timber***

There are a number of international processes that aim to prevent trade in illegally harvested timber. The oldest body dealing with trade in tropical timber is the United Nations International Tropical Timber Organisation (UNITTO). This body was formed in 1986 and has attempted to deal with concerns surrounding tropical forest conservation from a trade-based focus. In particular, the UNITTO is concerned with the existence of sustainably managed tropical forest reserves. Ultimately, the goal of this body is to protect the longevity and the

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<sup>8</sup> Craig D Allen et al, 'A global overview of drought and heat-induced tree mortality reveals emerging climate change risks for forests' (2009) *Forest Ecology and Management* (in press).

<sup>9</sup> Craig R Nitschke and John L Innes, 'Integrating climate change into forest management in South-Central British Columbia: An assessment of landscape vulnerability and development of a climate-smart framework' (2008) 256 *Forest Ecology and Management* 313.

<sup>10</sup> A number of articles document the impact of the mountain pine beetle on the forests of British Columbia, for example, Michael Wulder, et al, 'Monitoring the impacts of mountain pine beetle mitigation', (2009), 258, *Forest Ecology and Management*, 1181 discusses methods for mitigating the effects of the beetle.

economic viability of the international timber market. In addition, a number of recent forest trade initiatives have developed alongside one another. These include the European Union's Forest Law Enforcement and Governance Trade (FLEGT) initiative, developments within forestry certification schemes, and developments through individual domestic forest policies committing to ban the import of illegally sourced timber.

The European Union's FLEGT process works by consumer and producer timber countries entering into voluntary partnership agreements. The terms of these agreements require that all timber supplied complies with legal and sustainable harvesting practices. Part of the FLEGT process involves capacity building and assistance to implement legal harvesting practices. Two voluntary partnership agreements have been signed to date: one with Ghana, and one with the Republic of Congo. Negotiations with Indonesia continue and, in July 2009, Indonesia adopted a national decree on a timber legality assurance system. Forest certification schemes work towards preventing trade in illegally sourced timber by verifying through a consumer label that the products come from sustainably managed sources. The definition of sustainable forest management used by forest certification schemes requires that timber be sourced from legal forest operations only.

The United States of America has enacted the *Lacey Act*,<sup>11</sup> which aims to curb illegal timber trade by making the import or export of such timber a crime. The legislation, in operation from 15 December 2008, creates an offence for anyone who either: imports illegally harvested timber into the United States of America; or, who exports products containing illegally sourced timber. An objective standard is applied to determine liability. If the party knows, or should have known, that the timber was illegal, then they will be found guilty of a crime. This form of command-and-control regulation imposes heavy sanctions, ranging from five years imprisonment to a \$US500,000 fine per violation, as well as forfeiture of the merchandise. The legality requirement is ensured by requiring all wood and wood product imports to include a customs declaration that provides the scientific name of the wood, its value and quantity, and the name of the country where it was harvested.<sup>12</sup> The reason for the introduction of this law was the contribution to global greenhouse gas emissions arising from trade in illegally sourced timber. It may be safe to assume that the Act's provisions will impact positively upon the domestic timber industry in the United States of America by making their prices more competitive than with timber that is illegally sourced.

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<sup>11</sup> 16 U.S.C. 3371-3378

<sup>12</sup> International Network for Environmental Compliance and Enforcement, *Recent Amendments to U.S. Lacey Act Should Help Protect Forests Worldwide* (2008) International Network for Environmental Compliance and Enforcement, [http://www.inece.org/climate/ClimateComplianceAlert\\_LaceyAct.pdf](http://www.inece.org/climate/ClimateComplianceAlert_LaceyAct.pdf) at 16 December 2009.

The Australian government has suggested that it would “encourage sourcing of forest products from sustainable forest practices and seek to ban the sale of illegally logged timber exports”, though this is yet to amount to enforceable legislation. Australia has also explored the possibility of introducing a policy to prevent trade in illegally sourced timber.<sup>13</sup> The discussion paper outlines five main goals:

1. Build capacity within regional governments to prevent illegal harvesting.
2. Develop and support certification schemes for timber products sold in Australia.
3. Identify illegally logged timber, and restrict its import into Australia.
4. Require disclosure at point-of-sale of species, country of origin and certification status.
5. Promote the use of market-based incentives in reducing emissions from deforestation in future international climate change negotiations.

### ***C. The increasing role of non-state forestry regulation***

‘Non-state forest regulation’ is a term used by this thesis to refer to international forest regulation that occurs outside of traditional forms of public or private international regulation.<sup>14</sup> This is international forest regulation that is difficult to characterise as some aspects of the regulation are based in public international law, some in private international law, and some are typical of neither form. The lack of progress by public international forest institutions in implementing forest policy has led to the creation of non-state-based approaches to international forest regulation.<sup>15</sup> Non-state forest regulation has been able to develop international forest policy and standards away from the political arena of the United Nations. As such, many of the contentious international forest issues – such as sovereignty, capacity building and technology transfer – have been able to be avoided. Participation with non-state forest institutions occurs on a voluntary basis. As such, participants engage with such institutions on the basis of the incentive offered by the institution. The incentive may be an eco-label, an economic payment, or the development of green credentials.

Pattberg states that “rules made by private multi stakeholder partnerships in the field of environmental politics not only contain prescriptions of behaviour directed toward the

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<sup>13</sup> Centre for International Economics Canberra and Sydney, *Proposed new policy on illegally logged timber: issues paper*, (2009).

<sup>14</sup> In support of this see: Robert Faulkner, ‘Private Environmental Governance and International Relations: Exploring the Links’, (2003), 3 (2), *Global Environmental Politics*, 72.

<sup>15</sup> “... the result of the State’s failure to produce a binding global forest instrument and inaction on forest products ecolabeling, nonstate forest certification schemes have emerged in the shape of powerful market driven governance and rule making systems.” See: Lars Gulbrandsen, ‘Overlapping public and private governance: Can forest certification fill the gaps in the global forest regime?’, (2004), 4 (2), *Global Environmental Politics*, 75, 76. See also: Sander Chan and Philipp Pattberg, ‘Private Rule-Making and the Politics of Accountability: Analysing Global Forest Governance’, (2008), 8:3, *Global Environmental Politics*, 103; and Craig Murphy, ‘Privatizing Environmental Governance’, (2009); 9 (3); *Global Environmental Politics*, 134.



environment. They also define who accounts for compliance with management standards, codes of conduct, or labels, and under what rules”.<sup>16</sup> Aligned with this, Falkner states “these structuring effects resemble the ‘public’ governing function of states and intergovernmental institutions, and for this reason the notion of governance, and indeed authority, has been applied to private actors.”<sup>17</sup> This suggests that non-state regulation has been granted political legitimacy and support from a wide range of stakeholders.

Such stakeholders include forest departments, central governmental agencies, local governmental agencies, pro-active companies, national non-government organisations, consumers, academics, researchers, development assistance donors, consultants, international NGOs, community-based organisations, the logging industry and non-progressive forest producers, communities, farmers and the spectators, and policy target groups.<sup>18</sup> It is easier for a broad range of stakeholders to participate in private forest regimes, as parties are able to interact directly with the governing institution. This is rather different from the merely representative input that such stakeholder groups get at public international negotiations.

This thesis explores two non-state regulatory approaches to forest management: forestry certification schemes; and payment for ecosystem service regimes (forest markets). These are the characteristics common to both forms of non-state regulation:

- industry has played a role in creating/ driving the regulation;
- both involve market-based regulation;
- both schemes are largely voluntary; and
- both schemes are transnational in character.

Both forestry certification schemes and markets selling forest ecosystem services have influenced the nature of domestic forest regulation. Forestry certification schemes have significantly contributed to the development of domestic productive forest standards. Areas under forest certification status have been directly influenced by non-state regulation. Likewise forest market mechanisms enforce their requirements by providing an economic incentive once it is established that certain sustainable forest management criteria have been met. A number of schemes have been developed to sell forest ecosystem services and, again, non-state regulation is directly affecting the management and use of these forest areas.

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<sup>16</sup> Philipp Pattberg, ‘The Forest Stewardship Council: Risk and Potential of Private Forest Governance’ (2005) 14 *The Journal of Environment and Development*, 356, 359.

<sup>17</sup> Robert Falkner, ‘Private Environmental Governance and International Relations: Exploring the Links’ (2003) 3.2 *Global Environmental Politics*, 72, 72-73.

<sup>18</sup> James Magyer and Stephen Bass, *Policy that works for forests and people* (1999), chapter 2.

It is easier to enforce non-state sustainable forest management standards than public international ones. This is because non-state regulation is voluntary, and parties have elected to participate and comply with the regime. As suggested earlier, it is assumed that parties engage with such processes due to the incentive offered by the regime. Forest certification provides participants with an eco-label that they can use to differentiate their product in the market, while forest markets provide economic incentives to encourage compliance. Forest markets, provide participants with an economic incentive to manage and use the forest area according to certain criteria. Additionally, the nature of public international environmental law requires states to take the lead in the implementation of international commitments. States have to weigh many factors when considering the implementation of international forest standards. The politics associated with forest regulation often leads to states finding the middle ground in terms of forest regulation, often resulting in voluntary or non-legally binding policies. These factors combined have resulted in stronger compliance with non-state forestry standards than the public international ones.

#### **4. Brief Synopsis of Chapters**

This thesis is divided into five main parts. Part One includes the present introductory chapter that explains the purpose of the research and to provides a short summary of key legal issues in the international regulation of forestry. Part Two has three chapters that explore the legal doctrinal concepts related to the regulation of sustainable forest management: Chapter Two examines justice issues that arise in forest regulation; Chapter Three examines the concepts of state sovereignty and property as principles creating rights and responsibilities in relation to forest use and management; and Chapter Four examines the governance arrangements required for sustainable forest management.

Part Three focuses on three public international bodies that play a role in creating and implementing international forestry regulation. The public international bodies chosen for analysis were selected for their perspectives on forest management. Each chapter in this part explores the institutional structure, the founding instruments and the implementation progress of each body, and this provides a basis for comparison across the institutional arrangements. Chapter Five examines the modalities of the United Nations Forum on Forestry. This public international body is a platform that discusses all issues concerning sustainable forest management. Its major accomplishment is the creation of National Forest Policies in most countries. The National Forest Policy of Australia is then examined in light of some political issues arising in relation to sustainable forest management in Australia. Chapter Six looks at the legal rules affecting forestry created under the international climate-change

regime. The forest value or ecosystem service regulated by the climate-change regime is the carbon storage value associated with forest areas. Australia's implementation of Kyoto Protocol forest modalities is examined to illustrate the impact of international law on national law. Chapter Seven analyses the operation of the World Bank forest policy. The World Bank is primarily interested in improving the health and extent of forest areas as a means of alleviating poverty. A strong correlation exists between those experiencing poverty and people living in forest areas, which, again, highlights the need for mutually sustainable practices.

Part Four focuses on private international forestry regulation. Chapter Eight examines the conditions leading to the creation of markets for forest ecosystem services. This relatively new form of regulation places an economic value upon a particular forest ecosystem service, such as biodiversity, watershed, or scenic amenity. A trade takes place for economic benefit, between a provider of a forest service and a buyer of a forest service. A regulatory system then needs to be established to ensure that the trade is transparent and accountable. The Biodiversity Banking regime of the New South Wales government is examined in light of the theoretical considerations outlined earlier in the chapter. Chapter Nine focuses on the operations of forestry certification schemes. These schemes work by creating an eco-label, which is affixed to forest products that meet the requirements of the certifying bodies. These schemes work on the basis that consumers will drive the demand for more sustainable forest practices by buying forest products from sustainably managed areas. There are a number of international forestry certification schemes all competing for authority. The original and largest international forest certification scheme is the Forest Stewardship Council. The operational modalities of this body are examined.

Part Four contains Chapter Ten, which discusses the overall conclusions and findings of this research. The conclusion provides answers to the research questions posed, makes recommendations for the reform of the regulatory bodies examined, and makes recommendations for the reform of global governance arrangements.

## **PART TWO: THE DOCTRINAL CONCEPTS UNDERPINNING FOREST REGULATION**

The purpose of Part Two is to explain the issues, concepts, doctrines, principles and rules relating to forest regulation. This thesis has identified a number of legal issues that arise in forest regulation. The rule of law requires the existence of clear and enforceable rights. This paradigm should apply within the forest context at both the international and state regulatory levels. From an international legal perspective, the concept of state sovereignty remains a relevant consideration when designing international forest obligations. From a state level perspective, the most important considerations in the design of forest regulation are issues connected with forest tenure and use rights. Such rights lie at the heart of forest regulation, as they define who holds the right to use the forest area, and how the forest area may be used depending upon the nature of the right conferred. Forest governance is an important legal consideration both at the global and state levels. Governance arrangements define the process for recognition and enforcement of rights. Effective governance institutional structures and processes allow for the implementation of forest norms and rules. Measurement of effectiveness should be assessed in reference to established 'effectiveness criteria'.

These doctrinal concepts are then used in Parts Three and Four to assess the range of policy responses and approaches to forest regulation. Part Three traces the role of these doctrinal concepts in regulation by public international bodies, while Part Four examines the role of these concepts in private forest regulation. This part separates forest issues concepts, doctrines and principles into three categories, which are broken up by chapter. The material is divided into the following chapters:

- Chapter Two examines justice issues in forest regulation.
- Chapter Three evaluates the concepts of state sovereignty and property as creating rights to forest areas and limitations on the use of forest areas.
- Chapter Four analyses the governance arrangements required for the implementation of sustainable forest management.

## **CHAPTER TWO: Considerations of Justice in Forest Regulation**

### **1. The Role of Law and the ‘Rule of Law’ in Forest Regulation**

Adequate forestry legal frameworks are essential to ensure the implementation of sustainable forest management. Society, as a whole, generally accepts the operation of rules and the application of standards to regulate our conduct. This is because, ideally, the law should be a reflection of society’s values and views on the appropriate response to any situation. Society does not have one common view of how environmental resources should be used and managed – therefore, the law does not necessarily reflect all of society’s views on how the environment should be used and managed. The law has the potential to evolve continually to try to reflect all interests in the environment more effectively. Law should evolve in line with changes in society’s views and values, and should attempt to reflect the many different values and interests associated with the environment.

For advances to be made in implementing sustainable forest management, appropriate legal rules, institutions and processes must exist. Law is a crucial component in such change, as it is the law that governs most transactions among people. Similarly, the law also governs the forms of transactions between people and the environment. Law defines the role of the state and the relationship between the state and its citizens.

The rule of law requires that certain conditions be satisfied in the creation and enforcement of legal rules. The International Development Legal Organisation lists a number of requirements for rule by law. These are:<sup>1</sup>

- A set of legally binding rules which are known in advance.
- That these rules be enforced in practice.
- That mechanisms exist to ensure the proper application of the rules by properly functioning institutions, and that mechanisms allow for departure from the rules as needed according to established procedures.
- That conflicts in the application of these rules be resolved through the binding decisions of an independent judicial or arbitral body.
- That there are known procedures for amending these rules when they no longer serve their purpose.

These requirements for the rule of law are not met within international forest regulation. There are no legally binding international forest rules.<sup>2</sup> The international forest rules that exist

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<sup>1</sup> International Development Legal Organisation, How does IDLO define the Rule of Law, International Development Law Organization <http://www.idlo.int/English/External/IPXfaqs.asp> at 28 January 2010.

are not legally binding (for example, the non-binding principles of the United Nations Forum on Forestry), nor are they voluntary in nature (that is, states can choose whether to comply or not). Compliance with voluntary international rules is dependent upon states perceiving a benefit attached to implementing such obligations. The lack of legally binding international forest rules, therefore, undermines the other requirements discussed above.

The legally non-binding, or voluntary, international forest rules which do exist are rarely enforced in practice. This is because states perceive no real benefits from implementing these obligations. From a cost-benefit perspective, the economic and political cost of implementing such initiatives outweighs the international political benefits and the environmental benefits. The institutional global forest governance arrangements are not functioning well. This is because the United Nations body charged with responsibility for forest regulation lacks authority and political support. This has led to a situation where a number of international institutions regulate forest areas, resulting in a regime that is fragmented. No international judicial body has examined the conflict in international forest obligations since they are not legally binding (and voluntary in nature) and, therefore, unlikely to be the subject of judicial determination. All the international forest institutions examined have processes that allow for the development of new forest policy. However, the gap lies in the inadequate implementation of existing or new forest policy.

At the individual state level, there are a number of jurisdictions which face difficulties in implementing the rule of law paradigm in relation to the use and management of forest resources. It is possible, generally, to categorise the rule-of-law issues for developed countries and for developing countries.<sup>3</sup> Developed countries face a number of rule-of-law challenges in forest regulation. For example, in Australia, the regulation of productive forest practices is achieved by non-binding codes of conduct or advisory policies.<sup>4</sup> The lack of legally binding rules concerning all forest practices leaves gaps in the regulatory process.<sup>5</sup> Furthermore, the practice of conserving protective forest values by placing areas under conservation status fails to create adequate management obligations for such areas.<sup>6</sup> There are institutional

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<sup>2</sup> Ronnie D Lipschutz, 'Why is there no international forestry law? An Examination of International Forestry Regulation, both Public and Private' (2000-2002) 19 *Journal of Environmental Law and Policy* 153.

<sup>3</sup> Another publication discusses this category as income-poor countries and income-rich countries. See James Magyer and Stephen Bass, *Policy that works for forests and people* (1999), 151.

<sup>4</sup> On the regulation of Australian forests see Stephen Dovers, 'Are forests different as a policy challenge' in David Lindenmayer and Jerry Franklin (eds), *Towards Forest Sustainability* (2003) 15.

<sup>5</sup> On the issue of instrument choice see John Bowers, 'Instrument choice for sustainable development: an application to the forestry sector' (2005) 7 *Forest Policy and Economics* 97. For a focus on Queensland's regime for managing forest resources see Jo Kehoe, 'Environmental law making in Queensland: The Vegetation Management Act 1999 (Qld) (2009) 26 (6) *Environmental and Planning Law Journal* 26.

<sup>6</sup> Per Angelstam 'Forest biodiversity management – the Swedish model' in David Lindenmayer and Jerry Franklin (eds), *Towards Forest Sustainability* (2003) 143, 159.

inefficiencies in forest regulatory bodies because of the large number of bodies involved – each one regulating a particular forest value. In terms of development and amendment of forest law there are often concerns related to sufficient stakeholder engagement and interaction in the law reform process.<sup>7</sup>

Developing countries face a number of other rule-of-law issues in forest regulation. In many instances there is a large gap between the forest laws on the paper and the practices carried out across forest areas.<sup>8</sup> This is related to a number of issues such as weak institutional capacity, corruption within government bodies, and the lack of impartial judiciary.<sup>9</sup> Forest-dwellers, or communities, do not have a voice and lack the ability to understand and enforce their forest rights. In general, it could be suggested that there are issues surrounding the transparency and accountability of practices and people responsible for creating and implementing forestry rules.

This thesis uses the terms ‘developed’ and ‘developing’ to recognise the two tiers of countries generally recognised by international environmental instruments. These terms are used throughout the thesis to demonstrate the different interests and perspectives of these two groups. It is noted that there is great diversity among countries in the ‘developed’ category as in the ‘developing country’ category and that these labels do not accurately reflect the broad range of economic, social and political interests of all parties within these categories. Furthermore it is possible to have conflicts of interest between countries in the same category. For example, Canada with a large tract of forest cover is likely to have a different perspective to the United Kingdom with a smaller tract of forest cover. Despite these limitations this thesis will use the well-established by probably outdated terms ‘developed’ and ‘developing’ to conveniently describe the different international legal obligations and policy interests between these two groups.

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<sup>7</sup> M Buchy, Shover and C Averill, *Understanding Public Participation in Forest Planning in Australia: How can we learn from each other?* Australian National University and Environmental Protection Agency, ANU Forestry Occasional Paper 99.2; and Jack Siry et al, ‘Sustainable forest management: global trends and opportunities’ (2005) 7 *Forest Policy and Economics* 551, 554-555.

<sup>8</sup> Tom Blomley and Acacia Consulting, *Evaluation of the work of the Forest Governance Learning Group 2005-2009*, International Institute for Environment and Development (IIED), 2009.

<sup>9</sup> Michael Richards, ‘Can Sustainable Tropical Forestry be Made Profitable? The Potential and Limitations of Innovative Incentive Mechanisms’, (2000), 28 (6), *World Development*, 1001, 1003.

## **2. Global Forest Responsibility and Justice**

### ***A. Determining responsibility and liability***

The management and use of the global forest estate involves a number of 'justice' related considerations.<sup>10</sup> There is a general global consensus that the reduction of global deforestation and forest degradation should be a priority. However, there is no global consensus on how such reductions should occur and who should ultimately bear responsibility or liability for such change. This thesis will discuss a number of international institutional approaches that all attempt to deal with aspects of sustainable forest management. Due to the central role that forests play in a number of economies (in combination with other strongly held anthropocentric human forest values), all of these institutions fail to assign liability or responsibility to individual states to address global deforestation and forest degradation.

To create a system assigning liability or responsibility to individual states to address the global deforestation and degradation, moral and ethical factors must be considered. Should those countries with large tracts of old growth forest areas be the parties ultimately responsible for conserving and protecting such areas? Does the location of the forest estate make that state responsible for the implementation of sustainable forest management? Should a system of sustainable forest management liability be based upon simple determinants, such as location and ownership, in assigning international liability and responsibility? Or should other factors, such as per capita consumption levels of forest products and previous levels of forest degradation, define liability? Would such an approach be compatible with other international environmental principles, such as common but differentiated responsibility and the polluter pays principle?

### ***B. Historical approach to liability***

The international concept of state sovereignty would suggest that states have authority and control over forest resources on their land.<sup>11</sup> So, should international responsibility for deforestation and forest degradation be attributed on similar grounds? This would mean that the holders of forest estate are made liable for the implementation of sustainable forest management practices. On first reading, such a simple analysis seemed justifiable. This type of reasoning is reflected in international forest commitments, which make sovereign states responsible for their sovereign forest resources.

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<sup>10</sup> On the issue of justice and climate change see Benjamin J Richardson et al (ed) *Climate Law and Developing Countries: Legal and Policy Challenges for the World Economy* (2009).

<sup>11</sup> See generally on this point Nico Schrijver, *Sovereignty Over Natural Resources: Balancing Rights and Duties* (1997).



Such an approach has, however, failed to deliver the implementation of sustainable forest management practices. Such an approach is not valid on practical grounds, because a significant proportion of the old growth forest is found in developing countries that lack the capacity to implement sustainable forest management. In addition, it is arguable that such an approach is not valid on ethical or moral grounds. Should states that still have the forest reserves be restricted from using their reserves, just because other states damaged their own forest reserves earlier?

Literature that emerged around the time of the Earth Summit depicts developed or industrialised nations taking the lead on the conservation, protection and enhancement of the global forest estate, while developing countries are portrayed as the parties unwilling to move on the forest issue unless due compensation and assistance are forthcoming.<sup>12</sup> No particular blame is placed upon either group. The literature describes a process whereby two legitimate arguments exist. For example:

“On one hand, it has been claimed that environmental protection must be given priority over economic development programmes because further neglect of the environment threatens all human life including that in the Third World; and on the other hand, it has been said that in the Third World human life is already threatened, in fact being extinguished, so that rapid development must have priority over environmental protection.”<sup>13</sup>

The first argument is made on the side of developed or industrialised nations that have a new appreciation for the value of old growth forest. Conversely, developing countries, many of which are battling a number of other serious, interrelated challenges (such as increasing population, food shortages, and a high incidence of poverty) wish to use their forest resources to improve the living conditions of their people.<sup>14</sup> The international response to such arguments was the creation of a non-legally binding forest instrument that made neither developed nor developing nations liable for implementing sustainable forest management practices. Similarly, developing countries were also relieved of any firm commitments concerning the use and management of their forest resources. As a result, there are no firm international legal commitments concerning forest use and management.

### ***C. Ecological justice, environmental justice and environmental racism***

There are a number of theories in existing literature that can be used to argue against imposing liability based upon sovereign ownership. Three closely related concepts are:

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<sup>12</sup>David Humphreys, *Forest Politics: The Evolution of International Cooperation* (1996).

<sup>13</sup>Geoffrey Hunt, ‘Is there a conflict between environmental protection and the development of the Third World?’ in Robin Atfield and Barry Wilkins (eds), *International Justice and the Third World* (1992) 117.

<sup>14</sup>Ibid, 119-140, for an examination of the various solutions to under-development from a market, democratic, green and socialist perspective.

ecological justice, environmental justice, and environmental racism. Bosselmann defines *ecological justice* as involving two distinct components. The first examines justice on the basis of the distribution of the environment among people – that is, access, quality, and quantity of environmental services and products people obtain. The second component examines the relationship between humans and the rest of the natural world. This component focuses more on ecocentric values.<sup>15</sup> *Environmental justice* is distinguished by only examining the first component – essentially, a distribution-focused analysis.<sup>16</sup>

In the United States of America, the term *environmental racism* is used interchangeably with the term *environmental justice*.<sup>17</sup> Environmental racism can be defined as:

“... racial discrimination in environmental policy-making and enforcement of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the presence of life threatening poisons and pollutants in communities of color, and the history of excluding people of color from leadership of the environment movement.”<sup>18</sup>

Environmental justice calls for the equitable utilisation of resources, procedural fairness, and a safe and healthy environment.<sup>19</sup> The environmental justice movement originated in the United States to address underlying inequalities between rich and poor residents and their corresponding local environmental conditions. The movement identified the inequitable burden that poor or coloured neighbourhoods had in hosting activities potentially dangerous to human health (e.g. nuclear power plants), which released high levels of pollutants, or which affected the surrounding local environmental conditions in a significantly negative way (e.g. processing and industrial centres). Specifically, the movement was concerned with addressing the issue of outsourcing of dirty, unsustainable and potentially dangerous activities into areas of poor or coloured communities.<sup>20</sup>

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<sup>15</sup> Klaus Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (2008), 79.

<sup>16</sup> Often in the environmental justice discussion, the issue of a human right to healthy environment emerges among. While human rights and environment are of course interrelated – this is not the focus of this discussion. See generally Meinhard Doelle, ‘Climate Change and Human Rights: The Role of International Human Rights in Motivating States to Take Climate Change Seriously’ (2004) 1 *Macquarie Journal of International and Comparative Environmental Law*, 179, and Chapter 4.

<sup>17</sup> Asghar Ali, ‘A Conceptual Framework for Environmental Justice based on Shared but Differentiated Responsibilities’ in Tony Shallcross and John Robinson (eds), *Global Citizenship and Environmental Justice* (2006), 41, 50.

<sup>18</sup> *Ibid.*

<sup>19</sup> Dinah Shelton, ‘Environmental Justice in the Postmodern World’ in Klaus Bosselmann and Benjamin Richardson (eds), *Environmental Justice and Market Mechanisms: Key Challenges for Environmental Law and Policy*, (1999), 21, 26.

<sup>20</sup> See generally Susan Cutter, ‘Race, class and environmental justice’ (1995) 19 (1) *Progress in Human Geography* 111; Manuel Pastor, Jim Sadd and John Hipp, ‘Which came first? Toxic Facilities, Minority Move-In, and Environmental Justice’ (2001) 23 (1) *Journal of Urban Affairs* 1; and Dorceta Taylor, ‘The Rise of the Environmental Justice Paradigm: Injustice Framing and the Social Construction of the Environmental Discourses’ (2000) 43 *American Behavioral Scientist* 508.

Government has, to some extent, taken the environmental justice movement in the United States seriously. This is evidenced by the introduction of the Draft Environmental Justice Strategy in 1996.<sup>21</sup> The strategy provides that “all Americans deserve clean air, pure water, land that is safe to live in and food that is safe to eat”. It has been suggested that justice in this sense equates to fair treatment, and that other issues such as past injustices, existing inequalities and the imbalance of wealth are omitted by the strategy.<sup>22</sup> The concerns raised by the domestic environmental justice movement in the United States are, of course, applicable to such inequalities that exist at the international level among nations.<sup>23</sup>

In the postmodern world, there are serious challenges to environmental justice. On the positive side, it is apparent that more people are living in democratic regimes than in any time in history, and free-market economies are becoming the norm. Faxes, phones and the Internet have made communication immediate and global. At the same time, climate change, deforestation, pollution and other environmental stresses are the consequences of enormous pressure placed on resources by an ever-increasing population, industrialisation, land conversion, urbanisation and rising consumption.<sup>24</sup> Schlosberg defines the global environmental justice movement as having four distinct components:

- justice as distribution
- justice as recognition
- justice as participation
- procedural justice and justice as capabilities and functioning.<sup>25</sup>

#### ***D. Justice as distribution***

The most common analysis of ‘justice’ is work concerning the concept of distributive justice.<sup>26</sup> The underlying theory supporting the concept of distributive justice is Rawls’s *theory of justice*.<sup>27</sup> Justice, in this sense, is associated with the distribution of goods within society. Distributional analysis can be undertaken from a number of perspectives, as identified by Weiss: environmental equity among countries; environmental equity within countries; and

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<sup>21</sup>Cutter above n19.

<sup>22</sup> Klaus Bosselmann, ‘Justice and the Environment: Building Blocks for a Theory on Ecological Justice’ in Klaus Bosselmann and Benjamin Richardson (eds), *Environmental Justice and Market Mechanisms: Key Challenges for Environmental Law and Policy*, (1999) 30, 31.

<sup>23</sup> David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (2007), 79.

<sup>24</sup> Shelton, above n18, 23.

<sup>25</sup> Schlosberg, above n22.

<sup>26</sup> Ibid, 3. Regarding the definition of distribution, see Robert Nozick, ‘Distributive Justice’, in Richard Epstein (ed) *Modern Understanding of Liberty and Property* (2000), 1 179.

<sup>27</sup> John Rawls, *A Theory of Justice* (1972).

efficiency of the international system in environmental equity.<sup>28</sup> In addition to these perspectives, the issue of distributional justice between present and future generations should also be considered.

Weiss discusses environmental equity among countries in relation to the allocation of resources between nations, responsibility and liability for pollution, and the international responsibility to ensure that activities under state jurisdiction or control do not cause harm to areas outside state jurisdiction or control.<sup>29</sup>

In the forest context, environmental equity among countries requires a new system of liability for the implementation of sustainable forest management (outlined below). In addition, this form of equity requires that the forest activities of one state do not cause harm outside the state's borders. Depending on the definition of harm, this could impose quite heavy restrictions on a state's forest practices.

Environmental equity within countries, according to Weiss, examines the equity that exists at the domestic level between poor people and environmental burdens.<sup>30</sup> This form of environmental equity is similar to the environmental justice movement discussed above. Weiss states:

“Some economic studies have suggested that the empirical relationship between environment and development is an inverted U-shaped curve, in which countries pollute the environment up to the point at which they become sufficiently industrialised to indulge their concern for protecting the environment.”<sup>31</sup>

This theory is known as the 'EKC theory' (environmental Kuznets theory). Kuznets hypothesised that income inequality first rises and then falls as economic development proceeds.<sup>32</sup> More recently, this theory has come under scrutiny as studies suggest that economic growth alone does not lead to sustainable development.<sup>33</sup> Improvements in environmental quality may, in reality, be indicators of the increased ability of consumers in

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<sup>28</sup> Edith Brown Weiss, 'Environmental Equity: The Imperative for the Twenty-First Century' in Winfried Lang (ed), *Sustainable Development and International Law* (1995), 17, 19-23.

<sup>29</sup> *Ibid*, 19.

<sup>30</sup> *Ibid*, 22.

<sup>31</sup> *Ibid*.

<sup>32</sup> David Stern, 'The Rise and Fall of the Environmental Kuznets Curve' (2004) 32 (8) *World Development* 1419. Also see an earlier articles which applies the theory in the forest context: David Stern, Michael Common and Edward Barbier, 'Economic Growth and Environmental Degradation: The Environmental Kuznets Curve and Sustainable Development' (1996) 24 (7) *World Development* 1151.

<sup>33</sup> Jill Cavigila-Harris, Dustin Chambers and James Kahn, 'Taking the "U" out of Kuznets: A comprehensive analysis of the EKC and environmental degradation' (2009) 68 *Ecological Economics* 1149.

wealthy nations to distance themselves from the environmental degradation associated with their consumption.<sup>34</sup>

Weiss discusses the efficiency of the international environmental legal regimes as an element of equity. She suggests that inefficient instrument negotiation processes and reporting regimes impact negatively on developing countries' abilities to participate in such processes. The concept of 'treaty congestion' is used to describe the overabundance of international environmental instruments and processes. Weiss argues that many countries, especially those with limited resources, complain about the demands that these negotiations place on them for staffing and funding in order to participate in negotiations.<sup>35</sup> In the forestry context, there is evidence of treaty congestion and regime inefficiency.<sup>36</sup>

Weiss has written extensively on the principle of intergenerational equity.<sup>37</sup> According to Weiss, this principle implies that humans are 'stewards' of the earth and its resources. It imposes obligations upon us to care for the planet, and gives us certain rights to use it.<sup>38</sup> The principle of intergenerational equity involves three components: the conservation of options, the conservation of quality, and the conservation of access.<sup>39</sup> Problems of equity between generations arise from: the depletion of non-renewable resources and the elimination of renewable resources; degradation in quality (of environmental resources such as air, water, soils); the loss of environmental services performed by natural resources; the loss of cultural resources; the lack of effective access to natural and cultural resources.

The stewardship concept has been in existence for a long time. References to the stewardship ethic and responsibilities are evident in both religious and philosophical texts.<sup>40</sup> From a legal perspective, the ethic of stewardship creates responsibilities for individuals, governments and private institutions. Looking at existing analysis on stewardship it can be concluded that:

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<sup>34</sup> Dale Rothman, 'Environmental Kuznets curves – real progress or passing the buck? A case for consumption-based approaches' (1998) 25 *Ecological Economics* 177.

<sup>35</sup> Weiss, above n27, 23-24.

<sup>36</sup> Radoslave Dimitrov, 'Hostage to Norms: states, Institutions and Global Forest Politics' (2005) 5 (4) *Global Environmental Politics*, 1.

<sup>37</sup> Edith Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity* (1989); and Edith Brown Weiss, 'The Planetary Trust: Conservation and Intergenerational Equity' (1984) 11(4) *Ecology Law Quarterly* 495.

<sup>38</sup> The principle of intergenerational equity finds its authority by reference to the concept of future interests in the environment in a number of international instruments. The following instruments recognise the interests of future generations: the Stockholm Declaration on the Human Environment; the 1972 London Ocean Dumping Convention; the 1973 Convention on International Trade in Endangered Species; the 1972 Convention Concerning the Protection of World Cultural and Natural Heritage; the 1992 Convention on Biological Diversity; the 2007 non-legally binding instrument on all types of forests; and the United Nations Framework Convention on Climate Change

<sup>39</sup> *Ibid.*

<sup>40</sup> J Passmore, *Man's Responsibility for Nature: Ecological problems and Western Traditions* (1974), 28-32.

- humans have a responsibility to take care of the environment;<sup>41</sup>
- humans have a responsibility to pass on to their descendants a natural environment that is more fruitful by their efforts;<sup>42</sup>
- stewardship involves a move from narrow individual interests towards wider common interests (the wider common interest being a healthy environment).<sup>43</sup>

The traditional approach to environmental regulation is an anthropocentric approach. This approach places humans as the central focus of the universe and views and interprets everything in terms of human experience and values. This means that human desires and interests are placed above all other interests in existence. Using forests as an example, forest goods and services have generally only been attributed value when humans attach value to each individual good or service from the forest. Generally speaking, forests were previously valued for their economic benefits only. This approach to forest valuation is on the way out, as the list of forest values and services recognised by humans grows longer. Humans have now realised that they are dependent upon the earth and its natural resources for survival. Change is in the air. People are now beginning to accept that reform needs to take place in order to preserve the environment and, ultimately, preserve humanity.<sup>44</sup> This knowledge has resulted in a growing recognition of the intrinsic value of the natural world – that is, valuing the earth and its resources for their own sake, as opposed to valuing them in relation to human needs. This recognition of intrinsic worth is a step in the right direction. The legal system needs to create responsibilities and duties to protect the earth and its natural resources for their intrinsic value.<sup>45</sup>

The stewardship ethic reiterates that humans are only temporary creatures on the earth. As temporary owners and users of the earth, they have a responsibility to take care of it for future generations. Stewardship requires that the current generation fulfil a caretaker position that considers and acts with thought for the future. Even though a stewardship ethic is not prevalent in environmental regulation as yet, there is great recognition and support for the principle within society.

“Fortunately, the notion that each generation holds the earth as a trustee or steward for its descendants strikes a deep chord with all cultures, religions and nationalities. Nearly all human

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<sup>41</sup> Douglas Fisher, *Australian Environmental Law* (2003), 7.

<sup>42</sup> G Morgan, ‘The Dominion of Nature: Can law embody a new attitude?’ (1993) 18 *Bulletin of the Australian Society of Legal Philosophy* 43, 59.

<sup>43</sup> M Evans, *Principles of Environmental and Heritage Law* (2000), 84.

<sup>44</sup> Joan McGregor, ‘Property Rights and Environmental Protection: Is this land made for you and me’ (1999) *Arizona State Law Journal*, 391,392.

<sup>45</sup> Many examples of intrinsic protection legislation or legal instruments exist at the international level – for example, the Convention on Biological Diversity. However, like all international legal instruments, it is debatable as to whether these international instruments create responsibilities and duties.

traditions recognise that we, the living are sojourners on earth and temporary stewards of our resources.”<sup>46</sup>

Rawls’s ‘difference principle’ requires the law to take into account the different circumstances and related differences when creating and implementing law in a society. The difference principle recognises ‘disadvantage’ within society. It therefore recognises that different treatment for different individuals or groups will serve more fairly than a principle that treats everyone equally. The implementation of the difference principle would be recognition of advantage and disadvantage among individuals by the law and the implementation of strategies to reduce such inequalities. Distributive justice, therefore, implies that the law should respond to disadvantage. It is proposed that distributive justice in the global environmental realm concerns the distribution of benefits and burdens of environmental resources among nations. It implies that relevant dissimilarities between the subjects of the law warrant special attention or special treatment.<sup>47</sup> Therefore, nations suffering disadvantage – which may be in the form of economic, social, or environmental disadvantage – should be assisted by international law principles to overcome the practices leading to such disadvantage.

The application of distributive justice principles in imposing liability for the implementation of sustainable forest management practices would result in a different regime, as opposed to a liability system imposed on the basis of sovereign ownership of the resource. Distributive justice principles would require international forest law to respond to the disadvantage that exists among different nations in relation to the capacity to implement sustainable forest management practices. According to such principles different standards and accompanying liability would be created for states (determined upon the existence of disadvantage). The international climate change regime has created a system that is reflective of distributive justice principles and the international legal principle of ‘common but differentiated responsibility’. This has been achieved by increasing the liability of industrialised nations to reduce emissions, and requires industrialised countries to assist developing countries in implementing emission reduction clean energy development.<sup>48</sup>

It is proposed that, in the international forestry context, different standards should be created for developed and developing countries. This would be an example of applying the

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<sup>46</sup> Weiss, above n27, 20.

<sup>47</sup> Achala Chandani, ‘Distributive Justice and Sustainability as a Viable Foundation for the Future Climate Regime’, (2007), 2 *Carbon and Climate Law Review*, 152, 156.

<sup>48</sup> *Ibid*, 152.

international environmental legal principle of ‘common but differentiated responsibility’.<sup>49</sup> Disadvantage in this instance would be based upon a country’s OECD status. Developed countries would be expected to implement sustainable forest management commitments. Such a system would allow for the development of an internationally agreed set of sustainable forest management criteria and practices. Developing countries would, similarly, negotiate a series of targets and goals in relation to the implementation of sustainable forest management. The development of an international forest regime that creates standards based upon capacity may prove to be a useful tool in moving forward the international forest agenda.<sup>50</sup> In addition to two sets of globally agreed standards for sustainable forest management, a new system of liability should also be imposed.

This new system of liability would need to recognise the role that developed countries play in the promotion of unsustainable timber practices. Such an approach is consistent with the international environmental principle ‘polluter pays’.<sup>51</sup> The international timber market is one of the significant drivers of global deforestation;<sup>52</sup> the main consumers of timber products are developed countries.<sup>53</sup> Therefore, it would seem appropriate that not only those countries that produce the timber, but also those countries that consume it should bear liability for the implementation of sustainable forest management practices. Such a system of liability could be compared with the international ‘polluter pays’ principle.

Furthermore, a system of liability for the implementation of sustainable forest management practices should also recognise that countries with high forest cover will bear a disproportionate responsibility for the implementation of agreed practices. Many of the benefits of sustainable forest management practices may be enjoyed at the local level (for example, improved soil and water quality), but a number of benefits would also be enjoyed by the international community at large (for example, biodiversity and air quality). The current system of imposing liability for sustainable forest management does not take into account

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<sup>49</sup> Ibid, 154. Common but differentiated responsibility recognises: the common responsibility of countries to protect the environment; the differing contributions of countries to environmental issues; and the differences in the abilities of countries to prevent, reduce and control the threat of environmental degradation.

<sup>50</sup> For further information on the politics and difficulties of the international forest regime in creating enforceable targets and standards see Chapter 4.

<sup>51</sup> This principle requires that the polluter bears the costs of remediation. See Chandani, above n 65 at 154. Pollution in this regard is deforestation, and the cost of remediation could be a range of activities such as the cost of restoring forest land, implementing sustainable forest management, investing in the conservation of forest land.

<sup>52</sup> Dirk Bryant, Daniel Nielsen and Laura Tangle, *The Last Frontier Forests: Ecosystems and Economies on the Edge*, World Resources Institute (1997).

<sup>53</sup> International Tropical Timber Organization, *Annual Review and Assessment of the World Timber Situation* (2008), 10.



these justice-related issues. There is a need to create a system of liability to make all countries responsible for the implementation of sustainable forest management principles.

In summary, the international sustainable forest management regime could be improved if it adopted a distributive justice approach and:

- created two sets of sustainable forest management standards, reflecting the capacity of developed and developing countries' abilities to implement such practices;
- created a system of liability which acknowledges that the timber consumption of developed countries contributes significantly to unsustainable timber practices in developing countries; and
- created a system that shares liability for the implementation of sustainable forest management practices among the global community, reflecting the benefits that the global community obtains as a result of sustainable forest management practices.

#### ***E. Justice as recognition***

Some authors argue that the concept of justice involves more than merely a distributional analysis.<sup>54</sup> Young argues that while theories of distributive justice offer models and procedures by which distribution may be improved, none of them thoroughly examine the social, cultural, symbolic and institutional conditions underlying poor distributions in the first place.<sup>55</sup> In support of this, Fraser argues that "justice today requires both redistribution and recognition, as neither alone is sufficient."<sup>56</sup> We ought to resist the presentation of the politics of redistribution and the politics of recognition as mutually exclusive alternatives. Instead, we should concentrate our efforts on searching for an alternative framework that can accommodate both types of demand. Recognition of rights is of crucial importance in the environmental context; such rights are often created as property-based rights.

In the international forestry context, there needs to be recognition of the events and circumstances that have landed our global forest estate in its current condition. It is estimated that around one-half of the earth's original forest cover is gone, much destroyed within the past three decades.<sup>57</sup> The *Last Frontier Forests* assessment found that frontier forests (that is, large tracts of relatively undisturbed forest areas) are at threat from a number of human-induced activities. Logging presents the biggest threat to frontier forests, affecting more than

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<sup>54</sup> Schlosberg, above n22.

<sup>55</sup> Iris Young, *Justice and the Politics of Difference* (1990), 1.

<sup>56</sup> Nancy Fraser, *Justice Interruptus* (1997), 1; and Ingrid Robeyns, 'Is Nancy Fraser's Critique of theories of Distributive Justice justified', (2003), 10 (4), *Constellations*, 1.

<sup>57</sup> Bryant et al, above n51.

70% of the world's threatened frontiers.<sup>58</sup> Energy, mining and new infrastructure development affect around 40% of all frontier forest. One-fifth of the world's threatened frontiers are directly endangered by farmers who clear forests for cropland and pasture; while excessive vegetation removal, overhunting, and conversion to plantation (with the introduction of non-native species), also significantly affect the health of frontier forests.<sup>59</sup> It is again proposed that the majority of these damaging activities occur for the benefit of developed or rich countries that can afford to consume the products generated from such activities.<sup>60</sup> Aligned with theories of justice that focus on justice as recognition, liability for the implementation of sustainable forest management principles should be attributed on the basis of recognising those who are ultimately responsible for the current patterns of unsustainable forest use (i.e. those in wealthy countries, with high levels of consumption of forest products, clearing of land for agricultural purposes – again, wealthy countries are the ones who consume these goods).

Forests raise a number of other justice issues as well. One of these should be the recognition of the high correlation between those living in densely forested areas and the high levels of poverty and marginalisation of these groups. The World Bank has carried out a number of studies examining this relationship, and has found that people living in such forest areas are usually fringe dwellers of society – the poorest of the poor being forced to live hand to mouth from forest resources.<sup>61</sup> People in such circumstances should not bear responsibility for the implementation of sustainable forest management practices. Another significant issue is the need to recognise the interests and rights of indigenous or customary forest owners. As discussed in the property rights analysis, many international institutions are working towards improving the forest tenure security arrangements for such groups. Therefore, in summary, it can be proposed that justice as recognition in the international forestry context could be used as a basis to argue that:

- consumption patterns of forest products should bear some relation to the liability imposed for the implementation of sustainable forest management practices;
- the circumstances that have pushed certain 'forest dwellers' into their current position should be recognised by the creation of a system to assist them with the implementation of sustainable forest management practices;

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<sup>58</sup> Ibid, 15.

<sup>59</sup> Ibid 16.

<sup>60</sup> In general, support of the principle that the majority of the world's consumption of natural resources is enjoyed in rich nations see Norman Myers, 'Consumption in relation to population, environment and development' (1997) 17 *The Environmentalist* 33 and Alex de Sherbinin et al, 'Population and Environment' (2007) 32 *The Annual Review of Environmental Resources* 345.

<sup>61</sup> A Angelson and S Wunder, *Explaining the forest poverty link: key concepts, issues and research implications* (2003); and William D Sunderlin, Sonya Dewi and Atie Puntodewo, 'Poverty and forests: Multi-country analysis of spatial association and proposed policy solutions', *Occasional Paper No 47*, Centre for International Forestry Research, 2007.

- because justice as recognition requires the law to recognise the legitimate claims of indigenous or customary owners of forest areas, it follows that recognition, tenure and/or land rights should be secured for such groups.

#### ***F. Justice as participation and procedural justice***

Weiss and Schlosberg agree that an element of justice relates to opportunities for meaningful participation, administrative justice and capacity for participation in the creation of international legal regimes.<sup>62</sup> This form of justice could be classified as justice within the governance process. While there are a number of ways in which governance related considerations could be improved in the international forest regime, it is proposed that this form of justice is already recognised as being important with international forest regimes. For example, stakeholder participation and consultations is already part of all international regulatory processes. Issues concerning governance and stakeholder engagement are discussed in more detail in chapter five.

### **3. Conclusion**

Current literature views the responsibility for deforestation and forest degradation as a global responsibility. It seems that sovereignty-based responsibility for the implementation of sustainable forest management practices has dissipated due to an understanding that such an approach is unworkable. This recognition can most likely be attributed to a number of developments in international environmental law. There is an increasing recognition of the interconnectedness and dependence of nations on one another. It is now no longer seen as appropriate to think about environmental issues as the problem of an individual nation. These developments support the justice arguments made in this chapter.

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<sup>62</sup> Weiss, above n27 at 23 and Schlosberg above n22 at 89-91.

## **CHAPTER THREE:**

### **Legal Concepts Creating Forest Rights and Limitations**

#### **1. Introduction**

This chapter explores the effect of two legal concepts on forest regulation: state sovereignty and property. Both of these concepts provide rights. However, the creation of international obligations and environmental regulation has resulted in restrictions being placed on the rights attached to these concepts. Sovereignty provides rights to states – both externally within international negotiations, and also internally to self-govern. The concept of property provides rights to individuals. The law attributes a range of different rights to different property interests. This chapter will examine the following four issues:

- Rights arising from sovereignty and its impact on international forest law
- The effect of property rights on forest regulation
- Limitations of sovereignty on the development of international forest law
- Limitations on rights associated with property

#### **2. Rights Associated with Sovereignty**

##### ***A. State sovereignty and forest regulation***

The *Forest Principles 1992* (Rio Forest Principles) illustrate the significance of state sovereignty in international negotiations concerning forestry. The first two principles outline the rights and responsibilities of states in relation to forest use and management. The *Forest Principles 2007*<sup>1</sup> reaffirm the message concerning sovereignty of the *Forest Principles 1992*, in principle 1(b). In addition, the *International Tropical Timber Agreement* of 1994<sup>2</sup> in principle 1 also reaffirms the sovereignty provision of the Rio Forest Principles.

Principle 1(a) of the *Forest Principles 1992* provides:

“States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies and have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”<sup>3</sup>

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<sup>1</sup>United Nations Forum on Forestry, *Non-legally binding instrument on all types of forests* E/CN.18/ 2007/8.

<sup>2</sup>International Tropical Timber Agreement 1994 opened for signature 26 January 1994, UNTS 33484 (entered into force 1 January 1997).

<sup>3</sup>This provision is very similar to the wording of Article 29 of the Convention on Biological Diversity, opened for signature 5 June 1992, UNTS 30619 (Entered into force 29 December 1995).

Before analysing this description of sovereignty, it is worthwhile noting that the *Forest Principles 2007* excludes some of the statements concerning sovereignty in *Forest Principles 1992*. Principle 2(a) of the *Forest Principles 1992* provides:

“States have the sovereign and inalienable right to utilize, manage and develop their forests in accordance with their development needs and level of socio-economic development on the basis of national policies consistent with sustainable development and legislation, including the conversion of such areas for other uses within the overall socio-economic development plan based on rational land-use policies.”

This statement on sovereignty actually provides for and allows for further deforestation. It confirms that states have the inalienable right to utilise, manage and develop their forest areas. This inalienability aspect suggests that states are not able to delegate or transfer power to regulate forest use and management outside of the state – so, standards and rules concerning forest use and management prescribed by international institutions would be inconsistent with this statement. Of additional concern is the statement of approval of further development in forest areas, with no qualifying statement as to the nature of this development. This statement clearly supports views expressed by pro-development states at Rio de Janeiro. This statement has, of course, been of no great effect in international forestry, because the Rio Forest Principles have had minimal impact on the domestic laws of states.

### ***B. The meaning of ‘sovereignty’***

The sovereignty principle can be broken down into two separate components. Firstly, states have the sovereign right to exploit their own resources in accordance with national policy. Secondly, states must ensure that actions occurring within national boundaries do not produce negative environmental outcomes outside of them. These two components will be discussed separately, and then the relationship between the two explored further.

Litfin<sup>4</sup> discusses “unbundling” the concept of ‘sovereignty’, which involves dismantling and studying the various terms associated with defining it. This unbundling exercise identifies a list of terms linked with the meaning of ‘sovereignty’. Terms often connected with sovereignty include ‘territory’, ‘autonomy’, ‘authority’, ‘control’ and ‘population’. In addition to these terms, any analysis of sovereignty also needs to consider the rights, capacities and responsibilities in three spheres: those under a state’s jurisdiction; those under other states’ jurisdictions; and those under a common jurisdiction.<sup>5</sup> Turning to the terms commonly linked with sovereignty, further discussion is required to understand the concept of sovereignty.

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<sup>4</sup> K Litfin, ‘The Greening of Sovereignty: An Introduction’ in K Litfin (ed) *The Greening of Sovereignty in World Politics*, 1, 2.

<sup>5</sup> Ibid.

The term 'territory' in connection with sovereignty is referring to a state's physical boundary. A physical boundary is definable in reference to existing borders. Within these borders, states are able to regulate and attempt to control the activities that take place. 'Autonomy' implies independence and the right to self-government. This gives states freedom in their choice of government and freedom in their regulatory frameworks. Importantly, state governments must be appointed by state processes and not imposed or influenced by outside powers or interests. 'Authority' gives states power to act; generally, authority to act is achieved through responsible, representative and accountable government. Authority means that states' regulatory frameworks are usually followed due to a belief in their ability to direct internal activities. 'Control', in this sense, relates to the ability to effectively regulate and dictate the state's legal framework. Control is an essential element of governance: without control over the activities inside state borders, the regulatory framework loses authority, and the reputation of the state's capacity to direct is weakened. 'Population' refers to all people within a state's boundary. However, the population comprises not just citizens, but also the people responsible for the operation of government. Governments, ideally, represent and implement political and legal policies that benefit the citizens of the state. The population is the group affected by legal frameworks – they are the group that must comply with the directions of the government.

### ***C. Rights associated with sovereignty***

This analysis of the terms associated with 'sovereignty' can be assembled to enrich its meaning. Sovereignty must be exercised over a clearly defined area, must be independent, must have authority and the ability to act, must have the requisite control to carry out the necessary management of the state – and these acts must be carried out over an identifiable population. Sovereignty, therefore, implies a plenary of powers to organise and control activities within state boundaries over state citizens. The power is then exercised in three different realms: under the state's jurisdiction, under other states' jurisdictions, and under a common jurisdiction.

The exercise of sovereign rights within the state's jurisdiction fits with the explanation of sovereignty offered above. That is, the freedom to exercise power and control over state citizens within state boundaries. A more complex exercise of sovereign powers involves states exercising sovereignty within other states. This could be in the form of recognition from other jurisdictions acknowledging and respecting the sovereignty of the state – or this could occur by way of agreement: State A may accept State B's sovereignty in State A as part of some international agreement – or an activity which takes places in State A may positively or negatively affect some aspect in State B. Finally, of relevance to international law and

obligations, is the operation of state sovereignty within common jurisdictions. The manner in which state sovereignty is exercised in international proceedings is distinctive from the sovereignty exercised within state boundaries. Under the common jurisdiction, (a good example being conferences held at the international level), each state is interested in promoting its own national position on the issue in question. Within the international forestry arena, each state is coming together to protect its sovereign rights in relation to forestry, while accepting that some common standards might be created between all state parties concerning forests. This acceptance of common standards could result in common responsibilities being shared by all states party to the international agreement. These new responsibilities might either maintain state sovereignty in cases where the international obligations are similar to existing domestic legislation, or weaken it where states have to adjust existing domestic laws.

### **3. The Effect of Property Rights on Forest Regulation**

#### ***A. The relationship between forests and property***

The rights and duties associated with property law underpin all environmental regulation in non-customary legal systems. This is because property law defines use, access and other necessary rights related to the environment. The legal concept of property is used as an instrument to recognise and allow for control. Fisher proposes the following legal definition of property:<sup>6</sup>

“... the relationship between the owner of the object or the asset, and the object or asset itself. The owners – the holders of the rights associated with ownership – are generally acknowledged to have available to them a number of rights: to use, not to use, to permit someone else to use and to alienate.”

Property law, therefore, significantly influences the use and management of forest areas. Property rights in relation to interests in the environment are the ultimate right that a forest user can obtain. This is because property rights are generally considered as being secure in form. Additionally, property rights give the holders of such rights a broad spectrum of rights that are not as limited as rights given in other forms (such as under statute or contract). Some benefits associated with property rights can include constitutional protection such as exists in the United States Constitution against interference with private property, the ability to prevent trespass, conversion or nuisance under the common law, to mortgage the thing in question, to convey it freely or split it between present and future interests, to receive special treatment under federal or state tax laws, and to impose or avoid trade constraints.<sup>7</sup>

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<sup>6</sup> Douglas Fisher, *The Law and Governance of Water Resources: The Challenge of Sustainability* (2009), 67.

<sup>7</sup> Sandra Zellmer and Jessica Harder, ‘Unbundling Property in Water’ (2007-2008) 59 *Alabama Law Review* 679, 682.

On a broader level, it has been suggested that private property plays a significant role in society.<sup>8</sup> For example, Hegel believes that ownership is extremely important to individuals, since it is only through owning and controlling property that one can “embody” one’s will in external objects and, thereby, start the process of transcending the subjectivity of one’s immediate existence. An individual develops his or her personality by controlling, using or working on external objects.<sup>9</sup> According to Kant, it is necessary for individuals to have control over external objects, as this respects individuals’ autonomy.<sup>10</sup> Rawls has suggested that the existence of personal property allows for a sufficient material basis for a sense of personal independence and self-respect, both of which are essential for the development and exercise of the moral powers.<sup>11</sup> McGregor suggests that there are compelling reasons for recognising the existence of an institution of property rights. She suggests that private ownership is necessary to protect and enhance individual self-determination and autonomy, including the ability to accomplish future projects, to autonomously develop one’s occupation, to promote independence in a democratic nation and to foster human happiness.<sup>12</sup>

There is a growing realisation that insecure property rights are a key underlying cause of forest degradation.<sup>13</sup> Property rights to forest areas are often contested, overlapping or unenforceable and a significant proportion of the global forest estate is plagued by confusion and insecurity. This insecurity acts to undermine sustainable forest management imperatives – for, without secure rights, forest holders have few incentives and often lack the legal status to invest in managing and protecting their forest resources.<sup>14</sup> While secure property rights cannot ensure sustainable protection and investment in an asset, they are often a necessary condition.<sup>15</sup> Furthermore, the revolution in market-based regulation through the advent of carbon trading and payment for ecosystem services requires the development of secure and clearly defined property rights.<sup>16</sup> This is yet another reason to advocate for clear and secure property rights to be attributed to interests in forest values or services.

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<sup>8</sup> Joan L McGregor, ‘Property Rights and Environmental Protection: Is this Land Made for You and Me?’ (1999) 31 *Arizona State Law Journal* 391.

<sup>9</sup> Georg Wilhelm Friedrich Hegel, *Hegel’s Philosophy of Right* (T.M. Knox translation 1967), 37-41.

<sup>10</sup> Immanuel Kant, *The Metaphysical Elements of Justice – Part 1 of the Metaphysical Morals* (John Ladd translation 1965), 76-77.

<sup>11</sup> John Rawls, *A theory of Justice* (1972), 289.

<sup>12</sup> McGregor, above n8, 422.

<sup>13</sup> Jeffrey Sayer et al, *Local Rights and Tenure for Forests: Opportunity or Threat for Conservation?*, Rights and Resource Initiative (2008).

<sup>14</sup> Andy White and Alejandra Martin, *Who owns the World’s Forests? Forest Tenure and Public Forests in Transition*, Forest Trends (2002).

<sup>15</sup> Sayer et al, above n13.

<sup>16</sup> See Robyn Eckersley (ed) *Markets, the State and the Environment Towards Integration* (1995) and Steven Dovers and Su Wild River, *Managing Australia’s Environment* (2003), 504-506.



The existence of property rights over natural resources is often justified in reference to Hardin's tragedy of the commons theory. This theory suggests that when things are left open to the public they are wasted by overuse or underuse. No one wishes to invest in something that may be taken from him tomorrow, and no one knows whom to approach to make exchanges. All resort to snatching up what is available for 'capture' today, leaving behind a wasteland.<sup>17</sup> Therefore, it is believed that private property rights provide an incentive for better management of natural resources areas. The incentive comes in the form of long-term secure and transferable rights in forest property. Where rights to the environment are secure and transferable, they provide holders of such rights with the certainty that their rights will be valuable in the future. Such certainty provides an incentive to rights holders to manage rights so as to increase their economic value.

If it is accepted that secure property rights improve forest conditions,<sup>18</sup> it then becomes necessary to examine the different forms of property holdings. In the forestry context, two forms of holdings are generally discussed. These are public holdings of forest areas and private holdings of forest areas. Public holdings include forest land that is held by central, regional or local governments.<sup>19</sup> The public category is further divided into two subcategories: lands administered by government entities; and land set aside or reserved for local communities, including indigenous groups on a semi-permanent but conditional basis. Private holdings can be described as rights over specific areas that cannot be terminated unilaterally by a government without some form of due process and compensation. Private holdings of land can also be subdivided into two categories: forest areas owned by indigenous and other local community groups; and those owned by private individuals and firms.

The majority of the world's forests are held under public holding arrangements,<sup>20</sup> with the majority of forest holdings being held by government bodies. In 2002, 77% of the global forest estate was administered by government, 4% reserved for community and indigenous groups, 7% held under private community indigenous arrangements, and 12% held under individual or private holdings.<sup>21</sup> Globally there is a shift towards increased private ownership,<sup>22</sup> with 2009

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<sup>17</sup> Carol Rose, 'The Comedy of the Commons: Custom, Commerce and Inherently Public Property', (1986), 53, *The University of Chicago Law Review*, 711, 712.

<sup>18</sup> In general support of this see Anne Larson et al, *Tenure Rights and Beyond: Community Access to Forest Resources in Latin America*, Centre for International Forestry Research (2008), and Bob Fisher, Cor Veer and Sango Mahanty, *Poverty Reduction and Forests: Tenure, Market, and Policy Reforms*, Rights and Resource Initiative (2008).

<sup>19</sup> This is the definition adopted by White and Martin. See White and Martin, above n14, 4.

<sup>20</sup> Ibid. See also studies conducted by William Sunderlin, Jeffrey Hatcher and Megan Liddle, *From Exclusion to Ownership? Challenges and Opportunities in Advancing Forest Tenure Reform*, Rights and Resource Initiative (2008), and Jeffrey Hatcher and Luke Bailey *Tropical Forest Tenure Assessment: Trends, Challenges and Opportunities*, Rights and Resource Initiative (2009).

<sup>21</sup> White and Martin, above n14, 7 (these figures have changed slightly).

figures showing global forest tenure as 65% administered by government, 4% reserved for community and indigenous groups, 18% held under private community indigenous arrangements, and 13% held under individual or private holdings.<sup>23</sup> It has been hypothesised that this shift is occurring for two main reasons: first, there is increased recognition that official forest tenure systems discriminate against the rights and claims of indigenous people and local communities; and second, there is growing evidence to suggest that governments have not been good stewards for public forest areas.<sup>24</sup>

### **B. The legal concept of property**

All international institutions and many international forest instruments recognise the important role that secure tenure and property rights play in achieving sustainable forest management.<sup>25</sup> The terms ‘property’ and ‘tenure’ are used interchangeably in international institutions. The legal definition of ‘property’ and the definition of ‘tenure’ differ from what other disciplines recognise as property- or tenure-based rights.<sup>26</sup> It is crucial to understand the legal definitions, because it is the legal definitions that create rights in forest areas. This section will examine the legal definition of property and its ramifications for forest property holders.

The legal definition of ‘property’ is commonly misunderstood.<sup>27</sup> The term is often used in non-legal disciplines to correspond with the concept of ownership.<sup>28</sup> This analysis, therefore, examines the item or thing that is owned. By way of example, the ‘thing’ in the forest context may be land upon which the forest exists, or it may be the individual trees. Under this interpretation of property, ownership is seen as the ultimate right. The legal definition of property, however, recognises that a number of rights may arise as a result of the property relationship and, as such, the legal definition tends to focus on the nature of the rights that attach to the property interest. In essence, it can be proposed that the term ‘property’ is used

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<sup>22</sup> Sunderlin et al, above n20 and Hatcher and Bailey, above n20.

<sup>23</sup> Hatcher and Bailey, above n20.

<sup>24</sup> White and Martin, above n14, 7-8.

<sup>25</sup> William Sunderlin, Jeffrey Hatcher and Megan Liddle, *From Exclusion to Ownership? Challenges and Opportunities in Advancing Forest Tenure Reform*, Rights and Resource Initiative 2008.

<sup>26</sup> For example in an economist’s language, the phrase ‘property right’ is typically little more than a synonym for ‘ownership’ or perhaps possession. See Anthony Scott, *The Evolution of Resource Property Rights* (2008), 4.

<sup>27</sup> See D E Fisher, ‘Rights of property in water: confusion or clarity’ (2004) 21 *Environmental and Planning Law Journal* 21(3). pp. 200-226, where it is stated: “It is axiomatic that linguistic precision is essential for an effective and enforceable regime of law. Yet words are often as much a source of confusion as of clarity. This is particularly true of the word ‘property’. The word has assumed political, economic and cultural as well as legal perspective over the years. These distinctive perspectives may well conflict”.

<sup>28</sup> A search of the major online dictionaries confirms that property is generally defined by its ability to be owned.

commonly to describe the ‘thing or item’, but in a legal sense it is used to describe the ‘nature of the rights’ that arise from that particular property relationship.<sup>29</sup>

This means that different rights arise for different property relationships.<sup>30</sup> For example, the same rights are not needed for the ownership of a forest as compared to the ownership of a motor vehicle.<sup>31</sup> Rights in relation to natural resources are different from the rights of personal property, as the individual rights in natural resources have the potential to impact upon other individuals’ property rights and, more broadly, upon public interest rights. Therefore, rights attaching to interests in natural resources tend to be more restricted than rights attaching to items of personal property.

The traditional approach to describing the legal definition of property is the ‘bundle of rights’ approach.<sup>32</sup> The bundle of rights analysis merely examines the individual rights associated with the property holding. It has been suggested that the bundle of rights metaphor fails to assess either the character of the thing in question or the nature of the human relationship with it.<sup>33</sup> Arnold has suggested a new metaphor to describe property, the “web of interests” paradigm. This approach places property at the centre of the web and examines relationships with the things and incidents of private ownership as well as public and communal rights from the internal strands of the web and surrounding webframe.<sup>34</sup> In the forestry context, ‘the bundle of rights approach’ only examines the nature of an individual’s rights (the right to harvest, right of entry, and other relevant rights). This is clearly not a sufficient method of analysis because it is possible to have a number of competing rights over forest areas – and the bundle of rights paradigm does not recognise the existence of competing or compatible interests in forest land.<sup>35</sup> The web of interests paradigm is more useful in the forest context, because it places the forest at the centre of the web and then examines the interests and rights of all holders over the forest area.

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<sup>29</sup> See generally on this point Armen Alchian and Harold Demsetz, ‘The Property Right Paradigm’ (1973) 33, *The Journal of Economic History* 16, 17-18.

<sup>30</sup> In support of this statement see McGregor, above n8, 423. This view conflicts with property absolutist theorists who believe in absolute property rights which include rights to exclusive use, disposition, and full alienability. See generally on this point: Richard Epstein, *Takings: Private Property and the Power of Eminent Domain*, (1985).

<sup>31</sup> For a discussion on the development of rights to suit the commodity, see: Audun Sandberg, ‘Property rights and ecosystem properties’, (2007), 24, *Land Use Policy*, 316.

<sup>32</sup> This approach is not necessarily ideal, but is suggested to fill a ‘vacuum’ to describe legal property relations. See: JE Penner, ‘The Bundle of Rights Picture of Property’, (1995-1996), 43, *UCLA Law Review*, 711.

<sup>33</sup> Zellmer, above n7, 684.

<sup>34</sup> Craig Anthony Arnold, ‘The Reconstitution of Property: Property as a web of interests’, (2002), 26, *Harvard Environmental Law Review*, 281, 291-295.

<sup>35</sup> See: John Sheehan and Garrick Small, ‘Biota and the Problem of Property’, (2005), 22, *Environmental and Planning Law Journal*, 158, which discusses some of the issues with the bundle of rights approach and new biota property challenges.

Zellmer and Harder take this web approach one step further and suggest that the starting point should be consideration of whether property exists in the first place.<sup>36</sup> In relation to recognising property in natural resources, it is necessary to examine whether the resource is capable of being classified as property. This type of analysis requires us to identify and re-examine the values that society associates with property interests.<sup>37</sup> This thesis supports Zellmer and Harder's approach, believing that the starting point should be an examination of whether the item in question is capable of being recognised as property.

McGregor suggests that land ownership and natural resource ownership should include a duty of stewardship. A stewardship duty would require the holder to take care of the land, preserve it for the sake of future generations, and avoid waste and destruction.<sup>38</sup> In support of this, McGregor quotes Leopold: "We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect".<sup>39</sup>

It is suggested that this stewardship duty should evolve into a set of landholder duties and responsibilities. Holders of property interests are well aware of the rights that they have received as part of their property holdings. However, society needs to evolve to a point where it is accepted that with these rights comes a set of interrelated environmental responsibilities.<sup>40</sup> To some extent, the advent of modern environmental regulation and management plans is consistent with the concept of property holder rights and responsibilities. However, the relationship between property rights and responsibilities needs to be made more evident. Attaching responsibilities to property rights will lead to improved environmental outcomes. The challenge will be finding a mechanism for making such a fundamental change more palatable to society at large.

### ***C. Legal property characteristics***

The starting point for legal analysis concerning property interests should be the seemingly simple question: is the thing in question capable of being recognised as property?<sup>41</sup> If the thing is capable of being recognised as property, then legal recognition and legal rights will accrue to the holder of the property interest. If the thing is not capable of being recognised as property,

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<sup>36</sup> Zellmer and Harder's analysis examines the nature of property rights in water.

<sup>37</sup> The scarcer the resource the tighter the enforcement, as long as the resources are in abundance, societies find no need to invest attention in them. See Kant, above n10.

<sup>38</sup> McGregor, above n8 at 434.

<sup>39</sup> *Ibid*, 391; and Aldo Leopold, *A Sand Country Almanac* (1966) xviii–xix.

<sup>40</sup> This idea emerged from a number of papers and discussions that took place at a Property Rights and Sustainability Conference in 2009. The conference details are Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges, The University of Auckland, New Zealand, 16-18 April 2009.

<sup>41</sup> Zellmer, above n7, 684.

then alternative legal protection may need to be sought (for example, protection under contract law or under statute). Unfortunately, no simple test or theory exists for determining whether an item is capable of being recognised as property. This has led to some confusion in the forest context as the legal system attempts to articulate an interest in particular forest items (for example, the carbon stored in trees or the biodiversity of the forest) should be classified as a property-based interest.<sup>42</sup> In many instances, the legal system has avoided such analysis by simply creating new rights in forest products.<sup>43</sup>

There are a number of characteristics that are associated with property-based rights. It should be noted, though, that the existence or absence of one of these characteristics does not definitively resolve the existence or non-existence of property interests.<sup>44</sup> However, these characteristics are useful for identifying the legal nature of the interests attached to the thing in question. In *National Provincial Bank Ltd v Ainsworth*<sup>45</sup> it was stated:

“Before a right or an interest can be admitted into the category of property, or of a right affecting property, it must be definable, identifiable by third parties, capable in its nature of assumption by third parties, and have some degree of permanence or stability.”

Fisher states that property rights can be broadly identified by examining:

- whether the right can be enforced within the legal system;
- whether the substance of the right can be clearly defined and identified;
- whether the right is exclusive to the holder of the right;
- whether the right is sufficiently permanent and stable to attract a sufficient degree of security; and
- whether the right can be transferred.<sup>46</sup>

In addition to these, Scott identifies a further three characteristics:

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<sup>42</sup> See generally Jillian Button, ‘Carbon: Commodity or Currency? The case for an international carbon market based on the currency model’ (2008) 32 *Harvard Environmental Law Review* 571. For an examination of the New Zealand approach see Peter B Lough and Alastair D Cameron, ‘Forestry in the New Zealand Emission Trading Scheme: Design and Prospects for Success’ (2008) 3 *Carbon and Climate Law Review* 281.

<sup>43</sup> Two states in Australia (Victoria and South Australia) allow for the creation of *Forest Property Agreements* which include rights to plant, maintain and harvest forest property (which includes carbon sequestered by trees). These agreements can then be registered on the land register, which allows the owner of the forestry right to enforce contractual obligations related to the right. The registration of this interest in the land also allows the owner of the right to enforce these contractual obligations against future owners of the land. For further information see: Charlotte Streck, ‘Forests, Carbon Markets, and Avoided Deforestation: Legal Implications’, (2008), 3, *Carbon and Climate Law Review*, 239, 246; and Michelle Passero, ‘The Nature of the Right of Interest Created by a Market for Forest Carbon’, (2008), 3, *Carbon and Climate Law Review*, 248, 249, 252.

<sup>44</sup> Fisher, above n27, 211.

<sup>45</sup> [1965] AC 1175, 1247-8.

<sup>46</sup> Fisher, above n27, 218. These criteria were derived from the following cases: *Bank of New South Wales v Commonwealth* (1948) 76 CLR 1, 349-350; *National Provincial Bank v Ainsworth* [1965] AC 1175, 1247-1248; *R v Toohy ex parte Meneling Station Pty Ltd* (1982) 158 CLR 342 and *Western Mining Corporation Ltd v Commonwealth* (1994) 121 ALR 661, 682-684.

- the duration of the right;
- the flexibility of the right; and
- the divisibility of the right.<sup>47</sup>

### *i. Enforcement*

To determine if the right can be enforced by the legal system, it will be necessary to see if the legal system recognises the existence of such a right. Thomas Jefferson argued that property is strictly a social creation; and because society creates property rights, it should continue to control them.<sup>48</sup> On this view, property exists within a social and political context, and is dependent on this context for its form and existence.<sup>49</sup> This sounds somewhat abstract, but an example in the forestry context should help to demonstrate its significance. It is increasingly common in domestic legal frameworks to recognise the existence of a right to forest carbon. However, this recognition is only relatively new, and many legal systems are still determining the correct mechanism for recognising such forest interests. This suggests that when novel interests arise, the legal system may be slower to give them legal recognition. If the legal system recognises the new interest that may occur under statute, private contractual agreements or, perhaps, even as a property interest, then the rights associated with the interest are able to be enforced. Therefore, recognition and enforcement of legal rights are two key features of a legal right. In many developing countries, the lack of recognition of customary, indigenous, or local people's interests in forests areas prevents such groups being able to enforce their rights.<sup>50</sup>

### *ii. Clear definition and identification*

For the legal system to recognise property, there must be clarity as to the definition of the item, as well as a formal process that identifies the property interest. The definition and identification of forest-related interests in certain instances may be relatively straightforward, but in others it may be much more complicated. It is common for a number of forest interests to exist over the one parcel of land. Firstly, there are interests associated with the land upon which the forest exists. In the majority of developed countries, some form of land boundary and remote mapping technology have made land identification a formal and accountable process. In many developing countries, land boundaries are often unclear and remote mapping technologies limited.<sup>51</sup> Secondly, the vegetation forming the forest needs to be capable of definition and identification. This process involves the assistance of scientific, indigenous, and

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<sup>47</sup> Scott, above n26, 6-10.

<sup>48</sup> McGregor, above n30, 394.

<sup>49</sup> Ibid, 395.

<sup>50</sup> Sunderlin et al, above n25.

<sup>51</sup> Sayer et al, above n13.

other relevant stakeholders to ensure that the genetic and other forest values are clearly understood. Identifying and defining forest ecosystem values should involve a process that is both flexible and dynamic, and which evolves as new knowledge is acquired concerning forest values. Thirdly, other interests in the forest need to be capable of definition and identification. These other interests may be harvesting rights, access rights, carbon, biodiversity or ecosystem rights, or some other form of right. These other forest rights may involve linguistic definition challenges and similarly complex identification procedures.<sup>52</sup>

### *iii. Exclusivity*

Scott suggests that exclusivity involves two distinct theories. Firstly, it can refer to the reduction or avoidance of physical interference with the right-holder's use of the resource. Interference, in this sense, refers to the sharing of the resource with other owners. Secondly, exclusivity can also refer to the right-holder's degree of independence or freedom from government regulations that operate to restrict the use of a resource in order to promote the public good and the government's objectives.<sup>53</sup> In relation to the first definition of exclusivity within the forestry context, it may be possible to have compatible interests within the one parcel of forest land. In such instances, there is no need for exclusivity. For example, one party may have rights to harvest the fruit from the trees, while another has rights to gather honey from the trees. In other instances, the exclusivity of the forest right will determine the economic, environmental and social value of the right. Often, in the forestry context, individual interests in forests are incompatible with one another. For example, it is difficult to recognise harvesting rights and biodiversity forest rights on the one piece of forest land at the same time. In relation to the second theory of exclusivity, it is proposed that modern environmental regulation has impinged upon absolute rights to natural resource use and management, and that it would be rare to find examples of absolute exclusivity from government intervention.

It has been stated that the right to exclude is the most characteristic right of private property.<sup>54</sup> It is suggested that this right makes:

“... private property fruitful by enabling owners to capture the full value of their individual investments, thus encouraging everyone to put time and labour into the development of resources ... Thus exclusive private property is thought to foster the well-being of the community, giving its members a medium in which resources are used, conserved and exchanged to their greatest advantage.”<sup>55</sup>

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<sup>52</sup> See chapter six which examines the complexity of defining and identifying forest carbon interests.

<sup>53</sup> Scott, above n26, 6.

<sup>54</sup> Rose, above n17.

<sup>55</sup> Ibid, 711.

In the forestry context, there is compelling evidence to suggest that private property rights, including the right to exclude, are not sufficient alone to ensure sustainable forest management practices.<sup>56</sup> Conversely, it is frequently recognised that exclusivity and security of tenure contribute to improving the implementation of sustainable forest management practices.<sup>57</sup> It is suggested that there must be a robust legal and policy framework to support private ownership rights while ensuring that sustainable forest management practices are carried out.

#### *iv. Permanency and security*

Fisher suggests that for certain rights to be recognised as property, such rights must endure for a sufficiently long period, without any prospect of substantial change or variation, so as to create a degree of security.<sup>58</sup> Evidence of a permanent and secure right to forest areas is a prerequisite for investment in the land. This is particularly so in the case of forestry investment, as forest stands take a long time to mature. Investment in the land may be financial, or may be the carrying out of sustainable forest management practices. These types of investment in the land will generally not occur unless some form of incentive is involved. This incentive may be financial return, improved livelihood, or environmental conditions. There is general agreement that secure property rights are central to achieving social, economic, and environmental goals.<sup>59</sup>

#### *v. Transferability*

The ability to transfer ownership or rights in an item is a valid indication of the existence of property. The ability to transfer interests in property is an essential requirement for the operation of modern market economies. The transfer of such property interests usually takes place in exchange for monetary compensation. This process allows individuals, groups, governments and businesses to buy and sell property to suit their interests. Therefore, proponents of market regulation support the creation of regimes that create property rights over a wide range of interests. For an interest to be transferred, other property criteria such as recognition, enforcement, identification and definition must be met. In the forest context, the ability to transfer interests in forest property increases the attractiveness of investments in forest property. This is because investors generally feel more confident investing in a process in which they are able to transfer their interest when it no longer suits their needs to hold it. Most forest property, once recognised, will meet transferability requirements.

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<sup>56</sup> White and Martin, above n14, 15-17.

<sup>57</sup> Sunderlin et al, above n20.

<sup>58</sup> Fisher, above n27, 211.

<sup>59</sup> Sunderlin et al, above n20,



#### *vi. Duration and flexibility*

Duration naturally refers to the timeframe for which the interest exists.<sup>60</sup> The duration of forest property interests will vary according to the interest. Interests to harvest forest property may require the interest to exist during the propagation and subsequent harvesting period. Rights arising from forest carbon or biodiversity may be required in perpetuity, while other rights (for example, to process non-timber forest products) may only be required for temporary periods. Flexibility is the extent to which the powers and obligations associated with the rights can be adjusted without weakening title.<sup>61</sup> Therefore, flexibility allows for re-negotiation of the terms or conditions during the duration of the holder's occupation. This is a particularly useful characteristic, because it allows the property interest to evolve in accordance with changes in society. In the forestry context, it means that new interests in forests may be recognised.

#### *vii. Divisibility*

Scott identifies three types of divisibility: horizontal, vertical, and multiple-use.<sup>62</sup> Horizontal divisibility allows a holder to subdivide a lot and transfer title accordingly. Vertical divisibility refers to situations whereby a number of estate interests are held over a property, some of which may occur concurrently, while others are dependent upon being passed on from other estate interest holders.<sup>63</sup> Multiple-use divisibility allows the right-holder to divide their powers to create a separate right over each use of the land.<sup>64</sup> All of these forms of divisibility are useful in the context of forest property. Horizontal divisibility allows the holder of a lot to transfer rights to forest property to third parties; vertical divisibility allows for multiple interests in forest products to be created; and multiple-use divisibility allows for the recognition of a number of forest property interests on the one lot.

#### *viii. Summary*

The characteristics described as enforcement, definition, identification, exclusivity, permanency and security, transferability, duration, flexibility and divisibility are all common features of property rights. To determine if new interests in forests are capable of being recognised as property, these kinds of criteria should be taken into account. Most legislatures have decided to avoid the issue of determining if interests in forests are property-based and,

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<sup>60</sup> Scott, above n26, 7.

<sup>61</sup> *Ibid*, 7.

<sup>62</sup> *Ibid*, 10-12.

<sup>63</sup> There are a number of estate interests in land for example fee simple interests, life interests, remainder interests etc. Discussion of such interests is beyond the scope of this thesis; further information on these types of interests can be obtained in trust and property law commentaries.

<sup>64</sup> Sheehan and Small, above n35.

instead, referred to such interests as ‘rights’.<sup>65</sup> This, however, does not ultimately determine if the nature of the right is property-based. In common law systems, the judiciary may, in due course, be called upon to decide the precise nature of interests in forest resources.<sup>66</sup> Such decisions will be made by applying the characteristics listed above to the particular forest interest claimed.

#### **4. Limitations on the Rights of Sovereignty**

##### ***A. Restrictions upon state sovereignty***

When states sign international agreements (such as the Forest Principles 1992 and 2007), they are agreeing (at least in principle) to approve and attempt adoption of the responsibilities created by the instrument. The adoption of the agreement may require changes to domestic policy and action; this is one example of international obligations and responsibilities limiting state sovereignty. It removes some of the state’s autonomy in the creation of policy. In theory, states are not meant to implement policy that is inconsistent with international obligations, even where the international environmental obligations impact negatively upon a state’s economic interests. The implementation of international obligations has the ability to undermine most of the rights commonly associated with the exercise of state sovereignty.

“... the principle of sovereignty itself places states under an obligation to respect the environment of other states. It is thus the doctrine of sovereignty itself in the context of water resources as shared resources within the international community that leads inevitably to limitations upon the exercise of these rights of sovereignty.”<sup>67</sup>

This statement by Fisher demonstrates the contradiction that exists within rights associated with sovereignty. The contradiction is associated with the fact that the exercise of sovereign rights is intrinsically limited or qualified by international environmental regulation.

Looking more specifically at the second component of sovereignty found in principle 1(a) of the *Rio Forest Principles*, it requires states to think beyond consequences within state boundaries and consider all possible consequences of their actions. The principle requires that states “do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction”.<sup>68</sup> This indicates that international duties exist in relation to both the

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<sup>65</sup> Streck, above n43, 246; and Passero, above n43, 252.

<sup>66</sup> Guidance may be taken from an approach proposed in John Sheehan, ‘Conceiving Property Rights in Carbon’ (Paper presented to the Natural Resources and Water Climate Change Conference, Brisbane Convention and Exhibition Centre, Brisbane, 23 May 2007), 5.

<sup>67</sup> Douglas Fisher, *The Law and Governance of Water Resources: The Challenge of Sustainability* (2009), 192.

<sup>68</sup> United Nations Conference on Environment and Development, *Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all types of Forests*, UN Doc a/conf 15/126 (1992), principle 1(a).

individual states and to the international community as a whole.<sup>69</sup> The phrase “damage to the environment” could be given a broad or narrow interpretation. A broad interpretation of damage would include direct and indirect damage caused by other states. A narrow interpretation would only include direct damage. Direct damage involves activities that impact negatively upon an individual state. Indirect damage refers to activities which impact negatively on all states. For example, deforestation in State A may affect State B directly – that is, lack of ecological services carried out by forests (such as water purification, soil retention and local climate moderation) may impact upon State B. An example of indirect damage may be the loss of biodiversity in the deforested area, a loss which is suffered by all states rather than one state in particular. The exact meaning of environmental damage is not yet clear in international forestry law.

Environmental damage is defined in the *Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment*<sup>70</sup> (from now referred to as the *Convention on Civil Liability*). This is not a United Nations Agreement, but an agreement reached by the Council of Europe.<sup>71</sup> Its objective is to provide adequate compensation for damage resulting from activities dangerous to the environment and also to provide means of prevention and reinstatement.<sup>72</sup> Under this convention, it appears that ‘damage to the environment’ means loss or damage by impairment to the environment. Article 7 defines damage to mean:

- Loss of life or personal injury: 7(a)
- Loss or damage to property: 7(b)
- Loss or damage by impairment of the environment, this form of damage limited to a remedy of costs for reinstatement: 7(c)
- The cost of preventative measures and any loss or damage caused by preventive measures: 7(d)

Article 7(a) of the *Convention on Civil Liability* could be construed broadly to include loss of human, animal and plant life. This broad construction is prevented by principle 7(c), because it specifically mentions the environment. The term ‘environment’ is defined in principle 10 to include natural resources, including abiotic and biotic specimens, property which forms part of the cultural heritage, and the characteristic aspects of the landscape. This implies that ‘loss of life’ is only intended to cover the loss of human life. In terms of the natural environment,

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<sup>69</sup> A Dan Tarlock, ‘Exclusive Sovereignty versus Sustainable Development of a Shared Resource: The Dilemma of Latin American Rainforest Management’ (1997) 32 *Texas International Law Journal* 37 at 49.

<sup>70</sup> *Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment* (1993) ILM 1228.

<sup>71</sup> Douglas Fisher, *Australian Environmental Law* (2003), 11.

<sup>72</sup> See n70, article 1.

principle 7(c) is the most relevant. However, it is worth noting that this type of damage is limited to a remedy in costs of reinstatement only, meaning that other restitutive remedies are specifically excluded for cases of environmental damage.

The international environmental legal principle of common but differentiated responsibility requires states to acknowledge the “common heritage of mankind”, and is a manifestation of general principles of equity in international law.<sup>73</sup> The principle gives practical recognition to the fact that states have varying responsibilities and capacities to respond to environmental challenges.

The principle has two components:

1. Common responsibility of all states to protect the environment.
2. States must take into account the different circumstances, particularly each state’s contribution to the evolution of a particular problem and its ability to prevent, reduce and control that threat.

Because of a global common responsibility to protect the environment, the principle of common but differentiated responsibility, therefore, also places a restriction upon the use of sovereign rights in relation to the environment. This common responsibility and interest in the environment would ideally take precedence over individual state interests in the environment and require states to consider the impact of their actions externally (international impacts) and internally (impacts at the country level).

The emergence of markets for environmental resources has led to the commoditisation of environmental values. Markets require the existence of rights in the commodity being traded. The creation of such rights limits the sovereign powers of the state if the interest associated with the rights is transferred by the state to an individual. Foreign investment in natural resources interests through the operation of environmental markets also leads to a reduction in a sovereign state’s rights or authority. International environmental markets strip away sovereign rights by imposing their own criteria concerning the management and use of the resource. This, therefore, limits the application of state imposed regulation.

### ***B. Relationship between two components: the effect of sovereignty on forest governance***

Arguably, all international instruments having an object to conserve and protect the natural environment affect individual states’ rights to deal with their natural resources. The concept of sustainable forest management, like all other accepted environmental norms or standards,

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<sup>73</sup> Andrew Mitchell and Jennifer Beard, *International Law in Principle* (2009).

impinges upon states' sovereign rights.<sup>74</sup> This means that the concept of sovereignty and the nature of international environmental obligations are divergent, and the relationship between the two is unclear. For example, if a state signs an international forest agreement which provides that sustainable forest management principles must be adopted, then fails to implement this agreement due to concerns related to state sovereignty, one may question the purpose of signing the international agreement in the first place. One eminent writer on international forest regulation has suggested that:

“Sovereignty is a legal fiction which has always been compromised by transnational economic and social forces with assertions of sovereignty serving to insulate the state from the international environmental effects of its policies.”<sup>75</sup>

Mickelson<sup>76</sup> explores the importance of sovereignty to developing nations. Following World War II, sovereignty was a concern for many states. Control over resource decision-making existed alongside demands for independence and self-determination.<sup>77</sup> Sovereignty over natural resources became linked with concerns about human rights and the right to self-determination.<sup>78</sup> In the UN's *Progressive Development of the Principles and Norms of International Law Relating to the New International Economic Order*<sup>79</sup> the importance of sovereignty to self-determination was highlighted by a Chilean proposal:

The right of peoples to self determination should also include permanent sovereignty over their natural resources and that in no case might a people be deprived of its own means of subsistence on the grounds of any rights that might be claimed by other states.<sup>80</sup>

Mickelson points out that sovereignty was never completely unrestricted, as there was always a general consensus that sovereignty would be subject to obligations under international law.<sup>81</sup> International law itself is not precisely clear in specifying what, if any, international obligations erode rights associated with sovereignty. If a forest convention were reached, and actively changed the use and management of the world's forests, state sovereignty would certainly be affected.

“An essential difficulty that arises in the context of developing a forests convention, is that of avoiding the perception that such an agreement constitutes an infringement of sovereignty. In

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<sup>74</sup> Edith Brown Weiss, 'International Environmental Law: Contemporary Issues and the emergence of a New World Order' (1993) 81 *Georgetown Law Journal* 675 at 703-705.

<sup>75</sup> David Humphreys, *Forest Politics: The Evolution of International Cooperation* (1996) 171.

<sup>76</sup> K Mickelson, 'Seeing the Forest, the Trees and the People: coming to terms with developing perspectives on the proposed global forest regime', in S Johnson (ed) *Global Forests and International Environmental Law* (1996).

<sup>77</sup> *Ibid*, 243.

<sup>78</sup> *Ibid*.

<sup>79</sup> United Nations Institute for Training and Research (UNITAR), *Progressive Development of the Principles and Norms of International Law Relation to the New International Economic Order*, UNITAR/DS/5.

<sup>80</sup> *Ibid*.

<sup>81</sup> Mickelson above n76, 246.

fact, if an instrument on forests is qualitatively different from previous international instruments in the environmental area it is precisely because its potential impact on sovereignty over resources appears to be much more direct.”<sup>82</sup>

In 1992, state sovereignty was a major impediment to achieving a binding agreement on international forestry, and it is worth asking if it still is. The evolution of international sustainable forest management obligations has taken the form of non-legal prescriptions. It could be argued that a non-legally binding form has been used to avoid concerns linked to sovereignty over forest areas. International forestry law is yet to be regulated by a legally binding instrument, so the issues connected with sovereignty have yet to be addressed.<sup>83</sup> The instrument would need to be drafted in a way that provides clarity on the relationship between sovereign rights and the obligations prescribed by the text.<sup>84</sup> For example, this may mean that state sovereignty is recognised as being important to states, while also recognising that forest areas are of critical importance to states for many reasons. States may then agree to erode some of the rights associated with sovereignty. This will require a paradigm shift, from forests been valued as a natural resource, which provides resources, capital and jobs, to a view where forests are recognised as having multiple values that are best managed under an international approach.<sup>85</sup>

State sovereignty involves concepts such as control, autonomy and authority to deal with all transactions occurring within a state’s borders.<sup>86</sup> International environmental agreements, on the other hand, prescribe rights and duties for states in relation to the natural environment. The concept of sustainable development was created to balance out the incompatibility between state sovereignty and the obligations created in international agreements.<sup>87</sup> In theory, the concept of sustainable forest management would mean that states balanced the competing ecological, social and economic values associated with forestry equally, and would thus manage their resources in a sustainable manner. In reality, the practice is somewhat different. Economic interests still prevail as the leading interest, and any developments in forestry law that impact adversely upon economic interests are fraught with political tension.

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<sup>82</sup> Ibid at 248.

<sup>83</sup> See generally on the tension between State sovereignty and environmental governance Klaus Bosselmann: *Environmental Governance: A new approach to Territorial Sovereignty in Environmental Ethics and Law*, Robert J Goldstein (ed), (2004).

<sup>84</sup> Weiss, above n74, 703-705.

<sup>85</sup> For a discussion of classifying forests at global commons see Tarlock above n69 at 44-47.

<sup>86</sup> Litfin above n4, 2.

<sup>87</sup> T Kuehls, ‘Between Sovereignty and Environment: An Exploration of the Discourse of Government’ in K Lifting (ed) *The Greening of Sovereignty in World Politics* (1998), 48 and Tarlock above n 69, 42.

It has been suggested that, as an alternative to creating a binding legal instrument regulating forest use and management, various other programs could be implemented to side-step the sovereignty problem. These include:<sup>88</sup>

- Restoration of forests damaged by development agendas. This process involves rebuilding or restoring forests to their original biological make-up.
- Debt reduction programs for developing countries, to prevent further deforestation taking place. This may involve forgiving the debt.
- International funding for environmental protection.
- Debt for nature swaps; that is, swaps that create financial incentives for rainforest nations to preserve biodiversity.<sup>89</sup>

These policy options would all impact positively upon forest cover and forest health. The issue, as always, is the challenge of obtaining funding to implement such policies. The Food and Agricultural Organization's (FAO) *State of the World's Forests* of 2007<sup>90</sup> highlighted the urgent need for increased funding for international forestry projects. An example given to demonstrate this is the FAO's forest funding programs. Each year, FAO funds 10 new forest programs to strengthen national forest institutions, but the demand for these programs well exceeds the capacity of the FAO.<sup>91</sup>

## 5. Limitations on the Rights of Property

Property rights can be limited in a number of ways. Those in environmental resources can be restricted by legislative intervention prescribing how the environmental resource is to be used and managed (usually in accordance with the concept of sustainable development). Similarly, the legislature may make statutory reservations over certain environmental values on private land. Property rights can also be restricted by the operation of environmental markets. Similar to legislative intervention, markets require that certain criteria and practices are followed. Both statutory and market prescriptions operate to restrict the way in which property may be used. For this reason, some commentators have suggested that the operation of environmental regulation undermines private property interests.<sup>92</sup> This argument is advanced on the basis that environmental regulation removes a number of rights attaching to land that might otherwise have remained in existence. However, the doctrine of internal state

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<sup>88</sup> R Eshbach, 'A Global Approach to the Protection of the Environment: Balancing State Sovereignty and Global Interests' (1990) 4 *Temple International and Comparative Law Journal* 271, 282.

<sup>89</sup> Tarlock, above n69, 64.

<sup>90</sup> Food and Agricultural Organisation, *State of the World's Forests* (2007).

<sup>91</sup> *Ibid*, 70.

<sup>92</sup> Royal Gardner, 'Taking the Principle of just compensation abroad: Private Property Rights, National Sovereignty, and the Cost of Environmental Protection' (1996-1997) 65 *University of Cincinnati Law Review*, 539.

sovereignty and the legal definition of property mean that land ownership had never been absolute, and always subject to some form of limitation.

The concept of sustainable forest management is yet to obtain legally binding status and, as such, the broader concept of sustainable development is the concept that limits environmental property holders' rights. Sustainability concepts introduce a number of issues that states must consider in the design of their regulatory schemes:

- the needs of present and future generations must be taken into account (intergenerational equity);
- the needs of the world's poor must receive priority, and abject poverty must be eliminated (intra-generational equity);
- the environment needs to be preserved, at least to a significant degree;
- economic, social and environmental policies must be integrated.<sup>93</sup>

The concept of sustainable development introduces a number of responsibilities for governments. It requires them to examine environmental, economic, and social considerations before allowing action to take place. This requires the government to gather data on all values associated with the environment, and to consult relevant stakeholder groups prior to approving plans for the relevant area of land. The concept of sustainable development, therefore, imposes new responsibilities on governments and restrictions on property holders' rights.

#### **A. Land tenure limitations**

The legal system places restrictions on a property holder's rights through the granting of particular land interests which, in themselves, contain restrictions on how the land may be used. The term 'land tenure' describes the relationship that exists between the government, the user of the land, the relevant parcel of land, and other land holdings. The law has developed to recognise a number of different interests in land through different categories of tenure. In some instances, it may be appropriate to recognise compatible multiple interests over one parcel of land.

Interests which the law recognises as existing over land include:

- *Freehold interest in land* – This is the interest most comparable to the notion of ownership. In systems that use the feudal principle of tenure, such as Australia, no landholder whose title originates from Crown grant 'owns' the land in any absolute sense. The holder of the freehold interest merely holds the interest in

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<sup>93</sup> D Magraw and D Hawke, Sustainable Development' in Daniel Bodansky et al (eds), *Oxford Handbook of International Environmental Law* (2007), 613, 619.



land 'of the Crown'.<sup>94</sup> Freehold title generally provides holders of such title with the greatest freedom in deciding the use and management of their land. Such use and management is subject to Crown intervention, which may take place through the introduction of legislative provisions or policy prescriptions (such as codes of conduct).

- *Native title interests in land*- Such rights are generally held as as group or as communal rights as distinct from individual rights. Each legal jurisdiction has its own process for recognising native title interests in land. In Australia native title rights are seen a bundle of rights and each individual right must be established before a court will recognise the existence of such rights. Rights that would be relevant in the forest context might include a right to carry out indigenous forest farm silvicultural practices, a right to harvest and use forest products and a right to exclude others from certain forest areas.
- *Leasehold interests in land* – These confer a right of general occupation of the land. While freehold interests in land exist for an indefinite period, leasehold interests exist for a defined period. Because of the limited duration, leasehold interests are regarded as a lesser interest than freehold title.<sup>95</sup> Land may be leased from the state or from a private owner of the freehold estate. Leases generally include a number of covenants concerning the use and management of land. This is in addition to the defined duration that characteristically limits the leaseholder's use of the land.
- *Easement interests in land* – these interests in land create rights and responsibilities for landholders. Holders may obtain an easement right to use another's land for a specific purpose, which another landholder must then recognise. This type of interest is often given to provide a right of way across another's land, a right to enjoy an area of another's land as a garden, or a right to park a car on another's land.<sup>96</sup> So, there must be land that receives the benefit of the easement (dominant tenement) and land that is burdened as a result of the easement (servient tenement).
- *Covenant* – A restrictive covenant is a promise made between parties where one party agrees to restrict the use of the land.<sup>97</sup> Covenants have been used to bind the current holder of the land and all future holders it to carry out particular environmental management activities.<sup>98</sup> In this case, the holder of the covenant over the land is usually the state.

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<sup>94</sup> Law Book Company, *Laws of Australia*, vol 28 "(at 24 July 2009) Real Property, 28.1.27. Fee Simple.

<sup>95</sup> Law Book Company, *Laws of Australia*, vol 28 (at 24 July 2009) Real Property, 28.1.73 Leasehold Interests

<sup>96</sup> Law Book Company, *Laws of Australia*, vol 28 (at 24 July 2009) Real Property 28.13.1 Easements

<sup>97</sup> Law Book Company, *Laws of Australia*, vol 28 (at 24 July 2009) Real Property 28.14.1 Restrictive Covenants

<sup>98</sup> In Queensland, these are referred to as statutory covenants. For further information, see generally Queensland Department of Natural Resources and Water, *Statutory covenants* (2007) <http://www.nrw.qld.gov.au/factsheets/pdf/land/198.pdf>

- *Profit à prendre* – A right to enter upon the land of another and take away something that forms part of the land or its natural produce.<sup>99</sup> These interests in land have been granted to allow holders to remove timber and other natural resources.<sup>100</sup> More recently, these interests in land have been used to recognise ‘carbon rights’ in forest land. On a strict interpretation, however, holders of carbon rights do not have a right to remove something from the land; rather they have a right to payment for a service that the environment performs (that is, carbon sequestration).<sup>101</sup>
- *Forest property rights* – There are conceptual difficulties associated with using existing interests in land as a basis for recognising rights to natural resources or their processes. Some states in Australia have dealt with the issue by creating instead a ‘new interest’ in land that can be included on the register.<sup>102</sup> Victoria and South Australia allow for the creation of Forest Property Agreements that include rights to plant, maintain and harvest forest property (which includes carbon sequestered by trees). These agreements can be registered on the land register, which allows the owner of the forestry right to enforce associated contractual obligations. The registration of this interest in the land, also allows the owner of the right to enforce these contractual obligations against future owners of the land.<sup>103</sup> In New Zealand, the *Forestry Rights Registration Act 1983* enables an owner of land on which trees have grown to grant a forestry right over the forest to a third party. A forestry right holder has the ability to establish, maintain and harvest a crop of trees on the land. Forestry rights are recorded on the land title and classified as a profit à prendre interest. This classification ensures that a holder’s rights continue despite changes in land ownership.<sup>104</sup> Australia and New Zealand are leading the way in developing legal interests in rights arising from carbon storage in forests.<sup>105</sup>

## 6. Conclusion

The legal concepts of sovereignty and property both heavily influence the regulation of forests at the international and national level. These are difficult concepts, appearing to be contradictory in terms of the rights associated with them. On one hand, they provide either

<sup>99</sup> Law Book Company, *Laws of Australia*, vol 28 (at 24 July 2009) Real Property, 28.10.550 Profit à prendre.

<sup>100</sup> *Reid v Moreland Timber Co Pty Ltd* (1946) 73 CLR 1, 16.

<sup>101</sup> There has been some criticism of using profit à prendre interest for such purposes, as the storing of carbon is not a right to take something away from the land. See Australian Greenhouse Office, *Planning Forest Sink Projects: A guide to Legal, Taxation and Contractual Issues*, (March 2005); and Paul Curnow and Louisa Fitz-Gerald, ‘Biobanking in New South Wales: Legal issues in the design and implementation of a biodiversity offsets and banking scheme’, (2006), *Environmental and Planning Law Journal*, 298.

<sup>102</sup> Sandra Eckert and Richard McKellar, ‘Securing Rights to Carbon Sequestration: The Western Australian Experience’ (2008) (Winter) *Sustainable Development Law and Policy* 30.

<sup>103</sup> Australian Greenhouse Office, above n50, 59-61.

<sup>104</sup> Lough and Cameron, above n42, 285.

<sup>105</sup> Streck, above n43, 246; and Passero, above n43, 252.

the state or an individual with certain rights, inherent in which are restrictions on how these rights may be exercised. Restrictions on sovereign and property rights arise as a result of public values associated with the environment. This broader public interest in the environment takes precedence over the individual interests in the environment. The legal system provides recognition both for broader public interests and individual interests by granting rights encumbered with restrictions. Those in charge of regulating forest areas, therefore, have to grapple with granting certain rights to individuals, while at the same time ensuring that broader public interests in forests are also maintained.

## **CHAPTER FOUR: The Governance of Forest Resources Sustainably**

### **1. Introduction**

There are no legally binding obligations to ensure that forests are managed sustainably. Negotiations at the international level concerning forest regulation have proven to be politically charged. The competing values associated with forest areas – ecological, economic, and social – have prevented parties from reaching agreement on international standards concerning forest use and management. The United Nations Forum on Forestry (the key public international body charged with regulating forest use and management) has been unable to deal effectively with the political issues surrounding forest regulation. Lack of progress by the United Nations Forum on Forestry has led to the development of a number of alternative international forest regulatory approaches.

Currently, global forest governance is patched together with different international bodies regulating individual forest values. By way of example, the international climate change regime regulates forest carbon value, the Secretariat of the Convention on Biological Diversity regulates ecological forest values, and the international tropical timber institution the productive or economic value of forests. This means that current global forest governance arrangements results in duplication, overlap, and confusion as to the applicable international standards, rules or objectives of international forest regulation.

Despite these fragmented governance arrangements, it is possible to identify a common concept permeating through all international forest policy. This is the concept of sustainable forest management. There appears to be global consensus that the concept of sustainable forest management is a desirable outcome. The means of achieving and implementing this concept remain open ended. Sustainable forest management, in essence, is the management of forest areas taking into consideration the competing anthropocentric economic, ecological and social values assigned to forest areas. It is a concept that requires recognition of the fact that forests provide a number of services. This recognition of various forest services, therefore, requires management of forest estates to ensure that all forest values and services continue to flourish.

Unfortunately, there is no single definition of sustainable forest management, no one list of sustainable forest management requirements, nor one form of implementing mechanism. Therefore, the common concept of sustainable forest management becomes somewhat abstract due to the number of competing definitions, obligations and requirements associated with it. Despite this obvious disadvantage concerning the clarity of the concept, it is,

nevertheless, useful to have at least an in-principle agreement that the overall objective for global forestry regulation should be the achievement of sustainable forest management practices. This chapter explores the legal meaning and requirements of sustainable forest management.

## 2. The Function of Governance

The concept of governance has made its way into the writings of most academic disciplines. In some ways, the concept is similar to the concept of sustainable development, in that it is widely used without having a standard meaning or common understanding. There is no one definition of governance. In part, this might be explained by the use of the concept across a number of disciplines. Turning to the concept of governance within forest regulation, it can be suggested that environmental governance includes the various institutions and structures of authority engaged in the protection of the natural environment.<sup>1</sup> Underpinning environmental governance arrangements is the concept of sustainability, which acknowledges the fundamental importance of the preservation of earth's ecological integrity.

Fisher explores the meaning and evolution of the concept of governance.<sup>2</sup> He suggests that, traditionally, the term was used to refer to the act or process of governing by regulation or sanction by the government. However, the term has not evolved to include other means of regulating – such as market, self and voluntary regulation, and other bodies performing regulatory duties (e.g. industry, the community, and the private sector).<sup>3</sup> The evolution of new forms of new mechanisms and instruments to govern sustainable forest management is evident within the international forestry regime. Similarly, a number of non-state bodies have engaged in the international regulation of forestry. Such developments are discussed in further detail in Part Four of this thesis, which deals with non-state forest institutions.

Writings on the concept of governance tend to include discussions of how to improve it. Generally, achieving good governance, or creating a system which meets the requirements of good governance, is encouraged and supported across the literature. The requirements of good governance, however, remain elusive.<sup>4</sup> Common themes within the literature discussing good governance are: integration, stakeholder participation, accountability, enforceability, and transparency. Bosselmann found that the term is used to describe democracy, transparency, effectiveness, procedural rights and the rule of law.<sup>5</sup> Of particular relevance to international

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<sup>1</sup> Klaus Bosselmann, *The Principle of Sustainability: transforming law and governance* (2008), 175.

<sup>2</sup> Douglas Fisher, *The Law and Governance of Water Resources: The Challenge of Sustainability* (2009), 44.

<sup>3</sup> *Ibid.*

<sup>4</sup> Bosselmann, above n1.

<sup>5</sup> Bosselmann, above n1, 61.

forest regulation is the concept of integration. This thesis suggests that a major impediment in the effectiveness of current international forest regulation is the lack of integration within the bodies creating forest standards, rules and processes.

### **3. The Origin and Meaning of Sustainable Forest Management**

Sustainable forest management has been adopted as the overall goal for global forest management.<sup>6</sup> The concept is an ever-evolving concept that attempts to incorporate and recognise all values associated with forests, and further attempts to give equal weighting to all of these varying and potentially conflicting forest values. Common values identified in forest areas include: ecological and environmental values, social and cultural values, and trade and development values. Providing recognition for all of these within a legal framework has proved difficult for policy makers at the global level, and similarly at the domestic level. The numerous values associated with forests present a unique legal challenge.

The management of forest areas (like other natural resources) is inherently political; however, forests, unlike other elements of the natural environment (e.g. water, air and fauna), have for some time allowed for ownership rights. Existing individual rights in environmental resources presents a challenge for regulators when introducing policy that restricts such rights. The ability for public and private bodies to own forest areas gives these owners certain property rights and responsibilities. These rights and responsibilities in relation to forest areas contribute to the complexity of creating a mutually acceptable regime for managing the world's forests. The concept of sustainable forest management is internationally accepted as recognising and promoting the equal consideration of all rights and interests in forest areas.

The concept of sustainable forest management emerged from private transnational regulation. In Strasbourg in 1990, ministers from European countries came together to discuss the need for greater protection and conservation of forest areas. Officially, this meeting is known as the *Ministerial Conference on the Protection of Forests in Europe*, representing around 40 European countries. In 1993, the second meeting took place known as the *Helsinki Process*<sup>7</sup>. This involved European countries meeting to develop and define sustainable forest management. Importantly, at the *Helsinki Process*, a workable definition of sustainable forest management was created. This is to be found in *Resolution H1: General Guidelines for the*

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<sup>6</sup>Guillermo Mendoza and Ravi Prabhu, 'Development of a Methodology for Criteria and Indicators of Sustainable Forest Management: A case study on Participatory Assessment' (2000) 26 (6) *Environmental Management* 659.

<sup>7</sup> Officially entitled *The European Process on Criteria and Indicators for Sustainable Forest Management*.

*Sustainable Management of Forests in Europe*, paragraph D,<sup>8</sup> the parties agreed that “sustainable management” of forests means

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.

At the follow-up meeting held in 1994, criteria and indicators were created to define further the elements of sustainable forest management.<sup>9</sup> These criteria and indicators were based upon Resolution H1 and H2 from the *Helsinki Process*.<sup>10</sup> A criterion in this context is a category of conditions or processes by which sustainable forest management may be assessed. An indicator in this context is a quantitative or qualitative variable that can be measured or described. The criteria and indicators were designed to identify national trends and patterns in forest conditions and management at the individual European country levels.

The *Helsinki Process* created six criteria for sustainable forest management:<sup>11</sup>

1. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles.
2. Maintenance of forest ecosystems health and vitality.
3. Maintenance and encouragement of productive functions of forests (wood and non-wood).
4. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems.
5. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water).
6. Maintenance of other socio-economic functions and conditions.<sup>12</sup>

Criterion 6 deals with the legal issues associated with sustainable forest management. The relevant legal criteria from the Helsinki Process are:

6.28 – Existence of a legal/regulatory framework, and the extent to which it:

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<sup>8</sup> An electronic copy available at [http://www.mcpfe.org/resolutions/helsinki/resolution\\_h1.pdf](http://www.mcpfe.org/resolutions/helsinki/resolution_h1.pdf) at 30 November 2006.

<sup>9</sup> The Criteria and Indicator approach was originally pioneered by the International Tropical Timber Organization in 1992. This report was called “Criteria for the Measurement of Sustainable Tropical Forest Management and was published in March 1992. The International Tropical Timber Organisation updated its criteria and indicators in 1998 and 2005. An electronic copy of the updated criteria and indicators is available at <http://www.itto.or.jp/live/PageDisplayHandler?pageId=201> at 30 November 2006.

<sup>10</sup> An electronic copy available at <http://www.mcpfe.org/resolutions/helsinki> at 30 November 2006.

<sup>11</sup> These are the original six criteria, they have undergone changes. An electronic copy available at [http://www.mcpfe.org/mcpfe/resolutions/lisbon/resolution\\_l2a2.pdf](http://www.mcpfe.org/mcpfe/resolutions/lisbon/resolution_l2a2.pdf) at 30 November 2006.

<sup>12</sup> Most Criteria and Indicator process now have seven criteria and have been modified off these original six criteria. See Chapter 3 for more detailed discussion of current Criteria and Indicators.

- provides for programs and management guidelines which recognise cultural heritage in relation to forestry.

6.29 – Existence and capacity of an institutional framework to:

- develop and maintain programs to conserve culturally valuable sites and landscapes.

6.30 – Existence of economic policy framework and financial instruments, and the extent to which it:

- provides for sufficient financial incentives for acknowledgement of cultural values in forest management planning.

6.31 – Existence of informational means to implement the policy framework, and the capacity to:

- conduct studies on proportion of culturally valuable sites and sites with special visual value.

The criteria and indicator definition of sustainable forest management is not a norm of international law. This is because the criteria and indicator process was created by transnational negotiation. In addition, the criteria and indicator process does not require implementation. It is a definitional tool in form. The criteria and indicator process was, therefore, successful at creating and outlining the requirements for sustainable forest management. These criteria are designed for use by states at the individual state level, and each is responsible for ensuring that their forest regulation addresses the criteria outlined in the definition. The process provides states with a framework for assessing their progress towards sustainable forest management. The criteria and indicator definitional approach to sustainable forest management should be adopted as the universal measurement of sustainable forest management. If such an approach were adopted, this would go some way to resolving the confusion over global forest norms, standards and processes.<sup>13</sup>

#### **4. International Governance of Sustainable Forest Management**

The concept of sustainable forest management permeates in one form or another through all global instruments relating to forest use and management. Despite this, a clear definition of sustainable forest management has not emerged. The lack of clarity at the international level as to the concepts meaning and purpose has, thus, given states considerable flexibility in interpreting and implementing the concept. Recurring themes that surround the concept of

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<sup>13</sup> Following on from the original conception of using a criteria and indicators approach to monitor progress towards implementing sustainable forest management a number of additional programmes emerged also using the criteria and indicator approach to defining sustainable forest management. The table at the end of this chapter demonstrates that practically all countries have engaged in a criteria and indicator approach to defining sustainable forest management.



sustainable forest management include: balancing economic and ecological interests associated with forest areas; representation and recognition of all forest interests and values; and the promotion and certification of sustainable timber harvesting practices.<sup>14</sup> It has been suggested that, in essence, the concept is generally understood to refer to the ways and processes of managing forest resources to meet society's varied needs, today and tomorrow, without compromising the ecological capacity and the renewal potential of the forest resource base.<sup>15</sup>

International forestry regulation is extremely fragmented in form. In addition to being fragmented, sustainable forest management requirements remain largely voluntary in nature. Many developing countries require significant capacity-building assistance<sup>16</sup> and direct foreign investment to be able to implement sustainable forest management practices.<sup>17</sup> A number of competing public international regimes – such the United Nations Forum on Forestry, the United Nations Framework Convention on Climate Change, and the World Bank (among others) – all create individual sustainable forest management standards and requirements. In addition, private forestry international institutions – such as the criteria and indicator processes, forestry certification schemes and forestry markets – have emerged. They create new processes and mechanisms for achieving sustainable forest management.<sup>18</sup> It is widely recognised within all of these institutions that there is duplication, overlap and need for streamlining of sustainable forest management obligations.<sup>19</sup>

This fragmentation has resulted in a situation in which there is no one global body responsible for steering the creation of global obligations associated with sustainable forest management. Instead, a fragmented system exists in which a number of public and private forestry institutions operate.<sup>20</sup> States are, therefore, able to 'forum shop' among these competing international institutions. The participation of states with international forest regimes is dependent upon them seeing some form of benefit or incentive for engaging with that particular institution. A benefit/incentive may come in the form of political respect at the

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<sup>14</sup> P Gluck, R Tarasofsky, N Byron and I Tikkanen, *Options for Strengthening the International Legal Regime for Forests*, European Commission, European Forest Institute, The World Conservation Union and the Center for International Forestry Research (1997), 26.

<sup>15</sup> Sen Wang, 'One hundred faces of sustainable forest management' (2004) 6 *Forest Policy and Economics* 205, 206.

<sup>16</sup> Robert Szaro, David Langor and Atse Yapi, 'Sustainable forest management in the developing world: Science challenges and contributions' (2000) 47 *Landscape and Urban Planning* 135.

<sup>17</sup> Susanna Laaksonen-Craig, 'Foreign direct investment in the forest sector: implications for sustainable forest management in developed and developing countries' (2004) 6 *Forest Policy and Economics* 359.

<sup>18</sup> All of these processes are discussed in greater detail throughout this thesis.

<sup>19</sup> The Collaborative Partnership on Forests has created a report and website dedicated to streamlining sustainable forest management requirements. For further information see <http://www.fao.org/forestry/cpf-mar/en/>

<sup>20</sup> For a discussion of public and private forest regulation at the state level see Frederick Cabbage and David Newman, 'Forest policy reformed: A United States perspective' (2006) 9 *Forest Policy and Economics* 261.

international or domestic level for taking action on an issue, or may come in the form of a financial incentive (for example, new business opportunities). The current public international institution that focuses solely on forest issues (the United Nations Framework on Forests) offers no significant incentives to governments and, furthermore, provides no determinative guidance on issues related to sustainable forest management. The success of the United Nations Forum on Forestry is limited and, as such, questions have arisen as to its usefulness in addressing global forest issues.<sup>21</sup>

Current operational deficiencies in the international regulation of forestry must be overcome. The current arrangement does not provide clear rules and measurable standards, appropriate financing and positive incentives, technology transfer, consensus on a bottom-up and holistic approach, coordination between institutions and policies at all levels, nor a permanent forum for dialogue and equitable resolution of conflicts.<sup>22</sup> The real issues in international forestry negotiations that need to be addressed include increasing the amount of protected forest estate according to specified targets, managing productive forests in a sustainable manner and in building capacity within developing countries for forest conservation and management.

## 5. The Legal Requirements of Sustainable Forest Management

The definition of sustainable forest management involves a number of concepts that need to be further analysed to understand the role of law in implementing the sustainable forest management concept. The definition of sustainable forest management (reproduced below) will be examined by identifying and analysing all forest values, interests and services recognised by the concept.

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.

- *Biodiversity values*: this will require law that seeks to protect forest areas of high biological wealth.
- *Productive values*: this will require law that defines certain forest areas as productive, and prescribes how forest operations are to be conducted within these defined areas.
- *Regeneration capacity*: this will require the law to define regeneration and set out guidelines that require a certain standard.

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<sup>21</sup> David Humphreys, *Logjam: Deforestation and the Crisis of Global Governance* (2006).

<sup>22</sup> Richard Tarasofsky, 'Assessing the International Forest Regime: Gaps, Overlaps, Uncertainties and Opportunities' in Richard Tarasofsky (ed) *Assessing the International Forest Regime* (1999) 1, 3.

- *Vitality*: again, the law will have to define vitality and set out guidelines that require a certain standard.
- *Ecological values*: the law must give recognition to all of the ecological services that forest areas provide. Once these services are recognised, the law must ensure that these services continue by creating regulation that prohibits interference with these services.
- *Economic values*: the law must give recognition to all forest economic interests. This must include emerging economic forest values such as PES (Payment for Ecosystem Services) and traditional timber and non-timber economic values.
- *Social values*: the law must identify all social values associated with forest areas. This will include stakeholder engagement with indigenous groups, community groups, landholders and other interested parties. Once social values are identified, the law must recognise and, where necessary, create protection for forest areas with strong social values.
- *Local interests*: the law must identify local interests in forest areas; this will require active stakeholder engagement. Once local interests are identified, the law must give recognition and, where necessary, protection to local forest interests.
- *National interests*: the law must identify national interests in forest areas; this will require research into all forest uses from a national level. Once a report is completed, the law may require amendment to recognise and protect all national forest interests.
- *Global interests*: the law must identify global interests associated with forest areas. Such data can be retrieved from global forest reports, such as *The State of the World's Forests*. Relevant international environmental multilateral agreements will also indicate the international communities' interests in relation to forest areas.
- *Future interests*: the law must also recognise that future generations have interests associated with forest areas. Forest regulation must be created that ensures all current forest values are available for future generations.

There are a number of regulatory approaches to forest management. Previously, the predominant approach was to deem forest areas as either a 'protective' forest estate or a 'productive' forest estate. Increasingly, there is preference to manage forest areas to meet a number of ecological, economic and social criteria. An example of this is the development of forest certification schemes, primarily concerned with productive forest values, which now requires that certain ecological criteria be maintained during timber growth and harvesting practices. Similarly, forest areas previously managed for protective values – such as world

heritage areas, and national or conservation forest estates – begin to be managed to meet economic criteria through the advent of payment for ecosystem regulation.

### **A. Areas of law related to SFM**

Implementing sustainable forest management involves many areas of the law. A single legal instrument providing for all aspects of sustainable forest management is unlikely. A combination of legal instruments – including legislation, regulation, policy, standards, and codes of conduct – will need to be created. Additionally, in common law systems, judicial decisions will contribute to the implementation of sustainable forest management. It is crucial that all forest legal instruments are consistent with one another and that duplication or lack of clarity is avoided. Governing departments must be clear on their roles in forest regulation; easy-to-follow flow charts explaining the roles of private and public institutions in forest regulation should be made available to the public. The following areas of law are related to the implementation of sustainable forest management.

#### *i. Environmental law*

Bates work suggests that the main functions of environmental law are the management of natural resources, protection of biodiversity, management of pollution, waste and contaminated sites and the management of energy production and climate change.<sup>23</sup> Governments seek to ensure that natural resource use and management is carried out sustainably. The legal status of the concept of sustainable development remains unclear. Bosselmann explores the status of the principle citing authors such as Lowe, who describes it as a ‘meta’ principle, and Sands, who describes it as a principle of customary international law.<sup>24</sup> Ultimately, it is found that the principle of sustainability is best defined as the duty to protect and restore the integrity of the earth’s ecological systems.<sup>25</sup> Fisher expands upon the three limbs of sustainable development and provides the following explanation of each limb:

- economic – the perspective of resource development
- ecological – the perspective of environmental protection
- social – the perspective of conservation for present and future human needs.<sup>26</sup>

Forest regulation can be broken down to two main types: protective forest regimes, and productive forest regimes. Both of these regimes attempt to incorporate the three pillars/limbs of sustainable development.

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<sup>23</sup> Gerry Bates, *Environmental Law (7<sup>th</sup> edition) in Australia* (2010).

<sup>24</sup> Bosselmann, above n 1, 50.

<sup>25</sup> *Ibid* 53.

<sup>26</sup> Fisher, above n 2, 23.

### *ii. Planning and development law*

The largest cause of deforestation worldwide is the clearing of forest areas for urban/agricultural growth.<sup>27</sup> The area of law which regulates urban/agricultural development is planning and development law. This can prevent development in forest areas deemed to be of high conservation value. Mechanisms used within this area of law include environmental impact assessment (EIA), strategic environmental assessment (SEA) and parks and protected area zoning regulation. Other prominent examples include: official plans, zoning by laws, subdivision controls and building codes.<sup>28</sup> The purpose of an environmental impact assessment is to inform decision-makers and, usually, the general public about the predicted outcomes of a proposal, and the plans to management the environmental effects of such development.<sup>29</sup> One way for planning and development law to embrace the concept of sustainable forest management is to require developers to replace all forest values lost during their development. This would normally require reforestation or afforestation of a nearby area.<sup>30</sup>

### *iii. Property law*

Property law underlies most forest regulation. Fisher suggests that rights of ownership and control are the fundamental grundnorm underpinning the legal arrangements to which natural resources are managed.<sup>31</sup> Property is significant in two main ways. Firstly, the tenure of forest areas – that is, how the forest area is legally owned: public ownership, private ownership, community ownership, or temporary ownership (such as a lease or licence). The type of ownership directly affects the nature of the regulation created to manage different forest areas. Secondly, the individual property rights associated with forest areas. It is possible, and indeed common, for one forest area to have multiple property-related interests over the forest land. For example, one person may hold title to the land, another person may hold title to the trees, and yet another may hold title to the environmental services provided by the trees (i.e. forest sequestration or a biodiversity credit). Property law needs to recognise and provide secure protection to all forest property interests. Bates further finds that the existence of property rights in environmental resources may, in certain instances, provide individuals with support in standing for legal proceedings.<sup>32</sup>

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<sup>27</sup> Eric F Lambin et al, 'The causes of land-use and land-cover change: moving beyond the myths' (2001) 11 (4) *Global Environmental Change*, 261.

<sup>28</sup> Carolyn Abbot, 'Environmental Command Regulation' in Benjamin J Richardson and Stepan Wood (ed), *Environmental Law for Sustainability* (2006), 61, 73.

<sup>29</sup> Gerry Bates, *Environmental Law (6<sup>th</sup> edition) in Australia* (2006), 313.

<sup>30</sup> See on general concept of environmental offsets and banking: Jane Scanlon, 'An Appraisal of the NSW Biobanking Scheme to Promote the Goal of Sustainable Development in NSW', (2007), 4, *Macquarie Journal of International and Environment Law*, 71.

<sup>31</sup> Fisher, above n 2, 79.

<sup>32</sup> Bates above n29, 150.

#### iv. Constitutional law

“A constitution carries with it great weight and influence simply because of its status. In this sense it represents a set of principles and even ideologies, whether stated directly or implied, that are seen to sustain and permeate the rest of the legal system to the extent that they are relevant to the issue under consideration. It represents, in other words, a number of the fundamental values of a legal system.”<sup>33</sup>

As the above quotation by Fisher suggests, constitutions have great influence over every area of law. In federal countries, a constitution may broadly define the role of federal and state government in environmental management and protection.<sup>34</sup> Some constitutions contain direct statements concerning forest use and management, while others may indirectly impact upon forest regulation –for example, statements about land and property use. Constitutional norms that oblige governments to protect the environment or give citizens enforceable rights to a clean and healthy environment may be more secure than statutory rights, which are more vulnerable to change or repeal by the government of the day.<sup>35</sup> However, the enforceability of constitutional provisions is dependent upon the willingness of the courts to interpret and elaborate on their application.

#### v. Indigenous law

Indigenous law is based upon the customary laws and traditions of first-nation people. A central feature of most indigenous cultures is a close connection with nature. As such, indigenous law can and has been incorporated into a number of environmental regulatory regimes<sup>36</sup> Indigenous groups often have a strong connection with the natural environment (including forest areas). This area of law has the ability to change forest management because indigenous forest practices might be carried out over indigenous forest areas, or might be adopted by government agencies and private landholders. For example, in Australia, the fire-burning forest practices of the Aboriginal population have informed national park management practices. These practices have been adopted to improve biological diversity in areas that previously evolved in response to periodic burning of the Spinifex landscape.<sup>37</sup> The United Nations Declaration on the Rights of Indigenous Peoples creates a number of principles aimed at increasing the legal recognition and legal rights of indigenous people. These

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<sup>33</sup> Douglas E Fisher, *Australian Environmental Law: Norms, Principles and Rules* (2<sup>nd</sup> ed, 2010), 82.

<sup>34</sup> For a summary and analysis of the role of the Australian federal government’s role in environmental regulation see *Ibid*, 94 and Bates above n 23, 105.

<sup>35</sup> Benjamin Richardson and Jona Razzaque, ‘Public Participation in Environmental Decision-Making’ in Benjamin J Richardson and Stepan Wood (EDS), *Environmental Law for Sustainability* (2006), 166, 177.

<sup>36</sup> Benjamin Richardson and Donna Craig, ‘Indigenous Peoples, Law and the Environment’ in Benjamin J Richardson and Stepan Wood (EDS), *Environmental Law for Sustainability* (2006), 210-224. This work examines incorporation of indigenous practices across many regions such as Latin America, East and South Asia, Scandinavia, Canada, Australia, New Zealand, and the United States of America.

<sup>37</sup> R Kimber, ‘Black Lightning Aborigines and Fire in Central Australia and the Western Desert’ (1983) 18 *Archaeology in Oceania* 38.

principles are potentially relevant in the management and use of forests owned and claimed by indigenous people.

#### *vi. International law*

“Environmental protection is an international or global issue due to the biophysical reality that supersedes the political division of the globe into sovereign states and areas beyond state jurisdiction. Ecosystems are interrelated in profound and complex ways. Due to these interrelationships, environmental impacts can have widespread repercussions across vast distances and over long periods of time. As a result, no state acting alone can hope either to protect the environment within its own territory or to account for the global impacts of the activities carried out on its territory”.<sup>38</sup>

Compared to other areas of international law – such as human rights law, international labour law, or international trade law – international environmental law is less developed. There are no global treaties creating fundamental rights or obligations – instead, international environmental instruments focus on specific environmental values or problems.<sup>39</sup> There are a number of international environmental legal principles, such as responsibility and prevention, sustainable development, the precautionary principle, and the polluter-pays principle.<sup>40</sup> The New Delhi Declaration on sustainable development provides some guidance on international environmental law, and requires a comprehensive and integrated approach to economic, social, and political practices.<sup>41</sup>

International forest law has the ability to directly, or at least indirectly, influence domestic forest law. International forest law creates global forest objectives that represent global interests as opposed to individual state interests. As outlined earlier, a number of different international forest standards and policies exist, and this results in a lack of consistent domestic forest policy. One international mechanism that has achieved wide-ranging implementation has been the creation of National Forest Policies, which incorporate the criteria and indicator approach to measuring progress towards sustainable forest management.<sup>42</sup>

#### ***B. Legal instruments as tools for sustainable forest management***

Dovers and Connor work identifies the main types of instruments used in environmental regulation: research and development; information and education; economic instruments; self-regulation and voluntarism; direct or ‘command’ regulation; legislation and quasi-

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<sup>38</sup> Jay Ellis and Stepan Wood, ‘International Environmental Law’ in Benjamin J Richardson and Stepan Wood (ed), *Environmental Law for Sustainability* (2006), 343, 344.

<sup>39</sup> Bosselman, above n1, 56.

<sup>40</sup> Andrew Mitchell and Jennifer Beard, *International Law in Principle* (2009), 291-295: responsibility and prevention, sustainable development, precautionary principle, polluter pays principle.

<sup>41</sup> For further information on the principles see Bosselman, above n1, 56.

<sup>42</sup> This is discussed in more detail in Chapter five.

legislation; institutional and organisational reform; and deliberate inaction.<sup>43</sup> To achieve sustainable forest management, a combination of the instruments identified above need to be used. However, as Dovers and Connor warn: “Policy instrument choice is a crucial matter, but is often based on convenience, disciplinary bias or familiarity rather than informed judgement”.<sup>44</sup> To make an informed judgement concerning instrument choice for sustainable forest management, it is necessary to identify all values/interests covered by the concept. The major ones can be broken down into three categories:

- *Protective forest values*, which have generally been protected by restrictive legislative schemes (however, the emergence of forest markets is providing new avenues to finance forest conservation)
- *Productive forest values*, which are generally regulated by codes of conduct by both government and the forest industry
- *Social forest values*, which are probably best protected through legislative schemes

Biodiversity forest values, ecological forest values and social forest values will generally be recognised through protective legislative instruments. These instruments may be generic in form or location-specific, depending upon the particular forest values being protected. New methods of legal regulation are developing to protect biodiversity and ecological and social forest values. Payment for forest services means that traditional methods of protecting forest areas (for example, creating conservation parks) are gradually being expanded to include market-based approaches to achieve ecological outcomes. Locking forest areas up in national park status is no longer viewed as the most effective way to protect certain forest values.<sup>45</sup> Forest reserves and parks will often require maintenance and upkeep expenses for which the public sector is unwilling or unable to finance fully. Creating economic interests in forest areas may mean that protection and associated maintenance of forest areas are carried out at the expense of private investors. Traditional legislative instruments would still be required to protect the area from future development, while the creation of economic interests will result in the private sector being responsible for the expense of protecting these areas.

Productive forest values, regeneration capacity and vitality will generally be regulated under legislative instruments and voluntary codes/standards. Forest regulation was first introduced to ensure a supply of timber; however, the goal of a continual timber supply now must take

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<sup>43</sup> Stephen Dovers and Robin Connor, ‘Institutional and Policy Change for Sustainability’ in Benjamin J Richardson and Stepan Wood (ed), *Environmental Law for Sustainability* (2006), 21, 29.

<sup>44</sup> *Ibid*, 28.

<sup>45</sup> Tanya Hayes and Elinor Ostrom, ‘Conserving the World’s Forests: Are Protected Areas the Only Way?’ (2009) 38 *Indiana Law Review*, 595.



into consideration sustainability and silvicultural principles. Legislative instruments will be utilised to define forest areas where timber processing is lawfully allowed to take place. Generic legislation may exist concerning plantation areas, and site-specific legislation may exist for native forest where timber processing occurs. Forest legislation often deals with the big picture issues, such as definitions, application processes, allocating responsibility for implementing the instrument, and prescribing certain requirements. Codes of conduct and industry standards are instruments that change frequently and are often not legally binding, but which do deal with specifics of how forest operations are to be conducted. The definition of regeneration capacity and vitality as elements of sustainable forest management should be incorporated into both broad, binding legislative instruments, and also in voluntary specific instruments.

The law may seek to protect local interests in forest areas by creating a site specific piece of legislation, recognising the local interest in the forest area – the objective of the legislation would be to protect local forest interests from outside threats. Local interests in forest areas are diverse, and range from wanting to use the forest area for daily living requirements and income to wanting to protect the local forest area from future development and use. Informal and formal agreements between governments and local communities may also be useful for recognising local forest interests. National interests in forest areas will be identified from national surveys and research that identify national forest interests. These interests will usually be given legislative protection, and accompanying regulations may be created to detail specifics of these interests. Governments may create policy documents that set goals for forest areas in the future, or which indicate a government’s intention for future forest management. These policy documents will often be indicative of future forest legislative action. Formal and informal agreements may be reached between private forest landowners and governments, and agreements may also be made between individual states within a nation concerning forest use.

## **6. Assessing the Effectiveness of Global Forest Regulation**

According to the *Macquarie Dictionary*, the ordinary meaning of the term ‘effective’ is to produce the intended or expected results. To assess the effectiveness of a law, it is necessary to measure how successful the law in was solving the problem that it was designed to address.<sup>46</sup> When assessing the effectiveness of global agreements, there should be a measure in tangible environmental improvements, and effectiveness should be judged on environmental

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<sup>46</sup> McGrath explores the concept of ‘effectiveness in some detail in the following publication Chris McGrath, *Does environmental law work? How to evaluate the effectiveness of an environmental legal system*, Lambert Academic Publishing, (2010), Chapter 2.

results. McGrath suggest that reform to improve the effectiveness of a law should focus on achieving real results, adopting a problem-solving approach, and should include the formation of collaborative partnerships.<sup>47</sup>

To examine whether global forest governance is achieving its intended outcomes, it is necessary to clarify what the intended or expected global forest outcomes are. As discussed earlier in this chapter, the achievement of sustainable forest management is the intended outcome of all international forest policy. To measure progress towards achieving this target, a number of criteria will be used. The following criteria will be applied in the concluding chapter when assessing the effectiveness of global forest governance:

- The existence of clear global forest objectives, with a preference for measured target goals.
- Evidence of good global forest governance arrangements (integrated, accountable, representative, equitable and adaptive).
- Evidence of implementation of the concept (definitional processes, reporting upon progress made and future progress needed).
- Improvement in forest conditions – a tangible improvement in the quality and quantity of forest ecosystem services.

In terms of examining the above criteria, it will be necessary to examine the theory of sustainable forest management, the law of sustainable forest management and, importantly, the practice of sustainable forest management activities.

## **7. Conclusion**

This chapter has examined the concept of sustainable forest management. While some progress has been in creating tools for defining and measuring the concept, there is still a large gap when it comes to measuring the implementation of the concept. The international governance arrangements underpinning sustainable use and management of forest resources are exceptionally fragmented; they cause extreme inefficiency as a result of duplication and overlap of international forest norms and standards. The arrangements concerning the global governance of forest resources are in dire need of reform that is aimed at streamlining and strengthening obligations. At the national level, the governance arrangements necessary for implementing sustainable forest management are complex. This chapter explored a number of areas of law relevant to the concept. The range of economic, social and environmental values associated with forests means that a number of different areas of law are required to develop the concept. Similarly, a range of legal instruments should be used by those responsible for

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<sup>47</sup> Ibid

regulating forest areas. The governance of sustainable forest management is complex, and an integrated approach to regulation is required.

**Table of Criteria and Indicator Processes<sup>1</sup>**

Name of Process	Date Process Originated	States in Process
The Pan-European Forest Process on Criteria and Indicators for Sustainable Forest Management	This process was initiated in Helsinki, Finland in June 1993 and finalised in Lisbon, Portugal in June 1998.	Albania, Austria, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, European Community, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovak Republic, San Marino, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and Yugoslavia
Non-European Process on Criteria and Indicators for Sustainable Forest Management (known as the Montreal Process).	The process was initiated in Geneva, Switzerland in June 1994 and endorsed in February 1995 by the Santiago Declaration.	Argentina, Australia, Canada, Chile, China, Japan, Republic of Korea, Mexico, New Zealand, Russian Federation <sup>1</sup> , United States of America and Uruguay.
Tarapoto Process on the Amazon Forest's Sustainability Criteria and Indicators.	This process took place in February 1995 at a workshop held in Tarapoto–Peru.	Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela.
The Dry Zone Africa Process on Criteria and Indicators for Sustainable Forest Management.	This took place in Nairobi, Kenya in November 1995.	Burkina Faso, Capre Verde, Chad, Gambia, Guinea Bissau, Mali, Mauritania, Niger, Senegal, Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan, Uganda, Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibian, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe.
The Near East Process on Criteria and Indicators for Sustainable Forest Management.	This took place in Cairo, Egypt in October 1996.	Afghanistan, Algeria, Azerbaijan, Bahrain, Cyprus, Djibouti, Egypt, Islamic Republic of Iran, Iraq, Jordan, Kuwait, Kyrgyz Republic, Lebanon, Libya, Malta, Mauritania, Morocco, Oman, Pakistan, Qatar, Kingdom of Saudi Arabia, Somalia, Sudan, Syria, Tadjikistan, Tunisia, Turkey, Turkmenistan, United Arab Emirates and Yemen.
Lepaterique Process of Central America on Criteria and Indicators for Sustainable Forest Management.	This took place in Tegucigalpa, Honduras in January 1997.	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.
International Tropical Timber Process for Criteria and Indicators.	This took place in Yokohama, Japan in March 1992.	(55 countries: 29 producers, 25 consumers and the European Union): Australia, Austria, Belgium/Luxembourg, Bolivia, Brazil, Cambodia, Cameroon, Canada, Central African Republic, China, Colombia, Cote-d'Ivoire, Democratic Republic of Congo, Denmark, Ecuador, Egypt, European Union, Fiji, Finland, France, Gabon, Germany, Ghana, Greece, Guyana, Honduras, India, Indonesia, Ireland, Italy, Japan, Liberia, Malaysia, Myanmar, Nepal, The Netherlands, New Zealand, Norway, Panama, Papua New Guinea, Peru, Philippines, Republic of Congo,

<sup>1</sup> The Table is based on information from a report of the Food and Agriculture Organisation of the United Nations, an electronic copy of the report is available at <http://www.fao.org/DOCREP/004/AC135E/AC135E00.HTM> at 30 November 2006.

		Republic of Korea, Spain, Suriname, Sweden, Switzerland, Thailand, Togo, United Kingdom, Unites States of America and Venezuela.
The African Timber Organisation Process for Criteria and Indicators	This took place in Libreville, Gabon in January 1993.	Angola, Cameroon, Central African Republic, Congo, Cote-d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Ghana, Liberia, Nigeria, Sao Tome et Principe and Tanzania.
Regional Initiative for the Development and Implementation of National Level Criteria and Indicators for the Sustainable Management of Dry Forests in Asia.	This took place in Bhopal, India December 1999.	Bangladesh, Bhutan, China, India, Mongolia, Myanmar, Nepal, Sri Lanka, and Thailand.

The different processes have been created to reflect the different criteria and indicators required for different forest bio-regions. Classification upon forest biome does increase the level of fragmentation from a governance perspective. In the event that a global body was created to steer the international forest regulation, it should be encouraged, where possible, to streamline the different criteria and indicator processes.

## **PART THREE:**

### **INTERNATIONAL REGULATION BY PUBLIC FOREST INSTITUTIONS**

International forestry regulation involves a complicated matrix of public and non-state institutions. There is no one apparent body responsible for overseeing a global forest agenda. This results in international forest regulation being exceptionally fragmented. The number of international, transnational, private, public, NGO, research bodies and other forest stakeholder's institutions is overwhelming. It would be an impossible task to list and examine all bodies engaged in creating international policy on sustainable forest management. This extreme fragmentation in governance results in a large number of duplicate and overlapping processes competing not only for regulatory legitimacy, but also for funding. This fragmentation also contributes to ensuring confusion as to the global objective for forest use and management. Unlike other environmental specific international regimes, the international forest regime lacks a supreme institutional authority and accompanying legally binding convention. This had led to interesting developments in international forestry regulation, most notably creating a space for non-state international forestry regulation to emerge.<sup>1</sup>

This thesis examines five international forest governing regimes in detail. Three of those are institutions under public governance arrangements: United Nations Forum on Forestry; regulation of forests under the international climate-change regime; and regulation of forest resources under World Bank policy. The three public bodies selected for examination were chosen due to their varying forest focuses and approaches to regulation. The United Nations Forum on Forestry focuses on all forest values; the International Climate Change regime focuses on the carbon values of forests while the World Bank forestry policy explores the linkages between forests and poverty. The other two regimes describe private governance arrangements. The lack of an integrated international public forest regime has allowed for the development of alternative forest regulation. These bodies were also selected as they are the dominant players on the international forestry stage.

There are, of course, other public international bodies responsible for forestry regulation, such as the Convention on Biological Diversity, the Ramsar Wetlands Convention, the Desertification Convention, and forest programmes carried out by the Food and Agricultural Organisation. The three main objectives of the Convention on Biological Diversity are set in Article 1: 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. Of

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<sup>1</sup> See generally on the expansion of private international governance: Robert Falkner, 'Private Environmental Governance and International Relations: Exploring the Links' (2003) 3 (2) *Global Environmental Politics*, 72, 79.

particular relevance to forestry is the programme created in 1998 entitled 'The 12 goals of the Convention on Biological Diversity's Expanded Programme of Work on Forest Biological Diversity'. The forest values and relationships explored by the Convention on Biological Diversity include indigenous and community forest rights, the preservation of biological diversity found in forest areas, sustainable use of biological diversity.

The Ramsar Convention on Wetlands of International Importance seeks to ensure the conservation and wise use of all wetlands through local and national actions. The Ramsar convention is not affiliated with the United Nations system of Multilateral Environmental Agreements. However it is a partner to the "biodiversity-related cluster" of treaties and agreements. Wetlands are given a broad definition for the purposes of the convention and include lakes, rivers, swamps, marshes, wet grasslands and peatlands, oases, estuaries, deltas, tidal flats, near-shore marine areas, mangroves, coral reefs and human-made sites such as fish ponds, rice paddies, reservoirs and salt pans. Wetlands are valued for their contributions to biological diversity, food production (e.g. rice) and hydrological services. Markets for preserving wetland services have been successfully operated in the United States of America since the 1970's which is discussed in more detail in chapter eight.

The United Nations Convention to Combat Desertification seeks to combat desertification and mitigate the effects of drought in countries experiencing serious drought and or desertification. Combating desertification includes a number of activities linked to forestry practices: prevention and or reduction of land degradation, rehabilitation of partly degraded land and reclamation of desertified land. A number of national, regional and sub-regional programmes are developed under the Convention for implementation at local levels. These National Action Programmes are developed as a participative approach involving local communities and spell out practices, steps and measures to be taken in combating desertification in specific ecosystems.

The Food and Agricultural Organisation leads international efforts to defeat hunger. The Food and Agriculture Forestry Department seeks to assist countries to manage their forests in a sustainable way. The FAO Strategy for Forests and Forestry created in 2010 deals with all forest values and sets three goals: to make decision-making across sectors, better coordinated, transparent and participatory, to recognise and appreciate more widely the benefits from trees, forests and forestry are increasingly widely recognized and appreciated, and to recognise and value that forest resources are increasing in a majority of countries and ecosystem services are increasingly recognized and valued. As this brief discussion demonstrates there are a large number of public international bodies engaged either directly or indirectly in the regulation of forest areas. As discussed in Chapter four global governance of forestry

regulation needs to become more integrated and streamlined to improve efficiency and reduce overlap and duplication.

The two non-state regimes explored in this thesis are forestry markets schemes and forestry certification schemes. These two regulatory approaches were selected as they are two main forms of private forest regulation. For consistency and methodological purposes, the institutional structure – the principal instruments of the body and its progress in implementation – is examined for each of the five international forest regulatory approaches.

The distinction drawn between public regulatory regimes and non-state regulatory regimes within this thesis has been drawn so as to demonstrate the different governing arrangements involved in these two forms of regulation. Both public and non-state regulatory approaches require examination. This is because it is a combination of all forms of governance that create international forestry norms and practices. The term ‘public regulatory regime’ has been used to describe bodies within the United Nations system. The Charter of the United Nations created six principal organs: the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice and the Secretariat. Each of the three public bodies examined within this thesis are regulated under different organs of the United Nations.<sup>2</sup> The term ‘non-state’ has been used to describe regimes independent of the United Nations system.

The United Nations Charter defines the purpose and membership requirements of these processes. Article 1(3) provides that the purpose of the United Nations is to achieve international co-operation in solving international problems of an economic, social, cultural or humanitarian character. This is broadly enough stated to include environmental issues, though these were not specially listed when the charter was drafted in 1945. In addition, Article 2(1) provides that the organisation is based on the principle of sovereign equality of all its members. These two features of the United Nations system clearly influence the nature of obligations created by United Nations bodies. Article 4(1) of the United Nations Charter provides that membership of the United Nations is open to all peace-loving states that accept the obligations contained in the present Charter and, in the judgement of the organisation, are able and willing to carry out these obligations. These purpose and membership clauses mean that public international regulation is fundamentally very different in nature from domestic legal regulatory arrangements.

The United Nations Forum on Forestry falls under the Economic and Social Council of the United Nations. The international forest regime lacks a legally binding instrument – there is,

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<sup>2</sup> The United Nations website provides a useful visual diagram on the United Nations System  
[http://www.un.org/aboutun/chart\\_en.pdf](http://www.un.org/aboutun/chart_en.pdf)



for example, no such thing presently as a 'Forests Convention'. For this reason, no United Nations Secretariat has been created to implement the instrument, and this explains why the United Nations Forum on Forestry reports directly to the Economic and Social Council. The creation of the Forum on Forestry as a body under the Economic and Social Council was intended to enhance the international profile for forests<sup>3</sup> – however, as will be discussed further in Chapter Four, the creation of the body alone has not significantly altered the international governance of sustainable forest management.

The World Bank is a specialised agency also falling under the umbrella of the Economic and Social Council of the United Nations. Article 57 of the United Nations Charter allows for specialised agencies to be created by intergovernmental agreement. These specialised agencies are then brought into a relationship with the United Nations system through Article 63 of the Charter. Under this article, the relationship between the United Nations and the specialised body is defined by an agreement between the two bodies. The Secretariat to the United Nations Framework Convention on Climate Change falls with the other UN Entities, Secretariat category. The Secretariat of the Climate Change Convention provides organisational support and technical expertise to the regime.

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<sup>3</sup> David Humphreys, *Logjam: Deforestation and Crisis of Global Governance* (2006), 91.

## CHAPTER FIVE: The Role of the United Nations Forum on Forestry

### 1. Introduction

The United Nations Forum on Forestry is a unique member of the United Nations family. This is due not only to its status<sup>1</sup> within the United Nations framework, but also because of the political history leading to its current form and mandate. The body is probably more noteworthy for its shortcomings than its achievements. These shortcomings are worth examination because the forest challenges causing deadlock within this setting reappear when other intergovernmental bodies attempt to create international forest policy.<sup>2</sup> The purpose of the forum is to provide an intergovernmental policy-negotiating platform that promotes the management, conservation and sustainable development of all types of forests, and which strengthens long-term political commitment to this end.<sup>3</sup>

The United Nations Forum on Forestry's sole focus on forest-related issues could explain the lack of progress of made by this institution. Other intergovernmental institutions have appeared to be more successful in devising and implementing forest policy when they have dealt with forests in the context of another issue (for example, in relation to climate change, binding rules and methodologies concerning the use of forest sinks and sources).<sup>4</sup> The World Bank has tackled the forest policy challenge by linking forests and livelihoods concerns.<sup>5</sup> It appears that states are more willing to negotiate in the forest context when there will be dual benefits: a forest benefit; and some other benefit, either financial or social. This type of dual focus seems to remove some of the political tensions that arise when forest issues are addressed in isolation. Traditionally, within forestry negotiations, there are stakeholders advocating for binding, target-driven regulatory approaches, counter-balanced by a strong opposition viewing the introduction of any such type of regulation as an infringement of state sovereignty.<sup>6</sup>

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<sup>1</sup> It is only subsidiary body of the ECOSOC with universal membership and forum reports to a parent body of a smaller membership: David Humphreys, *Logjam: Deforestation and the Crisis of Global Governance* (2006).

<sup>2</sup> Jade Saunders, Hohannes Ebeling and Ruth Nussbaum, *Reduced Emissions from Deforestation and Degradation: Lessons from a forest governance perspective*, ProForest, Ecosecutites and Chatham House, (2007).

<sup>3</sup> Forest Principles 2007, principle 1  
<http://daccessdds.un.org/doc/UNDOC/GEN/N07/469/65/PDF/N0746965.pdf?OpenElement>

<sup>4</sup> See chapter six.

<sup>5</sup> See chapter seven.

<sup>6</sup> Humphreys, above n1, Chapter Five.

## 2. The Institutional Structure of the United Nations Forum on Forestry

### A. The development of an international forest institution

The United Nations Forum on Forestry (UNFF) is the only international institution that focuses solely on forest issues. As discussed above this focus may explain the lack of progress made by the body. Following the Rio negotiations in 1992, an international forest body was created known as the Intergovernmental Panel on Forestry that operated from 1995 to 1997. After this, the body was renamed the International Forum on Forestry and operated from 1997 to 2000. Both of these international forest institutions carried out similar roles to the United Nations Forum on Forests, namely the provision of an international platform for forest negotiations.

In 2000, the United Nations Forum on Forestry was created under ECOSOC Resolution/2000/35<sup>7</sup>. At the commencement of the forum's reign, it was envisaged that the body would continue in operation until 2005. In 2005, at the seventh session of the United Nations Forum on Forestry, a new forest instrument was drafted. In addition to this, a multi-year program of work was also drafted to implement this new forest instrument. This multi-year program of work has had the effect of informally continuing the operation of the forum until 2015.<sup>8</sup> No formal negotiations took place to extend the duration of the forum, but it seems to be accepted that the body will continue to operate, despite its lack of progress and clear leadership for the foreseeable future.

The forum is inclusive of all 'forest values' and, hence, includes productive and protective forest areas and all types of forest biome (such as tropical, boreal, native, and plantation forest types). The forum, therefore, focuses on the concept of sustainable forest management that recognises the ecological, social and economic values attributed to forest areas.<sup>9</sup> As discussed in Part One, the concept of sustainable forest management is the mutually accepted goal of all international forest-related regimes. Because sustainable forest management involves the recognition of all forest values/services, the application of this concept often leads to conflict and/or confusion as the recognition of one forest value may be incompatible with the recognition of another. This difficulty has been identified and dealt with through the evolution of sustainable forest management methodologies and implementation tools.<sup>10</sup>

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<sup>7</sup> An electronic copy available at <http://daccess-ods.un.org/TMP/9318769.html> at 22 May 2007.

<sup>8</sup> At the seventh session of the United Nations Forum on Forestry in 2007, a multi-year program was devised. This programme was adopted as the seventh session of the Forum, and has had the effect of continuing its existence until 2015. See United Nations Forum on Forestry, *Multi-year Programme of Work 2007-2015*, (2007) United Nations Forum on Forestry <http://www.un.org/esa/forests/multi-year-work.html> at 1 December 2009.

<sup>9</sup> Gordon Hickey, 'Evaluating sustainable forest management' (2008) 8 *Ecological Indicators* 109, 111.

<sup>10</sup> Frederick Cabbage, Patrice Harou and Erin Sills, 'Policy instruments to enhance multi-functional forest management' (2007) 9 *Forest Policy and Economics* 833.

Examples of this are evolved forest management practices and guidelines that have developed to incorporate the three thematic forest values into the management of forest areas.<sup>11</sup> This means that productive forest areas are no longer only managed with economic forest values in mind. Instead, environmental sustainability concerns – such as biodiversity and soil, and land health – are taken into consideration. In addition to this, any social values (such as the interests of special interest groups or local community) are also included within the forest management plans. Taking an integrated management approach produces the dual benefits of increased site productivity, due to improved environmental health, and improving stakeholder and community relationships.

Another example of an integrated sustainable forest management practice is evident in the management policy and plans of protected/conserved areas. Increasingly, it is becoming better understood that the fencing off of forest ecosystems will not improve the health of the forest ecosystem.<sup>12</sup> Instead, active management of the conserved/protect area can lead to improved environmental outcomes. To finance the management of these areas, payment for ecosystem services schemes and environmental banking and or trading schemes have developed that provide an economic incentive for managing the ecological values of the site.<sup>13</sup>

### ***B. Role of the United Nations Forum on Forestry***

The main objective of the Forum is to promote “the management, conservation and sustainable development of all types of forests, and to strengthen long-term political commitment to this end”.<sup>14</sup> The functions of the forum have been identified to implement this objective:<sup>15</sup>

- To facilitate the implementation of forest-related agreements and foster common understanding on sustainable forest management.
- To provide continued policy development and dialogue between governments to address forest issues and emerging areas of concern in a holistic comprehensive and integrated manner.
- To enhance cooperation and coordination on forest related issues.
- To foster international cooperation.

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<sup>11</sup> Reference forest policy/code from Australia

<sup>12</sup> Tanya Hayes and Elinor Ostrom, ‘Conserving the World’s Forests: Are Protected Areas the Only Way?’ (2009), 38, *Indian Law Review*, 595.

<sup>13</sup> Markets for environmental services are going through a growth period. Areas that previously were managed by being placed in conservation status are now being better managed under payment for ecosystem service arrangements. See Chapter 8 for further detail.

<sup>14</sup> Resolution 2000/35

<sup>15</sup> The list of function is based on information obtained from the United Nations Forum on Forestry website. The functions have not been reproduced in full. Please refer to United Nations Forum on Forestry, *About UNFF*, (2007) United Nations Framework on Forestry <http://www.un.org/esa/forests/about.html> at 2 December 2008.

- To monitor, assess and report on the progress of the above functions and objectives.
- To strengthen political commitment to the management, conservation and sustainable development of all types of forests.
- To enhance the contribution of forests to the achievement of internationally agreed development goals (e.g. the Millennium Development Goals).
- To encourage and assist countries to develop and implement forest conservation and rehabilitation strategies, increase areas of forests under sustainable forest management, reduce forest degradation for the benefit of indigenous peoples and local communities whose livelihoods depends on forests.
- To strengthen interaction between the United Nations Forum on Forestry and relevant regional and subregional forest-related mechanisms, institutions and instruments, organisations and processes.

The functions of the Forum are weakly worded. No accountable or goal-bound function is prescribed within the list of functions. For example, the function dealing with monitoring, assessment and reporting does not actually require or stipulate that reporting, monitoring or assessment must take place – it merely suggests that, in the event of progress, reporting be carried out. It would, perhaps, be more realistic and useful for the Forum to reduce the number of functions to a more manageable workload. Many of the functions listed above discuss integration, interaction, and fostering cooperation among international forest-related processes.

Perhaps the key objective of the Forum should be the promotion of integrated action aimed at implementing sustainable forest management. This objective could then be made more accountable by introducing a number of specific functions that could be used to assess progress towards meeting this objective – for example: identify major international forest-related processes; identify inconsistencies or overlaps<sup>16</sup> among these major processes; direct stakeholders to the relevant process; create regional outreach knowledge centres; and create an all-encompassing forest reporting framework that could be used to report to all major forest processes.<sup>17</sup> These types of functions are measurable and, therefore, allow for an increase in the accountability of the Forum.

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<sup>16</sup> It is recognised that a number of international institutions forest related policy overlaps with other institutions policy. See Kristin Rosendale, 'Overlapping International Regimes: The Case of the Intergovernmental Forum on Forests (IFF) between Climate Change and Biodiversity' (2001) 1 *International Environmental Agreements: Politics, Law and Economics* 447.

<sup>17</sup> A number of these functions are currently performed by the *Collaborative Partnership on Forestry* – an international forestry research body. As a research body, the primary focus is the output of policy and information. The UNFF should act as an administrator of this research and try to ensure the implementation of the partnerships findings.

### **C. Governing bodies of the United Nations Forum on Forestry**

The forum operates through a bureau and secretariat. The bureau consists of one chairperson and four vice chairpersons (in accordance with the principle of equitable geographical distribution). The principle aims to ensure that power is jointly held and exercised. Bureau members are elected to office at the end of Forum sessions and are elected from the membership pool. The bureau has several responsibilities, which include: following up decisions made at Forum sessions; preparing for subsequent sessions; and managing and organising during sessions. No further information is available defining the parameters of what the 'follow-up' requirements are – it appears that these are relatively low-burden and do not require bureau members to track implementation or progress towards implementation. The bureau members for the eighth session of the Forum are Australia, Cuba, Indonesia, Latvia and Morocco.<sup>18</sup>

The secretariat is compact in size, consisting of 10 full-time staff members. The same secretariat also serves the Collaborative Partnership on Forests (this body is discussed in greater detail below). The secretariat is responsible for organising the logistical preparation for meetings, the timely preparation of documents and information, and servicing the meetings of the forum and bureau. The secretariat also supports and facilitates inter-session activities (such as experts meetings or government-led initiatives).<sup>19</sup> Therefore, the role of the secretariat is mainly administrative and support based.

### **D. Membership of the United Nations Forum on Forestry**

Membership to the forum is open to all states, and all nations are encouraged to send representatives to forum negotiations.<sup>20</sup> As with most international negotiating processes, a state representative is elected to attend the negotiations and represent their nation's global forest interests. The Forum is meant to provide a central place to discuss all issues associated with forest use and management. It has been suggested that the Forum has an inflexible policy agenda, and that certain issues are sometimes left unaddressed.<sup>21</sup> Typically, contentious issues such as state sovereignty, finance, capacity- building, and technology transfer dominate forest negotiations.

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<sup>18</sup> United Nations Forum on Forestry, *Member States and Bureau*, (2007) United Nations Forum on Forestry <http://www.un.org/esa/forests/about.html> at 2 December 2008.

<sup>19</sup> United Nations Forum on Forestry, *UNFF Secretariat* (2007) United Nations Forum on Forestry <http://www.un.org/esa/forests/secretariat.html> at 2 December 2008.

<sup>20</sup> Ibid.

<sup>21</sup> For example genetically modified tree species was raised by NGO's at the 4<sup>th</sup> and 5<sup>th</sup> session, but this issue still remains unaddressed. See Humphrey's above n1, 91.

Decisions at UNFF negotiations are reached by consensus. Individual states often contribute innovative and feasible policy options; however, consensus within the UNFF is difficult to achieve and, as such, progress remains slow. This type of decision-making process has led commentators to suggest that the UNFF instruments are based on the lowest common denominator and are, therefore, ineffective in changing the use and management of global forest resources.<sup>22</sup>

### ***E. Multi-stakeholder engagement***

The Forum allows for a degree of multi-stakeholder engagement, although previous Forum sessions have had inadequate stakeholder engagement. Stakeholders have traditionally contributed to sessions by making opening statements; after this, there is a period for questions and or interaction.<sup>23</sup> Any accredited delegate or observer may make a verbal intervention. It is worth noting that no resolution has ever been agreed as a result of multi-stakeholder dialogues.<sup>24</sup> The format of this engagement means that stakeholders are engaged through a process of statement submission and presentation, after which the interests of these groups is forgotten during the state versus state positional bargaining process.

The combative nature of the various state forest interests results in little time being allocated for the inclusion of other non-state stakeholder interests. There have also been cases where stakeholder's interests have not been accurately portrayed to the plenary, leading to disillusionment among the parties seeking the right for their interests to be heard and recognised.<sup>25</sup> This had led to NGOs arguing that "unless there are radical changes to ensure the effective consideration of the proposals and views of the major groups, the organization of these events should be discouraged".<sup>26</sup> This is a call for more effective stakeholder engagement within an agreed-upon governing framework.

Nine major groups have participated within forum multi-stakeholder dialogues:

- Business and industry
- Children and youth
- Farmers and small landowners
- Indigenous peoples
- Non-government organisations

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<sup>22</sup> Humphreys above n1, 103 and David Humphreys, 'The United Nations Forum on Forests: anatomy of a stalled international process' (2003) 13 *Global Environmental Change* 319, 322.

<sup>23</sup> Humphreys, above n1, 96-97.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid, 97.

- Scientific and technological communities
- Women
- Workers
- Trade unions

At the sixth session of the Forum, in 2007, it was decided that stakeholder consultation would occur as side events to the main negotiations. Although this move effectively acknowledges that the current model of stakeholder engagement is flawed, it is not particularly helpful as it sends a message that stakeholder engagement is not important enough for inclusion in the main sessions. Instead of making stakeholder engagement a side-event, a model for stakeholder meaningful stakeholder engagement needs to be introduced. The inclusion of stakeholders must be for a clear purpose, linked back to achieving a specified outcome. Groups merely presenting individual interests that are in direct contradiction to another group's interests will only add to the animosity that already exists between these groups. The Forum must decide for what purpose these stakeholders are engaged, and how their input will be incorporated.<sup>27</sup>

The inclusion of multi-stakeholders interests is important and must occur in way that is meaningful – as opposed to implementing stakeholder engagement in order to 'tick the box'. Regular consultation with stakeholder groups should take place in between official Forum negotiations, with positions summarised for inclusion at Forum negotiations. A process that responds to these summarised positions must then be created.<sup>28</sup> This could be yet another target-driven task assigned to the bureau or secretariat of the Forum. This would ensure that future policy outputs by the Forum incorporate and respond to feedback provided by forest stakeholders.

#### ***F. Collaboration with external international forest institutions***

The forum recognises that forest-related issues are interconnected with many other environmental issues. This means that many intergovernmental institutions have overlapping mandates concerning international resource management. For this reason, the Forum is a member of an informal voluntary international forest research network. The Collaborative Partnership on Forests (CPF) consists of 14 intergovernmental institutions that all work on forest-related issues. This network encourages dialogue and interchange about forest research

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<sup>27</sup> For further information on stakeholder engagement and dialogue, see Jeffery Unerman, 'Stakeholder engagement and dialogue', in Jeffrey Unerman, Jan Bebbington and Brendan O'Dwyer (ed) *Sustainability Accounting and Accountability* (2007) 86, 88-89.

<sup>28</sup> A multi-stakeholder process is described in Minu Hemmati, *Multi-Stakeholder Processes for Governance and Sustainability: Beyond Deadlock and Conflict* (2002) 211. This process involves five phases: i) context; ii) framing; iii) inputs; iv) dialogue/meetings; and v) outputs.



findings and opens lines of communication between members in relation to policy developments and lessons. The CPF has open membership, and the 14 major groups involved in the partnership are:

- Center for International Forestry Research (CIFOR)
- Food and Agricultural Organisation of the United Nations (FAO)
- International Tropical Timber Organisation (ITTO)
- International Union of Forest Research Organisations (IUFRO)
- Secretariat of the Convention on Biological Diversity (CBD)
- Secretariat of the Global Environment Facility (GEF)
- Secretariat of the United Nations Convention to Combat Desertification (UNCCD)
- United Nations Forum on Forestry Secretariat (UNFF)
- Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC)
- United Nations Development Program (UNDP)
- United Nations Environment Program (UNEP)
- World Agroforestry Center (ICRAF)
- World Bank
- World Conservation Union (IUCN)

The CPF does not provide a forum for inter-governmental institutions to meet and discuss conflicting or duplicating policy. Instead, it examines all relevant policy and legal instruments concerning forest areas and creates policy that attempts to find common approaches between relevant instruments. The CPF has produced three documents, which have received approval and praise from the Secretariat of UNFF:

- *International Forestry Directory*<sup>29</sup>
- *Sourcebook on Funding for Sustainable Forest Management*<sup>30</sup>
- *Streamlining Reporting*<sup>31</sup>

From a governance perspective, the report on *Streamlining Reporting* is exceptionally valuable. A major challenge for states is meeting the ever-growing demand for international environmental reports. This is particularly an issue in the forest context, because there are so

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<sup>29</sup> Collaborative Partnership on Forestry, *International Forestry Directory* (1998) [www.fao.org/forestry/site/1662/en](http://www.fao.org/forestry/site/1662/en) at 6 June 2007.

<sup>30</sup> Collaborative Partnership on Forestry, *Sourcebook on Funding for Sustainable Forest Management* (2007) [www.fao.org/forestry/site/7148/en](http://www.fao.org/forestry/site/7148/en) at 6 June 2007.

<sup>31</sup> Collaborative Partnership on Forestry, *Streamlining Reporting* (2006) [www.fao.org/forestry/site/6308/en](http://www.fao.org/forestry/site/6308/en) at 6 June 2007.

many international forest processes. The streamlining project was commenced to “to propose ways to reduce the forest-related reporting burden, for example, through reducing and streamlining reporting requests, synchronizing reporting cycles, harmonizing data collection methods and increasing data comparability and compatibility, and facilitating the accessibility and flows of existing information”.<sup>32</sup>

The report on streamlining distinguishes between the reporting requirements of actions (implementation of policy), situations, and trends (reporting forest statistics).<sup>33</sup> It defines sustainable forest management as consisting of seven thematic elements (these are based on previous work carried out by Criteria and Indicator processes):

1. Extent of forest resources
2. Biological diversity
3. Forest health and vitality
4. Productive functions of forest resources
5. Protective function of forest resources;
6. Socio-economic functions
7. Legal, policy and institutional frameworks<sup>34</sup>

The CPF proposes that reporting requirements should be based around these seven thematic elements so that reports prepared for one inter-governmental institution can be used to report to others. In the future, the CPF hopes to establish a ‘Common information Framework’, which will be a database consisting of state’s reports that are easily accessible and searchable (that is, updated regularly). Once this common information framework is established, and states provide the relevant information to the information framework, reporting requirements will decrease for individual states. This means that once a state has provided information on the seven thematic elements of sustainable forest management, that information can be used to meet the reporting requirements of many different international instruments. The creation of the CPF undoubtedly increases the interaction and communication between inter-governmental institutions. Future work carried out by the CPF could lead to greater integration of forest regulatory programs and reduce the existing overlap and inconsistency that currently exists.

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<sup>32</sup> Ibid.

<sup>33</sup> Collaborative Partnership on Forestry, *Towards a Common Information Framework for Forest-Related National Reporting to International Processes* (2003).

<sup>34</sup> Ibid.

### 3. International Instruments created by the United Nations Forum on Forestry

#### A. The Forest Principles 1992

The UNFF and its predecessor institutions (IPF and IFF) have been unable to create any legally binding instruments concerning the use and management of the world's forests. At the UNCED negotiations held in Rio de Janeiro, "The Forest Principles 1992" were developed. These principles are known as the *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests*.<sup>35</sup> The first three words of the title demonstrate the lack of mutuality between the states concerning the use and management of the world's forests.

The *Forest Principles 1992* were drafted as goals or guidelines for states to use when creating domestic forest policy. They were never intended to be a command-and-control style of instrument. In the preamble to the principles in paragraph (d) it is provided: "These principles reflect a first global consensus on forests. In committing themselves to the prompt implementation of these principles, countries also decide to keep them under assessment for their adequacy with regard to further international cooperation on forest issues".<sup>36</sup> This statement explains the objective of the principles, which was to identify some common ground in relation forest use and management and to agree to work together in the future on forest related issue at an international level. Seven general themes can be identified from Forest Principles 1992:

- The concept of sovereignty and the rights associated with sovereignty.<sup>37</sup>
- Consultation and involvement with forest stakeholders such as indigenous groups<sup>38</sup>, local community groups<sup>39</sup> and women's groups.<sup>40</sup>
- The integration and its incorporation into ecological considerations<sup>41</sup>, institutional considerations<sup>42</sup> and policy considerations<sup>43</sup>. The principles of sustainable development are also included.<sup>44</sup>

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<sup>35</sup> United Nations Conference on Environment and Development, *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all types of Forests*, UN Doc a/conf 15/126 (1992).

<sup>36</sup> Ibid.

<sup>37</sup> Ibid, Principle 1 (a), 2 (a) and 14.

<sup>38</sup> Ibid, principles 5 (a) and 12 (d).

<sup>39</sup> Ibid, principles 2 (d) and 7 (a).

<sup>40</sup> Ibid, See Principle 5 (b).

<sup>41</sup> Ibid, Principle 8 (e).

<sup>42</sup> Ibid, Principle 13 (d) and (e).

<sup>43</sup> Ibid, Principle 3 (b).

<sup>44</sup> Ibid, Principle 3 (c).

- The recognition and valuation of all forest values and services (such as ecological values<sup>45</sup>, conservation values<sup>46</sup>, social values<sup>47</sup>, indigenous values<sup>48</sup> and trade values).<sup>49</sup>
- Exploring the relationship between native forest and plantation forest.<sup>50</sup>
- Increased development assistance<sup>51</sup> and funding for developing countries to assist in implementing forest projects.<sup>52</sup>
- The development of global<sup>53</sup> and national<sup>54</sup> regulatory frameworks to support and encourage the implementation of the *Forest Principles*.

The *Forest Principles* do not contain any enforcement mechanisms. Forest negotiations at the UNCED were tense; the creation of a enforcement mechanism would have prevented the creation of a forest instrument. Weiss suggests that “nonbinding legal instruments set forth norms that states and other actors may observe even though they are not strictly required to do so. They create expectations that may shape behaviour and avoid disputes”.<sup>55</sup> These types of instrument give states a high degree of flexibility and do not require strict compliance. The *Forest Principles 1992* do not compel states to report on forest conditions, nor to achieve a specific target (for example reducing logging of native forest); they merely require states to bear the principles in mind when drafting domestic forest policy. This, therefore, imposes no major burden on states and makes compliance with the *Forest Principles 1992* seemingly ‘low maintenance’. Perhaps it was thought that setting minimal obligations on states was more of a realistic target as there was some potential for compliance – as opposed to setting highly ambitious goals that could not be attained. The limited obligations are also attributable to a number of states’ concerns around interference with state sovereignty rights.

### ***B. International Panel on Forestry / International Forum on Forestry proposals for action***

The United Nations Forum on Forestry was created to implement the IPF/IFF proposals for action. In total, there are 270 proposals for action designed to achieve sustainable forest management. Australia has prepared a report which summaries the IPF/IFF proposals for

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<sup>45</sup> Ibid, Principle 4.

<sup>46</sup> Ibid, Principle 8 (f).

<sup>47</sup> Ibid, Principle 9 (b).

<sup>48</sup> Ibid, Principle 12 (d).

<sup>49</sup> Ibid, Principles 13 (a) and 14.

<sup>50</sup> Ibid, Principles 6 (b) and (d).

<sup>51</sup> Ibid, Principle 11.

<sup>52</sup> Ibid, Principle 7 (b), 9 (a) and 10.

<sup>53</sup> Ibid, Principle 3 (b)

<sup>54</sup> Ibid, Principles 3 (a), 5 (a), 6 (b), 8 (f) (h) and 9 (c).

<sup>55</sup> Edith Weiss, ‘Understanding compliance with international environmental agreements: The bakers dozen myth’ (1998-1999) 32 *University of Richmond Law Review* 1555, 1567.

action.<sup>56</sup> The mandate of the IPF was to pursue consensus and formulate options for further actions to combat deforestation and forest degradation, as well as to promote the management, conservation and sustainable development of all types of forests.<sup>57</sup> The IPF proposals for action were drafted by the IPF secretariat, ITFF<sup>58</sup> member organisations, NGO groups and at inter-session initiatives.<sup>59</sup>

The mandate of the IFF was to facilitate implementation of the IPF proposals for action and to further the policy dialogue on a number of issues that were left pending from the IPF process.<sup>60</sup> The IFF working agenda was divided into three categories: the first was concerned with the implementation and review of the IPF proposals for action; the second investigated matters left pending from the IPF (such as the relationship between trade and environment); and the third addressed governance related issues (such as international institutions and organisations).<sup>61</sup> At the end of the IPF/IFF lifespan, the IPF had created 150 proposals for action, and the IFF had created an additional 120.

The summary report prepared by Australia groups the proposals for action into thematic areas. The thematic breakdown involves four major areas, with sub-breakdowns within each major area.<sup>62</sup>

1. Implementation of international forest related decisions within countries:
  - National forest programs
  - Implementation of IPF and IFF proposals for action
  - Forest information and awareness
  - Underlying causes of deforestation and forest degradation
  - Future supply and demand of forest products
  - Protected areas and forest conservation
  - Forests in environmentally critical areas
  - Impact of airborne pollution on forests
  - Forest research and development
  - Traditional forest related knowledge
  - Requirements for countries with low forest cover.
2. International cooperation in financial assistances and technology transfer:
  - Provision of financial resources to developing countries and countries with economies in transition
  - Technology transfer and capacity building.

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<sup>56</sup> Australian Department of Agriculture, Fisheries and Forestry, *Summary of Proposals for Action: A tool to assist countries to measure progress and establish priorities for sustainable forest management*, (2000).

<sup>57</sup> Ibid 8.

<sup>58</sup> Interagency Task Force on Forests (ITFF) comprised eight international organisations and was responsible for creating the IPF work agenda.

<sup>59</sup> Humphreys, above n1, 29.

<sup>60</sup> Above n56, 9.

<sup>61</sup> Humphreys, above n1, 66.

<sup>62</sup> Above n56.

3. Trade and environment in relation to forest products and services:
  - Market access and transparency.
4. Forest-related work of international organisations and multilateral institutions and instruments:
  - Involvement of countries in international programs
  - Work of international organisations.

The political climate of forest negotiations during the creation of the IPF/IFF proposals for action meant that any new forest instrument created would be a non-binding in nature and a voluntary instrument. The IPF/IFF proposals for action were designed to provide policy guidance for the development of international forest instruments.<sup>63</sup> As the name of IPF/IFF ‘proposals for action’ suggests, they are meant to stimulate action in the implementation of forest initiatives. Therefore, these proposals are not in themselves enforceable. Any reporting requirements suggested by the proposals were voluntary in nature<sup>64</sup>. Compliance with the IPF/IFF proposals has been, unsurprisingly, weak.

The most significant outcome from the proposals for action has been the concept of ‘National Forest Programmes’. This concept has been widely embraced by the international forest community and the take-up and implementation of national forest policies at the domestic level has been significant.<sup>65</sup> Some 138 countries have national forest policies at the planning or implementation phase.<sup>66</sup> Overall, the IPF/IFF proposals for action are recognised for laying out a comprehensive list of forest issues and suggestions for addressing these issues. The IPF/IFF proposals for action are, however, criticised for being insufficiently focused and repetitive. It has also been suggested that the proposals for action implementation has been hampered due their convoluted and complex nature.<sup>67</sup>

### **C. Forest Principles 2007**

*The Non-Legally Binding Instrument on All Types of Forests* is the official name of the *Forest Principles 2007*. Due to the ongoing political issues present in forest negotiations, they add little to existing international policy on global forest use and management. The first principle provides, “the instrument is voluntary and non-legally binding”.<sup>68</sup> Statements such as this are

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<sup>63</sup> Humphreys, above n1, 29.

<sup>64</sup> Ibid, 69.

<sup>65</sup> See section 4.4 which provides discusses the Australian National Forest Policy.

<sup>66</sup> United Nations Forum on Forestry, *Ad hoc expert group on Consideration with a View to Recommending the Parameters of a Mandate for Developing a Legal Framework on All Types of Forests*, United Nations Forum on Forestry, 2004, 7.

<sup>67</sup> Ibid, 6.

<sup>68</sup> United Nations Forum on Forestry, *Non-legally binding instrument on all types of forests* E/CN.18/ 2007/8, principle 2(a)

normally followed by a qualifying statement, which encourages state implementation and political support for the principles. The lack of a qualifying statement could be interpreted as effectively lessening the authority of the *Forest Principles 2007*.

The purpose of the instrument is stated to be threefold:<sup>69</sup>

- To strengthen political commitment and action at all levels to implement effectively sustainable management of all types of forests and to achieve the shared global objective on forests.
- To enhance the contribution of forests in achieving internationally agreed development goals, including the Millennium Development Goals – in particular, with respect to poverty eradication and environmental sustainability.
- To provide a framework for national action and international cooperation.

Three main themes can be identified in the *Forest Principles 2007*.<sup>70</sup> These are: the recognition of the multiple benefits that forests provide; the forest/poverty nexus; and the concept of sustainable forest management. The call for recognition of multiple forest benefits is continuous throughout the instrument.<sup>71</sup> This theme draws attention to the fact that forest policy is no longer isolated from broader development and economic policy. Forests are increasingly recognised as part of the solution to a number of problems: climate change mitigation policy; poverty reduction policy; and the health of other ecosystems (such as biodiversity, water, and soil health).

Principle 6(j) discusses the importance of recognising all forest values and extending this recognition to the marketplace. Understanding forest values and assigning a market value to all forest services will continue to feature heavily in future forest negotiations at the international level, both public and private. The *Forest Principles 2007* do not provide any guidance on how this valuation is to occur; presumably, these methods of valuation will be similar to the credit schemes established under the climate change and biological diversity conventions. Forests are set to play an ever-increasing role in the offsetting of emissions. In the future, the international forest regime and the international climate change regime will need to align their priorities and agree upon a valuation method for forest areas.

The second theme is the recognition that forestry and poverty issues are interconnected. This is aligned with current research and policy by other international bodies such as the World

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<sup>69</sup> Ibid principle 1(a), (b) and (c)

<sup>70</sup> There are other themes such as promoting and use of science and technology, stakeholder engagement, engagement with public/private sector, but the three themes identified above are the three developments taking precedence in forest policy dialogues presently.

<sup>71</sup> Above n68, principle 1 (b), 4, 5 (2), 6 (d), 6(j), 6 (t), 6 (w),

Bank, the Food and Agricultural Organisation, and the United Nations Development Program.<sup>72</sup> Addressing forest issues in connection with livelihood issues provides a pragmatic pathway for change. Often, the factors leading to forest degradation and poverty will overlap and, to make significant headway on either issue, will need to be addressed collectively.

The *Forest Principles 1992* allude to the concept of ‘sustainable forest management’, but do not directly identify the concept.<sup>73</sup> Following the creation of the *Forest Principles 1992*, a number of international forest processes, as well as academic<sup>74</sup> and policy positions, embraced the concept of sustainable forest management as the overarching goal for forest use and management. The first statement of the *Forest Principles* provides “... that sustainable forest management contributes significantly to sustainable development and poverty reduction”. Earlier drafts of the *Forest Principles 2007* contained a definition of sustainable forest management. These provided the criteria and indicator definition of sustainable forest management. According to this definition, sustainable forest management means:

The stewardship and use of forests and forest land 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.<sup>75</sup>

As discussed in Part One, many different international institutions have now accepted this as being the definition of sustainable forest management. The *Forest Principles 2007* have failed to specify a meaning of sustainable forest management instead providing that “sustainable forest management is a dynamic and evolving concept, aims to maintain and enhance the economic, social and environmental values of all types of forests, for the benefit of present and future generations”.<sup>76</sup>

This flexible definition can be interpreted in two ways. First, that the *Forest Principles* statement is essentially the same as the criteria and indicator definition of sustainable forest management, but has been left purposely flexible so as to include relevant new developments. Or, alternatively, the lack of an agreed definition for sustainable forest management suggests that forest negotiations at the United Nations level produce limited positive outcomes. Failing to specify the meaning of ‘sustainable forest management’ could be interpreted as undermining the authority of the *Forest Principles 2007*.

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<sup>72</sup> See Chapter Seven for a discussion on the World Bank Forest Policy, which has a strong focus on the poverty/forest link.

<sup>73</sup> See Part One for further analysis on this point.

<sup>74</sup> Shashi Kant, ‘Economics of sustainable forest management’ (2004), 6, *Forest Policy and Economics*, 197.

<sup>75</sup> Ad hoc group to consider the content of the non-legally binding instrument, *Composite draft text for a non-legally binding instrument on all types of forests* (2006).

<sup>76</sup> Above n68, principle 4



Earlier drafts of the *Forest Principles 2007* also contained the seven thematic elements of sustainable forest management adopted from the criteria and indicator processes. In the final instrument, these seven thematic elements have been incorporated as a footnote to *Principle 6(b)*. The failure to include widely accepted criteria and indicators that detail the requirements for sustainable forest management, again demonstrates the political tensions in forest negotiations at the United Nations level.

Reporting requirements are discussed in *Principle 9*. The wording of this principle is weak, and highlights the voluntary nature of the principles:

Member States should submit, on a voluntary basis, taking into account availability of resources and the requirements and conditions for the preparation of reports for other bodies or instruments, national progress reports as part of their regular reporting to the United Nations Forum on Forestry<sup>77</sup>

This principle gives other international reporting requirements precedent over its own. It does not elaborate on what information would be required if a voluntary report was made, nor suggest any recommended periods for making these voluntary reports. This lack of clarity could result in states submitting a report to the United Nations Forum on Forestry that has already been submitted to a different international institution whose priorities are unaligned with that of the Forum's. The Forum's governing bodies are then placed in the position of trying to use this varying information reported by each country. In 2011 and 2015, the Forum's secretariat is tasked to collate the voluntary reports submitted by states for inclusion at the Forum sessions.<sup>78</sup> In any event, it is not clear what data the forum are seeking to collect, or the purposes for which these data are being collected.

The seventh session report<sup>79</sup> makes reference to *Resolution 2006/49*<sup>80</sup> with respect to reporting requirements. *Resolution 2006/49* at *Article 19* provides that "countries should, on a voluntary basis, submit national reports to the Forum, in accordance with a timetable established by the Forum". No timetable has been circulated that details the timeframe and content requirements for the reports. It can be assumed that the content of reports should be loosely based around the seven thematic elements of sustainable forest management.<sup>81</sup>

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<sup>77</sup> Ibid, principle 9.

<sup>78</sup> Economic and Social Council of the United Nations, *United Nations Forum on Forestry: Report of the seventh session (24 February 2006 and 16-27 April 2007)*,16.

<sup>79</sup> Ibid.

<sup>80</sup> Ibid

<sup>81</sup> Ibid, 16.

*Section 6(j)* should, at a minimum, make reference to the Collaborative Partnership on Forests report on international forestry reporting requirements as a guide for submission.<sup>82</sup>

The most positive outcome from the *Forest Principles 2007* is the four global objectives on forests contained in *Principle 5*:

1. Reverse the loss of forest cover worldwide through sustainable forest management, 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 from sustainably managed forests.
4. Reverse the decline in official development assistance for sustainable forest management and mobilise significantly increased new and additional financial resources from all sources for the implementation of sustainable forest management.

If these objectives are considered to be common global aims, future negotiations at the United Nations Forum on Forestry should explore the implementation of these four goals. Implementation of the first principle could use already existing mechanisms within the criteria and indicator process to achieve sustainable forest management. Further implementation of the first global objective could be assisted through the implementation of Kyoto Protocol afforestation and reforestation guidelines.

Implementation of the second and fourth objective requires development assistance and technology transfer to help developing countries. The issue of development assistance and technology transfer has proved controversial in all forest negotiations. A solution needs to be found that meets the requirements of both developed and developing countries' positions on this point. The Collaborative Partnerships on Forests handbook on global funding for forest projects should be used in this process. The Environment Director of the World Bank commented at the Forum's seventh session that the four global objectives of the Forum were similar to the Bank's forests strategy. It was emphasised by the World Bank that traditional official development assistance (ODA) was not adequate to address the economic cost associated with the implementation of the four goals. Furthermore, alternative and new forms of financial support would need to be identified to compensate for the decrease in traditional

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<sup>82</sup> Collaborative Partnership on Forestry, *Streamlining Reporting* (2006).

ODA finance.<sup>83</sup> It should be noted that due to a significant contribution by Japan, the traditional forest ODA finance actually increased from 2000 to 2007.<sup>84</sup>

The Global Environment Facility (GEF) assists developing countries to protect the global environment. This facility is a provider of traditional ODA finance. The GEF does not have an individual forest program, but funds forest projects through biodiversity, climate change and land degradation programs. Within the land degradation program, a project theme of sustainable land management has been created that is broad enough to encompass projects related to sustainable forest management.

To achieve the third global objective, that is to increase the area of protected forests worldwide; voluntary targets should be set prescribing individual targets for states to work towards. To ensure that more timber is sourced from sustainably managed areas, the Forum should publicly support and endorse genuine sustainable forest management certification programs, such as the Forest Stewardship Council certification process. Recognising certification, a valuable tool at the United Nations level, has the potential to influence the intended target of certification programs: the consumer. It was decided in December 2006 that 2011 would be the *International Year of Forests*. It can only be hoped that the *International Year of Forests* will raise the political platform of forests and increase global action aimed at achieving sustainable forest management.<sup>85</sup>

At UNFF 7, a timetable of work was created entitled *Multi-year Programme of Work for 2007–2015*.<sup>86</sup> The timeline begins in 2009 when UNFF 8 is scheduled to take place in New York.<sup>87</sup> This creates a vacuum for international progress towards sustainable forest management from the close of UNFF 7 April 2007 until the start of UNFF 8 April 2009. This means that implementation of the *Forest Principles 2007* will not commence until 2009. The UNFF negotiations are to take place every second year according to the timeline: UNFF 8 in 2009; UNFF 9 in 2011 (International year of Forest); UNFF 10 in 2013; and UNFF 11 in 2015. The main task between 2009 and 2015 is to achieve the four global objectives on forests and implementing the *Forest Principles 2007*. Each Forum session has been allocated a theme:

- UNFF 8 (2009) – Forests in a changing environment (climate change and forest loss) and means for implementation for sustainable forest management.

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<sup>83</sup> Above n78, 36.

<sup>84</sup> Markku Smula, *Financing Flows and Needs to Implement the Non-Legally Binding Instrument on All Types of Forests*, Advisory Group on Finance of the Collaborative Partnership on Forests and Program on Forests of the World Bank, 2008, 30.

<sup>85</sup> General Assembly United Nations, *Declaration of 2011 as International year of forests*.

<sup>86</sup> United Nations Forum on Forestry, *UN Forum on Forests – Multiyear Programme of Work 2007-2015* (2007), 18-19.

<sup>87</sup> Above n78, 10.

- UNFF 9 (2011) – Forests for people, livelihoods and poverty eradication.
- UNFF 10 (2013) – Forests and economic development.
- UNFF 11 (2015) – Forests: progress challenges and way forward for the international arrangement on forests.

#### **4. Arguments For and Against a Forest Convention**

Since the Rio meeting in 1992, there has been ongoing dialogue within international negotiations, and within academic literature, about the lack of binding instruments in the international forestry arena. Many critics of the current international arrangement on forests argue that a lack of a binding legal instrument is responsible for a lack of development and implementation of international forest standards and rules. Other proponents suggest that a binding legal instrument will not necessarily increase enforceability or implementation of forest standards and norms and use other binding international legal instruments, such as the Convention on Biological Diversity and the Framework Convention on Climate Change, to support this argument.

##### ***A. Support for a legally binding international forest instrument***

The main arguments supporting the creation of legally binding international instruments concerning forests (forest convention) include:

- Existing global governance has been largely ineffectual and extremely limited in scope.<sup>88</sup>
- Current regulation provides an ad-hoc and fragmented approach to regulation. A forest convention could address overlap/inconsistency if all under one approach.<sup>89</sup>
- The need for a forest convention that could strengthen existing multilateral environmental agreements (such as the Convention on Biological Diversity and the Framework Convention on Climate Change).<sup>90</sup>
- The lack of a binding instrument has increased the fragmentation of forest governance with resultant duplications and inefficiencies.<sup>91</sup>
- A need to harmonise the multiple and potentially conflicting international instruments impacting on forests.<sup>92</sup>

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<sup>88</sup> D Vanderzagg and D Mackinlay, *Towards a Global Forest Convention: Getting out of the woods and barking up the right tree* in S Johnson (ed) *Global Forests and International Environmental Law*, (1996), 1-4.

<sup>89</sup> Humphreys, above n1, 42.

<sup>90</sup> *Ibid.*

<sup>91</sup> Vanderzagg and Mackinlay above n88 at 1-4.

<sup>92</sup> *Ibid.*

- The absence of harmonisation means that states are in weak place to impose domestic standards that would achieve sustainable forest management.<sup>93</sup>
- The need for a global forest convention that could play a valuable role in facilitating international trade in forest products to the benefit of both developing and developed countries.<sup>94</sup>
- The need for a forest convention that would demonstrate a high level political support and commitment to solving forest related concerns and issues at the international level.<sup>95</sup>
- That a forest convention, if negotiated accordingly, could increase funding for forest projects in developing countries.<sup>96</sup>
- That individual state governments may be interested in obtaining a forest convention, which would necessarily increase the profile of the domestic forest government departments. A forest convention could be used state governments to demonstrate progress in forest issues.<sup>97</sup>

### ***B. Arguments against a legally binding international forest instrument***

At the international level, major players in international forestry including the USA, Brazil (which is, coincidentally, the state with the largest amount of native forest in the world), and Russia are strongly against the creation of legally enforceable duties in relation to forests. The ‘super bodies’, along with many smaller states, consistently argue against a legally binding instrument, and use the concept of state sovereignty over natural resources to support their position. Commentators in the area have suggested the following arguments against the creation of binding commitments concerning forestry:

- The creation of a forest convention could lead to political complications and turf wars with other legally binding instruments – for example, the Convention on Biological Diversity and the Framework Convention on Climate Change.<sup>98</sup>
- The creation of a forest convention has the potential to undermine other legal instruments and add further uncertainty in international forest regulation. This uncertainty would result in an increase in regulation, not in action.<sup>99</sup>

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<sup>93</sup> Ronnie Lipschutz, ‘Why is there no international forestry law? An examination of international forestry regulation, both public and private’ (2001) 19 (1) *University of California Journal of Environmental Law and Policy*, 153, 159.

<sup>94</sup> Vanderzwagg and Mackinlay above n88 1-4

<sup>95</sup> Humphreys, above n1, 42.

<sup>96</sup> Saunders (Development Assistance Issues related to convention in *Global Forests Book* at 305 ← This looks incomplete

<sup>97</sup> Humphreys, above n1, 42.

<sup>98</sup> Ibid.

<sup>99</sup> Ibid.

- The harmonisation of forestry practices creates a form of cultural imperialism, negatively affecting cultural and social benefits connected with forests.<sup>100</sup>
- A forest convention would impact upon a state sovereignty, and limit a state's sovereign use of its natural resources.<sup>101</sup>
- A legally binding instrument does not necessarily increase compliance with the legal obligations and duties created within the instrument.<sup>102</sup>
- Certain states are only interested in creating a forest convention to create legal rules on tariffs and trade barriers against timber exports.<sup>103</sup>
- The negotiations to create a convention would be lengthy and could consume significant financial and technical resources, thereby slowing much-needed action on the ground. Even if a new instrument were to be adopted, it may not enter into force quickly, while effective implementation would take even longer.<sup>104</sup>
- The division within the international community may lead to a weak set of norms (reflecting the lowest common denominator). This risk is particularly significant given the current lack of substantive global consensus on key issues.<sup>105</sup>

### **C. Forest Convention Drafts**

Two forest convention drafts have been created during this international/academic debate over the requirement for a legally binding instrument. The Food and Agriculture Organization of the United Nations (FAO) created the first blueprint for a legally binding instrument concerning forests.<sup>106</sup> This draft was compiled around 1990 and was based on three basic principles:<sup>107</sup> the guarantee of state sovereignty; the operation of the stewardship ethic; and the acceptance of the concept of burden-sharing. The operation of these three principles allowed tropical forest countries to act as global stewards of forests representing the international community – which, in turn, agreed to share the burden of conservation (the burden here, being the loss of economic development through logging of forest areas).<sup>108</sup> This thoughtful design was not adopted and, as such, this document is of no legal significance.

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<sup>100</sup> Lipschutz above n 93, 159.

<sup>101</sup> Ibid.

<sup>102</sup> For example compliance levels with Convention on Biological Diversity and Framework Convention on Climate Change.

<sup>103</sup> The United States of America argues that Canada only supports the notion of a forest convention so as to secure itself larger access to timber markets. For more information, see Humphreys, above n1, 42.

<sup>104</sup> Richard Tarasofsky, *Assessing the International Forest Regime*, ICUN – The World Conservation Union (1999), 4.

<sup>105</sup> Ibid.

<sup>106</sup> David Humphreys, *Forest Politics: The Evolution of International Cooperation* (1996), 87.

<sup>107</sup> See the following report that discusses approaches undertaken by FAO. TJ Peck and EG Richards, *Fifty Years of International Co-operation in Forestry* (2005) FAO, ECE, ILO, viewed 11 February 2010 at <http://www.unece.org/timber/docs/publications-other/JCHistory.pdf>

<sup>108</sup> Humphreys, above n1, 87.

However, the three-prong approach advocated by the document does appear logical and does address forest concerns, evident as at the time of writing.

Another blueprint for a forest convention emerged from GLOBE (the Global Legislators Organization for a Balanced Environment).<sup>109</sup> The suggested institutional operations proposed by this group were insightful. GLOBE suggested that the convention could be operationalised with:

- conferences of the parties to the Convention;
- an authority created that was tasked with preparing international standards and guidelines;
- the creation of an international compliance and monitoring body;
- the creation of a international forest information network; and
- The creation of a forest products council with a mandate to facilitate development of international trade standards for forest products.<sup>110</sup>

The United Nations Forum on Forestry should adopt the institutional reforms suggested by the GLOBE forest convention draft and adopt this design to implement the *Forest Principles of 2007*. However, to fully incorporate the suggestions made by the GLOBE model, further integration of forest bodies would be needed to carry out certain activities (for example, monitoring compliance with international obligations). If a forest convention is ever agreed upon and created, the institutional operations proposed by the GLOBE draft should be considered.

The forest convention debate moves international forest dialogue in an unsuitable direction. Instead of discussing the issues that undermine the current system of regulation (state sovereignty, financial and development assistance, technology transfer), participants are distracted by strong arguments for and against a convention. The author is of the opinion that a suitably negotiated forest convention would be of great benefit for the world's forests. However, the current climate of forest dialogue and negotiations is not going to support this seemingly radical ideal for a forest convention. Before a forest convention is created, the underlying issues identified above must be recognised and attempts made to solve the issues they present.

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<sup>109</sup> A copy of the GLOBE Forest Convention is no longer available online. GLOBE is still in operation and its objective is to support ambitious and political leadership on issues of climate and energy security, land-use change and ecosystems and economic and population growth. See <http://www.globeinternational.org/> at 11 February 2010.

<sup>110</sup> Vanderzwagg and Mackinlay above n88, 32.

## 5. Implementation of United Nations Forum on Forestry Programmes

### A. Implementation to date

It is generally accepted that there has been weak implementation and compliance with the major forest instruments created by the United Nations Forum on Forestry and its predecessor bodies.<sup>111</sup> Generally, the lack of compliance and implementation is attributed to the politics surrounding the international forestry negotiations (including issues connected to state sovereignty), the lack of authority conferred upon the Forum, the lack of finance to implement the objectives of the Forum, and the lack of binding mandates created by the Forum.<sup>112</sup>

The United Nations Forum on Forestry and predecessor bodies created the following legal instruments:

- Non-legally binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests 1992 (*Forest Principles 1992*).
- Intergovernmental Panel on Forests/ Intergovernmental Forum on Forests Proposals for action (1995–2000).
- Non-legally binding Instrument on all Types of Forests 2007 (*Forest Principles 2007*).

There is a common understanding within international forestry networks, domestic policy counterparts, and academic circles, that the *Forest Principles 1992* were largely ignored by domestic regimes. For international law to be effective, there must be domestic implementation of the international commitments. The subsequent proposals for action created between 1995 and 2000 were an attempt to address the lack of domestic implementation of the *Forest Principles 1992*. The proposals for action created the concept of ‘National Forest Policies’. These policies are considered to be the most successful hallmark of the international forest regime; they define forest policy and examine implementation and resources requirements.

The United Nations Forum on Forestry was formed to implement the proposals for action generated by the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests. At the outset, it was decided that the progress of the Forum would be reviewed after five years.<sup>113</sup> In 2005, a report was prepared reviewing the effectiveness of the international

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<sup>111</sup> Humphreys, above n1, 91.

<sup>112</sup> Ibid, 106.

<sup>113</sup> ECOSOC RESOLUTION 2000/35



arrangement on forests<sup>114</sup> using information from voluntarily submitted reports from countries and other organisations on the implementation of the proposals for action, and from voluntarily submitted questionnaires. Thus, countries that did not respond were not included in the reports findings.

The report was broken into three main sections: thematic areas of proposals for action; effectiveness of international arrangement on forests; and conclusions. The first section of the study identified 16 thematic areas covered by the proposals for action. These thematic areas are listed below, with a brief synopsis of the findings:<sup>115</sup>

- *National Forest Policies* – The overall finding was that National Forest Policies are useful tools for devising domestic forestry regulation. In general, it was found that stakeholder consultation needs to be improved, and that forest priorities need to be integrated with broader development priorities.<sup>116</sup>
- *Public Participation* – Certain countries were identified as having advanced frameworks for public participation in forest policy and planning (Switzerland, Norway and Finland). In general, it was found public participation opportunities often exist for areas of forest land that are under public ownership, but frequently the public is given no right to participate in negotiations concerning the use of private forest land.
- *Deforestation and forest degradation* – The overall global trend shows a decrease in forest cover. All countries that responded (except for Europe) reported a decrease in forest cover. A number of countries identified the underlying cause of deforestation.<sup>117</sup>
- *Traditional forest related knowledge* – It was identified that Australia, Canada, India, New Zealand, Peru, the Philippines and the South Pacific region have traditional forest knowledge registries or databases. Overall, it is recognised that beneficial traditional knowledge is still being amassed.
- *Forests and related scientific knowledge* – It was found that science has made a significant contribution to forest management and forest ecosystem health. The traditional avenues of knowledge dissemination were identified as: meetings, training sessions, and publication of findings in various sources. New avenues of

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<sup>114</sup> Department of Economic Secretariat of the United Nations Forum on Forestry, *Review of the Effectiveness of the International Arrangement on Forests* CN.18/2005/6 (2005).

<sup>115</sup> Ibid.

<sup>116</sup> It was noted that, in Sweden, quantifiable targets were set in the National Forest Policy; this, therefore, creates legally binding forest commitments in Sweden.

<sup>117</sup> For example: Cambodia identified illegal logging; El Salvador identified high population in small geographical area; Sudan identified agricultural expansion; the USA identified a shift in population from rural to metropolitan areas; and Korea stated that deforestation was unavoidable, as 64% of the country is covered by forests, and essential infrastructure and development necessitates a degree of deforestation.

dissemination were: electronic-based, websites, interactive online forums, and mailing lists.

- *Forest health and productivity* – Air pollution was identified as a major threat to forest health now and in the future. Storms, fires and climate change were also identified as threats to forest health and productivity.
- *Criteria and Indicators* – The value of criteria and indicators as tools for assessing progress towards sustainable forest management was acknowledged. It has been suggested that national forest policies could be better aligned with existing criteria and indicator frameworks.
- *Economic, social and cultural values of forests* – It was found that, in general, there is lack of data about the economic value of all forest services. It is recognised that timber prices do not accurately reflect the true value of forests, and that policy reform is needed to address this.<sup>118</sup>
- *Conservation* – It was found that many countries have significant tracks of forest areas under some form of legal protection. In developing countries, improving capacity and revenue for forest conservation should be addressed as a priority.
- *Monitoring, assessment, reporting, concepts, terms, and definitions* – It was found that many countries have well-established forestry inventory systems; again, developing countries require assistance and capacity building to support them in implementing forest monitoring systems.
- *Rehabilitation in low forest cover* – A number of afforestation initiatives were identified by the report.
- *Rehabilitation in degraded lands* – It was found that the establishment of plantations and agroforestry practices using native species was a common approach when attempting to rehabilitate degraded land.
- *Future forest interests* – Some responses showed consideration of future forest trends, including long-term predications concerning timber supply and demand, and adaptation of the forest economy. It was also stated that national forest polices should make reference to future forest interests.
- *Financial resources* – Financing sustainable forest management and payment for non-market outputs of forests remain critical factors for achieving successful implementation of the proposals.
- *International trade and sustainable forest management* – It was found that processes outside of the forum (such as the FLEG<sup>119</sup> and forest certification

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<sup>118</sup> Some examples of policies that are attempting to address the current undervalue include increasing rent on public forest land, tightening on the collection of revenues, and taking account of environmental consideration in both the setting of payments and the application of contractual conditions to concessions.

<sup>119</sup> FLEGT stands for Forest Law Enforcement Governance and Trade Scheme.

processes) have made more progress on creating standards for international trade in timber products.

- *International cooperation capacity building and technology transfer* – Numerous examples of bi-lateral and multilateral partnerships were reported. The role of NGOs in assisting with capacity-building and technology transfer was recognised.

The second section of the report collated responses on the overall effectiveness of the international arrangement on forests. A number of the responses elicited responses that support the views of the author expressed in this chapter. Switzerland suggested that resolutions negotiated during Forum sessions have had limited impact on the implementation of proposals for action and, furthermore, that Forum sessions did not prompt action for implementation.<sup>120</sup> The European Union suggested that formal forest policy development at the global level has been hindered by a lack of participation and a policy implementation instrument.<sup>121</sup> Norway suggested that the proposals for action have enhanced policy development and dialogue at the international level and contributed to European collaboration on forest policy. Norway noted the effects of the proposals for action on policy development and dialogue at the domestic level is less obvious.<sup>122</sup>

The third part of the report contains overall conclusions based on the submissions received. Generally, it was considered that the advances were made in national forest policy formulation, extending stakeholder engagement and the development of criteria and indicators. Though it should be noted that stakeholder engagement no longer takes place at the Forum's main sessions, and there is no clear process or purpose for stakeholder engagement (as discussed earlier in this chapter). So, arguably in the context of stakeholder engagement at the international level, no real advances have been made. As to the development of criteria and indicators, the creation of these tools actually emerged from multi-lateral inter-governmental negotiations that were hosted separate from the Forum negotiations. As such, the forum cannot claim credit for the development of this sustainable forest management tool.

Part Three of the report identifies that the international arrangement on forests has failed to deliver in the following areas: addressing deforestation and illegal forestry practices; assisting in the development of domestic institutional forestry frameworks; creating sectoral links with other national policy processes; and creating a mechanism to value forests non-market

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<sup>120</sup> Above n144, 66.

<sup>121</sup> Ibid, 73.

<sup>122</sup> Ibid, 74.

values.<sup>123</sup> The report also revealed that many of responses noted the lack of a legally binding instrument concerning the use of the world's forests.

The *Forest Principles 2007* are due to be implemented from 2009 to 2015 (as stated in the *Multi-year Programme of Work*).<sup>124</sup> According to the *Multi-Year Programme of Work*, the Forum will meet every second year and a theme has been assigned to each session. In 2009, at the Forum's eighth meeting, implementation of sustainable forest management will be discussed. In preparation for this session, a number of reports have been prepared concerning mobilising finance for sustainable forest management.<sup>125</sup> These reports will be discussed in more detail below. Additionally at the eighth session, negotiations will examine forests and climate change. At the ninth session, discussions will focus on forests for people, livelihoods, and poverty eradication. At the tenth session, forests and economic development will be discussed – and the eleventh session will negotiate progress, challenges, and the way forward for the international arrangement on forests.

While the programme of work provides some direction and structure for future Forum sessions, the effectiveness of the program will depend upon the creation of agreed objectives arising from session negotiations, and on activities that take place in between sessions to implement these objectives. If no clear activities or goals are set for action in between each session meeting, there is high risk that the Forum's sessions will continue to operate purely as talkfests. Small, identifiable targets must be set at the Forum around the relevant assigned theme.

### ***B. Improving implementation***

To address the lack of implementation of the international forest regimes instruments, three barriers must be overcome. Firstly, financial support must be provided to developing countries to allow implementation of sustainable forest management principles and practices. This need for increased international financial forest revenue has been recognised by the forum- with reports being prepared to provide suggestions about how to increase revenue for forest management. Secondly, the capacity of developing countries to implement and enforce sustainable forest management principles and practices must be addressed. For forest programs to be successful, there must be an underlying political structure that is secure, transparent and accountable. In the absence of such a system, implementation of sustainable

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<sup>123</sup> Ibid97.

<sup>124</sup> Ref to electronic source UNFF site

<sup>125</sup> Markku Smula, *Financing Flows and Needs to Implement the Non-Legally Binding Instrument on All Types of Forests*, Advisory Group on Finance of the Collaborative Partnership on Forests and Program on Forests of the World Bank, 2008, and Hosny El Lakany, Michael Jenkins and Michael Richards, *Background Paper on Means of Implementation (Contribution by PROFOR to discussions at UNFF-7)*, 2007.

forest management will continue to be weak. Thirdly, there needs to be policy integration of forest issues into broader sustainable development and development strategies.

Recently, there has been more focused attention on methods to increase financial revenue for implementation of the *Forest Principles 2007*.<sup>126</sup> These two international reports both suggest that, to increase revenue and investment for sustainable forest management, two prerequisite conditions must be addressed: land tenure and governance concerns.<sup>127</sup> Firstly, secure land tenure and forest-use rights must be established. Secure land and property rights increase private investor confidence and provide a degree of security for the investment (being the value of the land). Official development assistance forest programs also value secure land tenure rights, because this provides assurance that the progress/work carried out as a result of the funding will continue in operation, even once the project wraps up. It is noted that many externally funded projects aimed at improving land tenure often underestimate the time that land tenure reform processes take.<sup>128</sup>

Secondly, improving institutional capacity and weak forest governance frameworks should be a priority for sustainable forest management funding. Without adequate governance models in operation, the provision of funding to implement forestry-related works will be undermined as the integrity of the project cannot be assured. Governance can be defined as the structures, functions, processes and organisational traditions that have been put in place within the context of a program's authorising environment to ensure that the program is run in such a way that it achieves its objectives in an effective and transparent manner.<sup>129</sup> Weak forest governance acts as a barrier for public and private forest investment. In particular, in the forest context, there is a pressing need to improve monitoring capacity and enforcement mechanisms to prevent illegal forest activities. Furthermore, institutional capacity needs to be improved to ensure that forest areas are not further encroached due to agricultural expansion and land development.

The reports on sustainable forest management finance discuss both existing and emerging forest revenue streams. In terms of existing forest revenue, El Lakney distinguishes between public and private finance.<sup>130</sup> Public forest revenue comes from domestic government budgets and official development assistance initiatives. Domestic funding can come in the form of direct investment and intervention, market interventions, or governance law and enforcement. Private forest investment comes from investment activities, portfolio

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<sup>126</sup> Ibid.

<sup>127</sup> Simula, above n 125, 72.

<sup>128</sup> Ibid.

<sup>129</sup> Smula, above n125, 69.

<sup>130</sup> El Lakney, above n125, 8.

investments, loans, and philanthropic funds. El Lakney identifies the following emerging forest financial mechanisms: payment for ecosystem services schemes; carbon markets; community/company partnerships; and conservation funding provided by NGOs. It is also suggested that the private sector engagement can be engaged through the use of eco-security<sup>131</sup>, forest insurance,<sup>132</sup> the 'equator principle', and due diligence<sup>133</sup>.

Simula contends that examining sustainable forest management as a financing objective involves recognition of the dual nature of sustainable forest management.<sup>134</sup> Forests provide public goods such as climate regulation and biodiversity stocks, while forests also serve private interests by generating financial capital. Traditionally, public forest services have been funded by the public sector while private sector forest services have been funded by the private sector. In the future, the cost of public forest sector investment needs to be shared between the two sectors. Payment for ecosystem services provides a model for public/private investment in forest areas.

Simula's report finds that, in general, there has been a modest increase in all forms of forest finance (see the table below). Despite the modest increase in forest finance, the gap between funding available and funding needs is still wide.<sup>135</sup> It is suggested that to increase official development assistance funding for forests, that a priority should be the inclusion of forest issues in poverty reduction policies and other development priorities policies. This way, finance mobilised to address cross-sectoral issues (such as capacity-building and poverty) can be directed into forest projects which seek to improve these goals alongside forest goals. Additionally, country aid policies could be lobbied to include forests as a priority – because often forests are only mentioned indirectly.<sup>136</sup>

#### External Financial Flows to Forests<sup>137</sup>

Source	2000-02	2005-07	% Change
<b>Public Sector</b>			
Bilateral	959.3	1,103.4	+15.0

<sup>131</sup> The aim of eco-securitisation is to enable access to international through a forest funding instrument or bond in which the returns match the biological and sustainable growth profile of natural growth forestry. For further information, El Lakney, above n125, 25.

<sup>132</sup> Commercial investment is dependent upon insurance being provided. Therefore, obtaining insurance for forest investment would be a way to motivate private sector investment. For further information see *Ibid*.

<sup>133</sup> The 'equator principles' require that all loans over \$50 million adhere to environmental and social safeguard policies of the IFC. For further information, see El Lakney, above n125, 26. .

<sup>134</sup> Simula, above n 125, 22.

<sup>135</sup> *Ibid*, 71.

<sup>136</sup> *Ibid*, 25.

<sup>137</sup> *Ibid*, 28.

Multilateral	335.0	806.7	+140.8
Total	1,294.3	1,910.1	+47.6
<b>Private Sector</b>			
Foreign investment	400.0	516.0	+29.0
Other private funding	n.a.	n.a.	Increase
NGO, philanthropic	n.a.	n.a.	Probable Increase

There are a number of emerging market mechanisms which have the potential to mobilise finance into forestry projects. These include the existing Kyoto carbon market, the future reduced emissions from deforestation and degradation financial proposal, and payment for ecosystem services markets that are emerging. All of these market mechanisms have institutional and other barriers that must be overcome to increase take-up and participation within their schemes.

Under the *Kyoto Protocol Annex 1*, parties (industrialised countries which have ratified the instrument) are able to implement forest projects in non-Annex 1 parties' countries (developing countries) and include the emission reduction rate in their accounting practices. Unfortunately, due to scientific uncertainty associated with measuring and accounting for reduced emissions from forest practices, the working modalities for forest projects under the clean development mechanism are cumbersome and lengthy. This bureaucratic process has, therefore, only ensured the creation of one forest clean development mechanism project. The clean development mechanism has been praised for its ingenuity in mobilising finance to developing countries to implement sustainable development projects. The working modalities associated with forest clean development mechanism funding would require reform to encourage further forest investment under this mechanism.<sup>138</sup>

Within the international climate regime, negotiations are currently taking place to design a market instrument to financially reward developing countries that protect/conservate large forest areas. This proposal is known as the reduced emissions from deforestation and degradation (REDD) initiative. There are two possible models that could be adopted. Firstly, a model to create certified emission reduction credits that are the currency of the emission-trading model – or, secondly, the creation of a financial model that generates finance for

<sup>138</sup> Charlotte Streck and Jolene Lin, 'Making Markets Work: a Review of CDM Performance and the Need for Reform', (2008), 19 (2), *European Journal of International Law*, 409; and Axel Michaelowa, *CDM: current status and possibilities for reform*, Hamburgisches WeltWirtschafts Institut, (2005).

forests, but which does not rely upon the generation of credits. Both models have advantages, the credit model offers investors security for their capital, but will involve a cumbersome and lengthy approval process. While the non-credit financial model will speed up the availability of finance, strategies for funding this model will need to be negotiated at the international level; this could lead to a delay in implementation.<sup>139</sup>

'Payment for Ecosystem Services' models have attracted policy, academic, and international interest. These markets create 'credits' for a number of environmental values (such as water quality, soil quality, and biodiversity). There is a real prospect that payment for ecosystem services schemes will, in the future, mobilise investment by the private sector to fund environmental benefits enjoyed by society as large. Presently, the models that exist are pilot or small schemes that need to be expanded to generate significant new investment for forest ecosystem services.<sup>140</sup>

### **C. Case study: implementation of international forest principles in Australia**

Australia implemented a *National Forest Policy Statement*<sup>141</sup> in 1992 for dual purposes. Firstly, to fulfil obligations created by the international arrangement on forests; and, secondly, as a means to appease domestic political issues arising from conflicts between the Commonwealth and state governments over the use and management of Australia's forest reserves. From the international perspective, the creation and implementation of the *National Forest Policy Statement* is a positive development; from a domestic perspective, its creation and implementation has attracted strong criticism for failing to deliver on its original mandate (being to solve conflict arising over the allocation, use and management of forests in Australia).<sup>142</sup>

The vision of the *National Forest Policy Statement* is to increase forest cover, retain the ecological integrity and biodiversity of forests, adopt a holistic management approach that values all forest services, increase awareness in the Australian community about all forest values/services, encourage sustainable forest management on private forest land, and expand the sustainable forest management industry of Australia.<sup>143</sup> To achieve this vision, 11 national

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<sup>139</sup> See generally, Rosemary Lyster, 'The new frontier of climate law: Reducing Emissions from Deforestation and Degradation', (2009), 26, *Environmental and Planning Law Journal*, 417.

<sup>140</sup> Kelsey Jack, Carolyn Kousky and Katharine Sims, 'Designing payments for ecosystem services: Lessons from previous experience with incentive-based mechanisms', (2008), *Proceedings of the Nations Academy of Sciences*, 15.

<sup>141</sup> Commonwealth Government, *National Forest Policy Statement: A new focus for Australia's forests*, (1992), Commonwealth of Australia, viewed 4 February 2009 at [http://www.daffa.gov.au/data/assets/pdf\\_file/0019/37612/nat\\_nfps.pdf](http://www.daffa.gov.au/data/assets/pdf_file/0019/37612/nat_nfps.pdf).

<sup>142</sup> MB Lane, 'Regional Forest Agreements: Resolving Resource Conflicts or Managing Resource Politics?' (1999) *Australian Geographical Studies* 142.

<sup>143</sup> Commonwealth Government, above n141, 3.



goals are identified within the instrument. These goals are based on the following themes: conservation, wood production, intergovernmental arrangements, private forest management, plantations, water supply and catchment management, tourism, employment, research and development, public awareness and international responsibilities.<sup>144</sup>

The policy does not create enforceable obligations. Instead, it was created to inform the development of consistent forestry instruments across Australia. Before the introduction of the *National Forest Policy Statement*, the Commonwealth and state governments of Australia were both deemed to have jurisdiction over forestry management. The Australian Constitution does not directly delegate authority for forestry use and management to either the Federal or state government. Rather, the Australian Constitution indirectly assigns power to regulate forest use and management to the state government through the power to regulate land-use decision-making and management.<sup>145</sup> The Commonwealth government, through a number of powers<sup>146</sup> (assigned to it under the Constitution), also indirectly had authority to regulate certain forestry activities.

Conflict arose between the two levels of government when the Commonwealth, using its export power, prohibited the exportation of wood chips below market value.<sup>147</sup> The Commonwealth government imposed a regulatory framework that required states obtain permits to export forest products from Australia. Permits for export were granted when it was established that the wood chip price exceeded the established minimum wood chip price.<sup>148</sup> The imposition of this permit requirement fuelled existing tensions between the Commonwealth and state governments over forest regulation and use. The *National Forest Policy Statement* sought to resolve the tensions arising from the permit requirement by removing the permit requirement for areas over which a regional forest agreement was created.<sup>149</sup>

One of the thematic priorities of the *National Forest Policy Statement* was an intergovernmental arrangement. The *National Forest Policy Statement* in conjunction with the *Intergovernmental Agreement on the Environment* sought to clarify the role of the Commonwealth government in forestry regulation. Under the *Intergovernmental Agreement*

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<sup>144</sup> Commonwealth Government, above n141, 4-5.

<sup>145</sup> Australian Constitution

<sup>146</sup> Trade, international power and section numbers in Constitution.

<sup>147</sup> Individual states in Australia were in competition with one another to provide the cheapest wood chips, hence devaluing the costs of forest products from Australia. See Jan McDonald, 'Regional Forest (DIS) Agreements: The RFA Process and Sustainable Forest Management' (1999) 11 *Bond Law Review* 295, 304.

<sup>148</sup> Jan McDonald, 'Regional Forest (Dis) Agreements: The RFA Process and Sustainable Forest Management' (1999) 11 *Bond Law Review*, 295, 325.

<sup>149</sup> Commonwealth Government, above n141, 17-18.

on the Environment, the Commonwealth government has agreed upon authority to deal with forest areas listed on the Register of the National Estate, when: a state government seeks assistance; when obligations arise from international law; in World Heritage Convention forest areas; a forest area spans state boundaries; there are relevant Commonwealth Acts in operation; and in other circumstances where the *Intergovernmental Agreement on the Environment* applies.

The *National Forest Policy Statement* affirms that state governments have primary responsibility for land use decision-making and management.<sup>150</sup> The policy also creates also creates a Comprehensive Regional Assessment process<sup>151</sup>. This process allows states to invite the Commonwealth to participate in carrying out an assessment over an area to meet Commonwealth and state requirements. This assessment will provide the basis for enabling the Commonwealth and states to reach a single agreement concerning their mutual obligations over the relevant forest region.<sup>152</sup> The *National Forest Policy Statement* foreshadowed that each comprehensive regional assessment process would result in the formulation of a Regional Forest Agreement.<sup>153</sup>

The Comprehensive Regional Assessment process was initiated to recognise the differing ecological, social and economic needs of forested areas within Australia.<sup>154</sup> As a result of this process, 11 regions were identified: Tasmania; southwest Western Australia; southeast Queensland; five regions in Victoria (east Gippsland, Gippsland, the Central Highlands, west Victoria, and northeast Victoria); and three regions in New South Wales (northeast New South Wales, Eden, and southeast New South Wales). Following on from this assessment, 10 Regional Forest Agreements have been entered into.<sup>155</sup> Below is a diagram illustrating the implementation of the *National Forest Policy Statement*.

### **Flowchart of National Forest Policy Statement Process**

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<sup>150</sup> Commonwealth Government, above n141, 20.

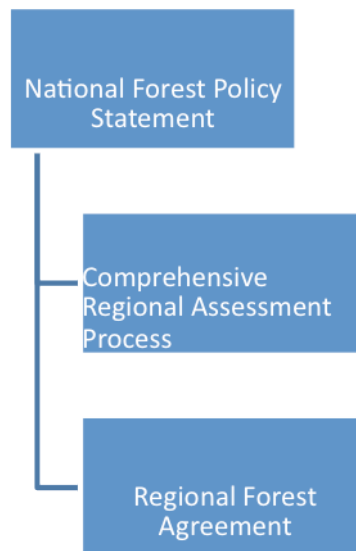
<sup>151</sup> Commonwealth Government, above n141, 21.

<sup>152</sup> Ibid.

<sup>153</sup> McDonald, above n 148, 325.

<sup>154</sup> Ibid 329.

<sup>155</sup> A comprehensive regional assessment process was carried out in South-East Queensland, but a Regional Forest Agreement was not signed by the Commonwealth and Queensland governments.



The purpose of introducing the *National Forest Policy Statement* and the associated regional forest agreements was as an attempt to resolve the conflict between the Commonwealth and state governments over the allocation, use and management of forests in Australia. Regional forest agreements provide a mechanism that allows both levels of government to reach agreement on the long-term management and use of forests in a particular region. The regional forest agreement process involves four steps:<sup>156</sup>

1. Formulation of scoping agreements; this involves identifying government obligations, regional objectives and interests and broad forests uses. The scoping agreement specifies arrangements for managing the process including details on timing, methodology, data requirements, consultative mechanisms and administrative and management requirements.
2. Identification and assessment of environmental and heritage values, economic opportunities, social impacts of resource use, and industry and community aspirations.
3. Generation of forest resource use options based on the environment, heritage, economic and social assessments, and involving the participation of local government, industry, unions, regional economic organisations, conservation groups and other interested parties.
4. Creation of the Regional Forest Agreement that outlines details of forest management and use arrangements that ensure that governments'

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<sup>156</sup> Department of Agriculture, Fisheries and Forestry, *The RFA Process: The Commonwealth Position* (2007) Australian Government: Department of Agriculture, Fisheries and Forestry <http://www.daff.gov.au/rfa/about/process/cwth-position> at 6 February 2009.

environmental obligations are met and industry has access to forest resources.<sup>157</sup>

The regional forest agreement process recognises that Commonwealth and state governments have a range of rights and responsibilities in relation to the protection of forest values and the sustainable use and development of forest resources. Regional forest agreements are designed to streamline and coordinate the various decision-making processes necessary to meet governments' obligations and interests in relation to forest use.<sup>158</sup> It has been suggested that while the regional forest agreement process and operation can be credited with resolving political conflicts between the two levels of government, that the fundamental conflict arising over forest allocation and use still remains.<sup>159</sup> Therefore, the regional forest agreements are a stepping-stone along the pathway to the creation of a more equitable and representative forestry framework. It should be noted that all regional forest agreements have resulted in an increase in the amount of forest areas under conservation status.<sup>160</sup>

The implementation of the regional forest agreement process has also attracted criticism for: failing to adequately consult relevant stakeholders;<sup>161</sup> failing to adequately value the non-market services associated with native forests; and rushing the ecological examinations, thereby undermining the scientific credibility of the comprehensive regional assessment process.<sup>162</sup>

Analysis of the regional assessment process frequently identifies the lack of effective stakeholder engagement as the major stumbling block of the process. The lack of stakeholder input into the final agreements has meant that the agreements do not adequately balance conservation and development agendas associated with forest areas. The lack of adequate stakeholder engagement has been attributed the process design. It has been suggested that the process effectively lays out a framework for Commonwealth/state engagement.<sup>163</sup>

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<sup>157</sup> Agreements all contain agreed details on the duration of the agreement and its implementation, and provisions for review at scheduled intervals and, if necessary, in exceptional and unforeseen circumstances.

<sup>158</sup> Department of Agriculture, Fisheries and Forestry, *The RFA Process: The Commonwealth Position* (2007) Australian Government: Department of Agriculture, Fisheries and Forestry <http://www.daff.gov.au/rfa/about/process/cwth-position> at 6 February 2009.

<sup>159</sup> Lane, above n142.

<sup>160</sup> McDonald, above n 148.

<sup>161</sup> Marcus Lane, 'Decentralization or privatization of environmental governance? Forest conflict and bioregional assessment in Australia' (2003) 19 *Journal of Rural Studies* 283; Gary Musselwhite and Gamini Hearth, 'Australia's regional forest agreement process: analysis of the potential and problems' (2005) 7 *Forest Policy and Economics* 579; Jayanath Ananda and Gamini Herath, 'Incorporating stakeholder values into regional forest planning: a value function approach' (2003) 45 *Ecological Economics* and 75; and Haripriya Rangan and Marcus Lane, 'Indigenous People and Forest Management: Comparative Analysis of Institutional Approaches in Australia and India' (2001) 14 *Society and Natural Resources* 145.

<sup>162</sup> See McDonald, above n 148, 325.

<sup>163</sup> Musselwhite and Hearth, above n161, 586.

Furthermore, it has been suggested that the advisory groups consulted were not selected on equitable grounds, and that groups with interests in opposition to the government were removed from the process.<sup>164</sup> In particular, groups representing indigenous forest interests should have been more actively engaged, because the regional forest agreement process could have been used to depoliticise indigenous forest interests with other competing forest interests.<sup>165</sup> A Rangan and Lane analysis concludes that the regional forest agreement process does not provide indigenous people with the opportunity to become actively involved in the management of forest areas.<sup>166</sup> Ananda and Hearth's research identifies that adopting a value-function approach in modelling stakeholder values in regional forest planning has the ability to more effectively incorporate value preferences into the decision-making process, while also increasing the transparency and creditability of forest regulatory frameworks.<sup>167</sup>

Slee suggests that even though a range of estimation techniques exists for valuing non-market goods, these models were overlooked by the regional forest agreement process. In particular, forest tourism values and forest recreational values were omitted from the economic analysis.<sup>168</sup> The failure to include these economic interests means the optimum balance between conservation and production-related uses was not struck, resulting in a bias towards timber forest product values.

The scientific creditability of the regional agreement forest process was also compromised because the reports were not subject to peer review or scientific debate.<sup>169</sup> As a result of this lack of transparency, the agreed level of sustainable harvest volume levels are deemed to not be scientifically valid. In some instances, regional forest agreements have led to increasingly unsustainable harvest practices.<sup>170</sup> The criteria used for assessing biodiversity were watered down during the process leading to less rigorous framework. Also, the reservation criteria were diluted by the introduction of wording that provided targets only needed to be met "if practicable and possible", making conservation dependent upon socio-economic considerations.<sup>171</sup> There are also accusations that the process ignored certain information and did not carry out appropriate studies to capture relevant information.<sup>172</sup>

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<sup>164</sup> Ibid.

<sup>165</sup> Ibid.

<sup>166</sup> Rangan and Lane, above n161, 157.

<sup>167</sup> Ananda and Hearth, above n161, 86.

<sup>168</sup> Bill Slee, 'Resolving production-environment conflicts: the case of the Regional Forest Agreement Process in Australia, (2001) 3 (1-2) *Forest Policy and Economics*, 17, 29.

<sup>169</sup> Musselwhite and Hearth, above n161, 585.

<sup>170</sup> Musselwhite and Hearth, above n161.

<sup>171</sup> McDonald, above n 148, 325.

<sup>172</sup> Jill Redwood, 'Sweet RFA' (2001) 26 (5) *Briefs* 255.

The role of regional forest agreements in protecting forest biodiversity was examined in *Brown v Forestry Tasmania and Others (No 4)* [2006] FCA 1729, and on appeal in *Forestry Tasmania v Brown* (2007) 167 34. This case was concerned with the validity and operation of the Tasmanian Regional Forest Agreement. The case arose due to the forestry practices being carried out in the Wielangta forest area, an area covered by a regional forest agreement. The case was brought on the grounds that the activities of Forestry Tasmania were likely to have a significant impact upon the broad-toothed stag beetle, the wedge-tailed eagle, and the swift parrot.<sup>173</sup>

At the federal level, the *Environmental Protection and Biodiversity Act 1999* (Cth) seeks to provide protection of the environment,<sup>174</sup> promote the conservation of biodiversity,<sup>175</sup> and to assist in the cooperative implementation of Australia's international environmental responsibilities.<sup>176</sup> This Act was introduced by the Federal Government using its external affairs powers.<sup>177</sup> By using these powers, the Commonwealth Government was implementing domestic law arising from international commitments under the *Convention on Biological Diversity*.<sup>178</sup> Under the Act, the minister has the power to prevent an action that will have, or is likely to have, a significant impact on certain aspects of the environment from proceeding.<sup>179</sup> However, ministerial approval is not required for actions carried out in areas where a regional forest agreement exists.<sup>180</sup>

In *Forestry Tasmania v Brown* it was argued that the Tasmanian Regional Forest agreement was not a valid regional forest agreement, and that as such provisions from the *Environmental Protection and Biodiversity Conservation Act* should apply. At first instance Justice Marshall of the Federal Court found that the Regional Forest Agreement was valid, therefore limiting the application of the protective provisions in the Act.<sup>181</sup> The Act requires that an individual must not take an action which will have or is likely to have a significant impact upon an endangered

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<sup>173</sup> *Brown v Forestry Tasmania and Others (No 4)* [2006] FCA 1729 [3].

<sup>174</sup> *Environmental Protection and Biodiversity Act 1999* (Cth) s 3 (1) (a).

<sup>175</sup> *Environmental Protection and Biodiversity Act 1999* (Cth) s 3 (1) (c).

<sup>176</sup> *Environmental Protection and Biodiversity Act 1999* (Cth) s 3 (1) (e).

<sup>177</sup> *Commonwealth of Australia Constitution Act* (Cth) s51 (xxix).

<sup>178</sup> "The EPBC Act was enacted to implement the provisions of the Convention on Biological Diversity 1992, and other international environmental agreements into Australian law. It also represents an attempt to consolidate and clarify the Commonwealth's responsibilities for environmental protection within the Australian Federation" *Minister for Environment and Heritage v Queensland Conservation Council Inc* (2004) 139 FCR 24 [2].

<sup>179</sup> *Environmental Protection and Biodiversity Act 1999* (Cth) 11.

<sup>180</sup> *Environmental Protection and Biodiversity Act 1999* (Cth) 11.

<sup>181</sup> *Brown v Forestry Tasmania and Others (No 4)* [2006] FCA 1729 [205].

species.<sup>182</sup> However, this provision of the Act is expressly stated to not apply to areas under regional forest agreements.<sup>183</sup>

However, it was held that clause 68 of the regional forest agreement had not been compiled with. This clause requires:

“The State agrees to protect the Priority Species ... through the CAR Reserve System or by applying relevant management prescriptions”<sup>184</sup>

The judge found that words ‘to protect’ meant ‘to deliver protection of’, and that ‘agreement to protect’ means exactly what it states.<sup>185</sup> Thus, when the CAR system does not protect priority species, the clause has not been compiled with. Justice Marshall found that the CAR system did not provide adequate protection for the beetle<sup>186</sup>, the parrot<sup>187</sup> or the eagle.<sup>188</sup> He found that, as such, the exemption under section 38 of the Act did not apply.<sup>189</sup> The exemption for regional forestry agreements should be viewed as only applying in instances where alternative means of promoting the recovery of a species is achieved by a regional forest agreement.<sup>190</sup> Furthermore, this interpretation is consistent with the implementation of Australia’s international commitments. This was justified on the basis of the decision in *Minister for Immigration and Ethnic Affairs v Teoh* (1995) 183 CLR 273, which provides:

“... that statute is to be interpreted and applied, as far as its language permits, so that is in conformity and not in conflict with the established rules of international law. ... courts should [*sic*] favour a construction, as far as the language of the legislation permits, that is in conformity and not in conflict with Australia’s international obligations”.<sup>191</sup>

On appeal in *Forestry Tasmania v Brown* (2007) 167 FCR 34, Justices Sundberg, Finkelstein and Dowsett found that clause 68 of the Tasmanian Regional Forest Agreement had been compiled with. The full Federal Court was of the opinion that the requirement to protect should not be constructed as actually ensuring that protection occurs. Rather ‘to protect’ merely requires the establishment of a system which has the objective of protecting.<sup>192</sup> The rationale for this interpretation was based on a finding:

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<sup>182</sup> *Environmental Protection and Biodiversity Act 1999* (Cth) s18 (3).

<sup>183</sup> *Environmental Protection and Biodiversity Act 1999* (Cth) s38.

<sup>184</sup> *Brown v Forestry Tasmania and Others* (No 4) [2006] FCA 1729 [214].

<sup>185</sup> *Brown v Forestry Tasmania and Others* (No 4) [2006] FCA 1729 [240].

<sup>186</sup> *Brown v Forestry Tasmania and Others* (No 4) [2006] FCA 1729 [261].

<sup>187</sup> *Brown v Forestry Tasmania and Others* (No 4) [2006] FCA 1729 [267].

<sup>188</sup> *Brown v Forestry Tasmania and Others* (No 4) [2006] FCA 1729 [270].

<sup>189</sup> *Brown v Forestry Tasmania and Others* (No 4) [2006] FCA 1729 [301].

<sup>190</sup> *Brown v Forestry Tasmania and Others* (No 4) [2006] FCA 1729 [301].

<sup>191</sup> *Minister for Immigration and Ethnic Affairs v Teoh* (1995) 183 CLR 273 287.

<sup>192</sup> *Forestry Tasmania v Brown* (2007) 167 FCR 34 [59].

“... that the regional forest agreement process reflects a compromise between employment and forestry industry concerns on the one hand and the environment on the other hand. Neither concern could be entirely met. There were some limits imposed on forest operations, but operations would continue and to the extent there was no guarantee that the environment, including species, would not suffer as a result”<sup>193</sup>

The reasoning provided for the view fails to consider Australia’s international commitments and established legal principles, such as those used by Justice Marshall. Furthermore, the golden rule of statutory interpretation requires that ordinary words be given their ordinary meaning. Using this rule as guidance, it is difficult to understand why the words ‘to protect’ do not actually mean ‘to protect’, but rather to create a system which has an ‘aim of protecting’. The decision by the full Federal Court seems to suggest that Australia’s commitment to protecting and conserving biological diversity only applies when economic interests are not disturbed.<sup>194</sup> Following the decision by the full Federal Court, the Tasmanian Regional Forest Agreement was amended to defeat the protection interpretation of ‘to protect’ made by the primary judge.<sup>195</sup>

The optimism expressed at the international level concerning the widespread introduction of National Forest Polices at domestic levels must be interpreted cautiously. This optimism must be measured against the actual implementation of the policy at the domestic level. As the Australian case study demonstrates, international obligations concerning forest use and management will only be implemented when other forest value interests (such as economic forest values) are not disturbed. Therefore, the age-old forestry regulation problem still remains: how to deal with competing forest interests. International law should take the lead in addressing this issue. The role of international forestry law should be to set firm principles that cannot be misinterpreted or misapplied.

## 6. Conclusion

### *Recommendations for reform*

The future mandate of the Forum needs to be established. Reform of the institutions is desired by many sectors of society, and is most likely required to attract future United Nations operational funding. The Forum should be reformed to perform one of the roles described below:

- The institution recognises its inability to create binding legal commitments and forest targets. Instead, the Forum should focus on acting as a coordinator for

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<sup>193</sup> *Forestry Tasmania v Brown* (2007) 167 FCR 34 [64].

<sup>194</sup> See Shasi Sivayoganathan, ‘Forestry Tasmania v Brown: Biodiversity Protection – An Empty Promise?’ (2007), 3, *National Environmental Law Review*, 21.

<sup>195</sup> *Ibid*, 26.



global international and intergovernmental program on forests. Within this new role, the institution would focus on aligning the research priorities of major global forest initiatives and implementing a streamlined singular reporting framework that can be used to meet most international reporting requirements. In this coordination role, the body would identify thematic areas of regulation and focus on connecting relevant stakeholders with the forest governing body most useful to them.

- The institution wins back the respect of its members and stakeholders by taking a hard-lined approach and creating a specific program of work, binding commitments, and binding targets. This type of action would be controversial, and it is likely that a number of parties would withdraw from this type of process. The withdrawal of these members would allow the program to move forward and develop. These parties may then be induced back into the regime at a later date by market and non-market incentives. The forum could follow in the lead of the climate change regime by creating binding commitments for developed countries in its first commitment period, with a view to increasing capacity within developing countries so that future commitment periods create obligations for these parties.

Currently, the Forum serves as an international ‘talkfest’ on forest-related issues and concerns. Long-formed alliances continue to operate within the negotiations, resulting in political power plays and stand-offs. Any major policy advances are soon turned into weakly worded aspirational statements to obtain consensus from the majority of parties.<sup>196</sup> The creation of non-legally binding aspirational statements serves no practical role in the global regulation of forests. Parties attend the negotiations, voice strong self-serving forest statements, and then return home to continue to operate a ‘business-as-usual’ forestry sector. Major reform must take place because the effort put into negotiations in the past has proved to be time consuming, fruitless and expensive.<sup>197</sup>

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<sup>196</sup> Deborah Davenport and Peter Wood, ‘Finding the Way Forward for the International Arrangement on Forests: UNFF-5,-6 AND-7’ (2006) 15 (3) *Review of the European Community and International Environmental Law* 316, 319.

<sup>197</sup> *Ibid.*

## **CHAPTER SIX:**

### **Regulation of Forests by the International Climate Change Regime**

“Forests are vitally important in addressing climate change because forest ecosystems affect the climatic conditions experienced on the earth’s climate, through the absorption of carbon in wood, leaves and soil. This carbon is released to the atmosphere when forests are burned or during forest clearance and harvesting. Quantifying the role of forests as sources of carbon emissions and in their role as carbon sinks has become essential to understanding the global carbon cycle.”<sup>1</sup>

#### **1. Introduction**

##### **A. Background on the climate change regime**

The United Nations Framework Convention on Climate Change was brought to life at the Earth Summit (Rio 1992). It was entered into force on the 21 March 1994. The convention is an impressive instrument, especially when one considers the time at which it was composed. Only recently has society begun to recognise the challenges and the potential seriousness of the effects of climate change. Society, government and industry are playing catch up in terms of accepting responsibility for the climate change dilemma. The 1992 Convention attributes the high presence of greenhouse gases in our atmosphere to industrialised nations.<sup>2</sup> It also directs industrialised nations to take responsibility for this<sup>3</sup> and creates a framework for addressing climate change at the international level.<sup>4</sup> Reading the convention in the current climate-conscious environment, demonstrates the ambitious and insightful nature of convention.<sup>5</sup> The convention can boast of almost universal membership with 192 parties having ratified the instrument.

The over-arching objective of the convention is found in Article 2:

“[The] stabilization of greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”

This objective has been stated repeatedly within international, national and local policy documents. Despite this, changes in the earth’s climatic conditions and patterns are occurring

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<sup>1</sup> Simon Dresner et al, *Forests and Climate Change: Global Understanding and Possible Responses* (2006), iv.

<sup>2</sup> *United Nations Framework Convention on Climate Change*, opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994). See the opening statement which provides “noting that largest share of historical and current global emission of greenhouse gases has originated in developed countries, and that per capita emissions in developing countries are still relatively low”.

<sup>3</sup> It does this in Article 3 by adopting the principle of “common but differentiated responsibilities” and stating that 3 (1) that developed country parties should take the lead in combating climate change and the adverse effects thereof.

<sup>4</sup> Convention, above n2, articles 7-26.

<sup>5</sup> For example, the convention provides a process for dispute settlement, creates a financial mechanism, and creates a number of specialised bodies for operation. This design demonstrates the far-sighted approach of the convention.

at an alarming rate. Some would argue that dangerous anthropogenic interference has already taken place. The Intergovernmental Panel on Climate Change released its fourth assessment report in 2007. The following were noted in that report:<sup>6</sup>

- Eleven of the last 12 years rank among the 12 warmest years in the instrumental record of global surface temperature (i.e. since 1850).
- Rising sea levels are consistent with warming, and the rate at which the sea level is rising has increased from an average of 1.8 mm per year in 1961 to an average of 3.1 mm per year from 1993 onwards.
- Decreases in snow and ice cover are also consistent with warming, and data shows that the Arctic sea ice has shrunk by 2.7% per decade – with larger decreases during summer at 7.4% per decade.
- Precipitation levels have varied with increased fall in North and South America, northern Europe and northern and central Asia, but with decreases in the Sahel, the Mediterranean, southern Africa and parts of southern Asia. Globally, the area affected by drought has likely increased since the 1970s.
- Over the past 50 years, frost and cold days and nights have become less frequent and hot days and nights have become more frequent.
- There has been observational evidence of an increase in intense tropical cyclone activity in the North Atlantic since 1970.
- Average Northern Hemisphere temperatures during the second half of the 20<sup>th</sup> century are likely higher than during any other 50-year period in the last 500 years, and likely the highest in at least the past 1300 years.

These data suggest that climate change is already occurring. This data and the application of the 'precautionary principle' create a basis for creating significant international obligations to address climate change. Furthermore, the data suggests that further steps need to be taken to address climate change. One way to bring about change is through policy reform. In 1997, at the third meeting of the parties, the Kyoto Protocol was adopted. This instrument sought to provide guidance on the implementation of the convention. The protocol was groundbreaking in terms of developing international environmental law. It created binding targets for parties, created new flexible mechanisms for implementation, and created a robust negotiation, accounting and reporting regimen. Despite being negotiated in 1997, the first commitment period for parties who ratified the protocol is from 2008–2012. During this period, parties have agreed to meet individually negotiated targets as specified in the annexure to the Protocol.<sup>7</sup>

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<sup>6</sup> Lenny Bernstein et al, *Climate Change 2007: Synthesis Report: Summary for Policy Makers*, Intergovernmental Panel on Climate Change, 2007.

<sup>7</sup> Each individual party has been given a target. For example, Australia, Iceland and Norway have targets that allow them to increase their emissions, while New Zealand and Russia seek to stabilise their emission levels. All other

The Conference of the Parties (which is an association of all parties to the Convention) meets annually to report and develop the international climate change regime. Decisions of the Conference of the Parties leads to clarification of existing legal requirements and definitions, research into emerging climate related topics, and negotiation of new policy directions. The role of the Conference of the Parties in advancing and developing the international climate change agenda is significant. The annual meeting of the Conference of the Parties assists in preventing climate change policy from stagnating and disappearing off national policy radars.

The international climate change regime is ambitious in its scope and design. During the first commitment period, the effectiveness of the protocol in reducing global emissions will be revealed. The first commitment period is focused on mitigating climate change; future commitment periods will likely focus on both mitigation and adaptation to climate change. Sceptics of the regime anticipate that the global target of reducing emissions by 5% from 1990<sup>8</sup> levels will not occur. Current predicative modelling shows that in circumstances where no mitigation action is taken, an increase in greenhouse gas emissions is certain.<sup>9</sup> At this stage, the story remains half untold. International climate change policy development will have to continue to address new and challenging scenarios. The advent and seriousness of these challenges will be dependent upon the regime's ability to control or limit emissions in the early commitment periods. For the sake of present and future generations, one must hope that the regime achieves success.

### ***B. The role of forests in the climate change regime***

About two-thirds of the globe's terrestrial carbon, exclusive of that sequestered in rocks and sediments, is sequestered in standing forests, forest understorey, plants, leaves, forest debris and in forest soils.<sup>10</sup> Forest ecosystems use five methods to store carbon. This occurs as carbon storage through above-ground biomass, below-ground biomass, litter, dead wood and soil's organic carbon. The process in which carbon is absorbed is as follows.<sup>11</sup> As the forest biomass experiences growth, the amount of carbon stored within the forest stock increases. As forest

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parties have agreed to reduce their emissions by a certain percentage. See *United Nations Framework Convention on Climate Change*, opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994) Annex B.

<sup>8</sup> *United Nations Framework Convention on Climate Change*, opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994), article 3.

<sup>9</sup> B Metz, O Davidson, P Bosh, R Dave, and L Meyer (eds) *Summary for Policymakers in Climate Change 2007: Mitigation, Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* IPCC, Cambridge University Press, 2007. This report finds that a range of policies, including those on climate change, energy security and sustainable development, have been effective in reducing greenhouse gas emissions in different sectors and many countries. The scale of such measures, however, has not yet been large enough to counteract the global growth in emissions.

<sup>10</sup> Roger Sedjo, *Forest and Biological Carbon Sinks after Kyoto*, Resources for the Future Washington, 2006.

<sup>11</sup> *Ibid*, 3.

ecosystems slowly decompose, the stored carbon is released back into the atmosphere. This means that the amount of carbon stored continually changes during the lifetime of the forest ecosystem.

When land that contains forest ecosystems is converted and is used for another purpose (for example, agricultural or rural development), there will be a net loss of carbon stored on the land. This is because most other land use processes sequester less carbon than forest ecosystems. If the previous forest site is cleared and burned, most of the stored carbon will be released back into the atmosphere.<sup>12</sup> However, because carbon is stored in forest ecosystems in a number of ways, the extent of land clearing and the method used to clear the land will vary the amount of carbon released back into the atmosphere. A further consideration is the ability of long-life wood products to store carbon. Wood products continue to store carbon until the point of decomposition of the material. This means that, if forest stock is converted to wood products, that the carbon stored in the wood will not be immediately released back into the atmosphere.

The variance in the amount of carbon stored in a forest ecosystem – and in the subsequent use of previously forested land – presents uncertainties for scientists who attempt to measure the amount of carbon stored. This scientific uncertainty has created legal uncertainty, while international negotiations attempt to grapple with incorporating forest sink activities within the international regime.

Forests are regulated under the Convention because of their ability to absorb and store carbon. There is no particular reference made to the individual biome of forests (for example, boreal, temperate or tropical), or to the classification of the forest (for example, primary forest or plantation forest). The term ‘forest’ is used in Article 4 of the Convention. Upon assessment of the Convention, it can be understood that the instrument does not intend to limit its application to a certain type of forest. Negotiations following the creation of the convention have attributed a definition to forest, and this definition is inclusive of all forest types.

## **2. The Institutional Structure of the International Climate Change Regime**

### ***A. Implementing bodies of the Convention***

The governance structure underlying the implementation of the international climate change is comprehensive and involves three bodies: the Secretariat, the Conference of the Parties, and two permanent subsidiary bodies. The Secretariat is charged with providing organisational support and technical expertise during negotiations. It is also responsible for facilitating the

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<sup>12</sup> Ibid, 4.

flow of authoritative information on the implementation of the Convention.<sup>13</sup> The Secretariat's precise duties are outlined in Article 8 of the Convention: notably, subsection (e) requires the Secretariat to ensure the necessary coordination with the secretariats of other relevant international bodies. Climate change will impact upon all sectors of society, thus integration, input and cooperation from key stakeholder representatives groups is crucial for the regime's success.

The COP is the principle body created by the convention. This body is an association of all the countries that are a party to the Convention. The COP meets annually unless otherwise specified.<sup>14</sup> Article 7 of the Convention outlines the purpose and function of the COP. The mandate of the COP is wide-ranging and requires, among other listed duties: to examine the obligations of the parties in light of the experience gained in the implementation and evolution of scientific and technological knowledge;<sup>15</sup> to seek to mobilise financial resources;<sup>16</sup> and to seek the services and cooperation of competent international organisations<sup>17</sup>. Practically, the COP is responsible for adopting decisions and requesting further research or information, thus guiding the direction and form of the regime.

The research body of the international climate change organisation is the Intergovernmental Panel on Climate Change (IPCC). This body was created by the United Nations Environment Programme and World Meteorological Organization to provide an objective source of information about climate change. The IPCC provides scientific, technical and socio-economic information to policy-makers from an unbiased and (some suggest) conservative standpoint. The IPCC has produced four assessment reports. These have significantly influenced the international climate change regime development and its ongoing operation and implementation.<sup>18</sup>

The Convention also established two permanent subsidiary bodies known as the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI). Article 9 of the Convention creates the SBSTA, whose main purpose is to provide timely information and advice on scientific and technological matters relating to the Convention. The SBSTA is comprised of government representatives selected as being

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<sup>13</sup> United Nations Framework Convention on Climate Change, *The Secretariat* (2007) <http://unfccc.int/secretariat/items/1629.php> at 7 January 2008.

<sup>14</sup> United Nations Framework Convention on Climate Change, *Meetings* (2007) <http://unfccc.int/meetings/items/2654.php> at 7 January 2008.

<sup>15</sup> Convention, above n2, Article 7 (a).

<sup>16</sup> *Ibid*, Article 7 (h).

<sup>17</sup> *Ibid*, Article 7 (l).

<sup>18</sup> Intergovernmental Panel on Climate Change, *About the IPCC*, (2004) <http://www.ipcc.ch/about/index.htm> at 7 January 2008.

competent in their relevant field of expertise. Article 10 of the Convention creates the SBI, which seeks to ensure compliance with Article 12 of the Convention. Article 12 requires parties to provide a national inventory of emissions and removals<sup>19</sup> and a general description of steps taken by the party to implement the Convention.<sup>20</sup> The SBI is open for all parties to participate and is comprised of government representatives who are experts on matters related to climate change.

### ***B. Membership to the Convention***

The Convention recognises three different categories of membership, each attracting different levels of commitment. This categorisation of membership is consistent with the international concept of common but differentiated responsibility. The concept is based upon a shared notion of fairness.<sup>21</sup> Within the climate change regime, it is recognised that developed countries are disproportionately responsible for the high level of greenhouse gas emissions present in the atmosphere and, therefore, have a historical responsibility to make amends. In addition to this historical responsibility, developed countries also have the greatest capacity to implement activities aimed at decreasing greenhouse gas emissions.

The concept of common but differentiated responsibility as a principle manifests itself clearly within the Convention.<sup>22</sup> This principle acknowledges that every state has a common responsibility in relation to the global environment. Differentiated responsibilities arise due to the unique circumstances of each state.<sup>23</sup> A number of justifications exist for differentiated treaty obligations including:<sup>24</sup>

- the recognition of the differing capacities and capabilities among states;
- the recognition of historic entitlements and legitimate expectations;
- responsibility for mitigation, therefore, being attributed on the basis of past actions;
- the notion that the international community is under an obligation to take into account the special needs and circumstances of developing countries;

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<sup>19</sup> Convention, above n2, Article 12 (1) (a).

<sup>20</sup> Convention, above n2, Article 12 (1) (b).

<sup>21</sup> P Harris, 'Common but Differentiated Responsibility: The Kyoto Protocol and United States Policy' (1999) 7 *New York University Environmental Law Journal* 27, 28.

<sup>22</sup> See Article 3(1) provides that all states should protect the climate system for the benefit of present and future generation of humankind, on the basis of equity and in accordance with their "common but differentiated responsibilities and respective capabilities – accordingly the developed country parties should take the lead in combating climate change the adverse effects thereof."

<sup>23</sup> Erika Melkas, 'Sovereignty and Equity within the Framework of the Climate Regime' (2002) 11(2) *Review of European Community and International Environmental Law* 115, 123.

<sup>24</sup> Ibid.

- the notion that the international community has entered a new stage of international cooperation that obliges the more developed states to take on more burdensome obligations; and
- the notion that differentiated responsibilities provides an inducement to hesitant states (particularly developing ones) to participate in multilateral environmental agreements.

Creating a mutual responsibility with differentiated standards also imparts an obligation on capable states to assist less capable states. This has the potential to improve environmental conditions within less capable states, hence providing a general benefit to global community (i.e. of improved ecosystem management). It is thought that fewer environmental obligations for less capable and less responsible states will undermine the operation of global initiatives. Therefore, it is better for all states to have similar responsibilities, while acknowledging that some states will require more assistance with their responsibilities than others.<sup>25</sup>

This concept is believed to have evolved from the notion of the ‘common heritage of mankind’.<sup>26</sup> Climate change is clearly a common concern of humankind. Moving forward from this presumption, liability for abating climate change needs to be established. Guidance for establishing liability can be found in Principle 23 of the *Stockholm Declaration*, and in Principle 7 of the *Rio Declaration on Environment and Development*:<sup>27</sup>

“States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. In view of the different contributions to the global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command”<sup>28</sup>

In accordance with existing international theory, Article 3 obliges developed countries to take the lead in combating climate change and the adverse effects thereof.<sup>29</sup> Developing countries that bear a disproportionate or abnormal burden are given special recognition within the convention.<sup>30</sup> Formally, the differentiated responsibilities are recognised by creating a three-tier membership approach. The three types of membership are:<sup>31</sup>

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<sup>25</sup> Erika Melkas, ‘Sovereignty and Equity within the Framework of the Climate Regime’ (2002) 11(2) *Review of European Community and International Environmental Law* 115, 123.

<sup>26</sup> Harris, above n21, 28.

<sup>27</sup> *Ibid*, 29.

<sup>28</sup> Declaration of the United Nations Conference on the Human Environment, June 16, 1972, 23 11 ILM 1416 at Principle 7.

<sup>29</sup> Convention, above n2, Article 3 (1).

<sup>30</sup> Convention, above n2, Article 3 (2).

<sup>31</sup> *Ibid*.



1. Annex I Parties – These countries are responsible for creating a regulatory domestic framework aimed at controlling their emissions output. Countries that were members of the Organisation for Economic Co-operation and Development (OECD) in 1992, plus countries with economies in transition (EIT) including the Russian Federation, the Baltic states, and several Central and Eastern European states are Annex I parties. Basically, all states that have capacity to act on regulating emissions will be Annex I parties.<sup>32</sup>
2. Annex II Parties – These countries are required to provide financial assistance to enable developing countries to undertake emission reduction activities and help developing countries to adapt to the adverse effects of climate change. They are also obliged to take all practical steps to promote the development and transfer of environmentally friendly technologies to economy in transition parties and developing parties. The Convention creates a financial mechanism within Article 11 (which funding is channelled through for these purposes). A number of Annex I parties (the OECD members), therefore, attract Annex II obligations in addition to their Annex I obligations.<sup>33</sup>
3. Non-Annex I Parties – These are mostly developing countries, and countries that are recognised as being especially vulnerable to the adverse impacts of climate change (low-lying coastal areas, and areas prone to desertification and drought). In addition, countries that rely heavily on income from fossil fuel production and commerce are given non-Annex 1 status. These countries do not have any formal obligations under the Convention.<sup>34</sup>

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<sup>32</sup> *Parties with Annex 1 obligations are:* Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, European Economic Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lichtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Britain and Northern Ireland and United States of America.

<sup>33</sup> *Parties with Annex II commitments are:* Australia, Australia, Belgium, Canada, Denmark, European Economic Community, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland and United States of America.

<sup>34</sup> *Parties with non-Annex I commitments are:* Afghanistan, Albania, Algeria, Angola, Antigua and Barbuda, Argentina, Armenia, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Congo, Cook Islands, Costa Rica, Cuba, Cyprus, Côte d'Ivoire, Democratic People's Republic of Korea, Democratic Republic of Congo, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, The former Yugoslavia Republic of Macedonia, Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Iran, Israel, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Lao People's Democratic Republic, Lebanon, Lesotho, Liberia, Libyan Arab Jamahiriya, Madagascar, Malawi, Maldives, Mali, Malta, Marshal Islands, Mauritania, Mauritius, Mexico, Micronesia, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nauru, Nepal, Nicaragua, Niger, Nigeria, Niue, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Qatar, Republic of Korea, Republic of Moldova, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marion, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Solomon Islands, South Africa, Sri Lanka, Sudan, Suriname, Swaziland, Syrian Arab Republic, Tajikistan, Thailand, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, Tuvalu, Uganda, United Arab Emirates, United Republic of Tanzania, Uruguay, Uzbekistan, Vanuatu, Venezuela (Bolivian Republic of), Viet Nam, Yemen, Zambia, Zimbabwe.

### **C. Stakeholders of the Convention**

To combat (or perhaps have) any significant affect upon the unwanted effects of climate change, the climate change regimen has to interact with a large number of stakeholders. Clearly, there are a number of stakeholders within the climate change regime, and the challenge for the regime is to ensure that sufficient opportunity is provided for their consultation and input. Stakeholder participation can be examined from a macro and micro perspective. At a macro level, relevant international institutions and international interest groups should be involved in the creation of new commitments and obligations. Article 7(6) of the Convention allows the United Nations and its specialised agencies to be given observer status. The participation of observers is regulated by rules created by the Conference of the parties.

At the macro level, United Nations institutions which are deemed to be highly relevant to the climate change regime include: United Nations Conference on Trade and Development (UNCTAD); United Nations Development Programme (UNDP); United Nations Environmental Programme (UNEP), United Nations Institute for Training and Research (UNITAR); United Nations University (UNU), International Strategy for Disaster Reduction (ISDR); World Money Organisation (WMO); Intergovernmental Panel on Climate Change (IPCC); United Nations Industrial Development Organisation (UNIDO); Global Environmental Facility (GEF); and the World Bank.<sup>35</sup>

The United Nations Forum on Forestry (UNFF) is not specifically mentioned as a key body in the regime; however, with increased attention focused on the relationship between forests and climate change, this body may well become more relevant in the future. Conversely, the lack of particular reference to the UNFF may be a reflection on the climate change's view on the role of UNFF in international forest policy. The operation of Article 7(6) of the convention would mean that the UNFF would automatically gain observer status, as it is a United Nations body formed under the Economic and Social Council. Two non-United Nations forest bodies have also been given observer status: the Centre for International Forestry Research (CIFOR) and the International Tropical Timber Organisation (ITTO).<sup>36</sup>

At the micro level, two levels of participation can be identified: firstly, participation and engagement with the individual states that are a party to the Convention; secondly, participation and engagement with individual communities. The Secretariat requires that each party to the Convention nominate "a national focal point" that acts as the main point of

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<sup>35</sup> United Nations Convention on Climate Change, *Intergovernmental Organisations and the Climate Change Process* (2007) [http://unfccc.int/parties\\_and\\_observers/igo/items/3720.php](http://unfccc.int/parties_and_observers/igo/items/3720.php) at 9 January 2008.

<sup>36</sup> United Nations Convention on Climate Change, *List of Admitted International Organisations* (2007) <http://maindb.unfccc.int/public/igo.pl?mode=wim> at 9 January 2008.

contact for that party concerning activities in the climate change regime on a day-to-day basis.<sup>37</sup> There has been some criticism about the level of effective stakeholder engagement with local communities when it comes to the implementation of UNFCCC obligations.<sup>38</sup> This suggests that effective stakeholder engagement is required at both the stage of creation of the obligations and at the implementation of the obligations.

### **3. International Instruments created by the International Climate Change regime concerning forests**

#### ***A. Rules concerning forest practices***

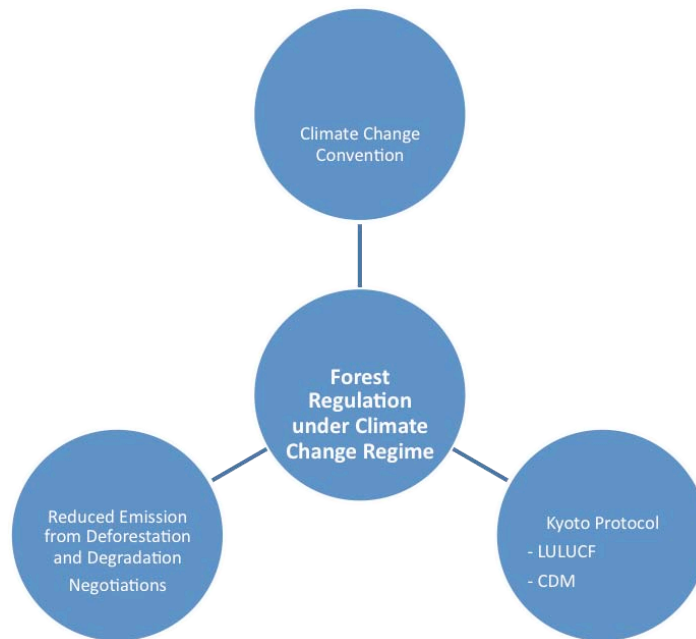
Forests are regulated under the international climate change regime in a number of ways. Different forest activities attract the operation of different forest policies. Forests are regulated by the operation of the United Nations Convention on Climate Change and the Kyoto Protocol, and negotiations are currently taking place to regulate activities related to reducing emissions from deforestation and degradation. The United Nations Convention on Climate Change sets out a number of broad obligations related to mitigating adverse risks of climate change. A number of these obligations refer specifically to forest activities. The Kyoto Protocol specifies the types of forest activities that are suitable to include within accounting frameworks created by the Protocol. These forest activities are then further explained in the *Land-Use, Land-Use Change, and Forestry Guidelines*. One of the flexibility mechanisms created under the Protocol (namely, the clean development mechanism) has created special rules for the inclusion of forest projects within its operation. Policy is currently under development to reward parties that reduce emissions from deforestation and degradation.

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<sup>37</sup> F Yasmin and J. Depledge, *The International Climate Change Regime: A guide to Rules, Institutions and Procedures* (2004), 31. Chapter 3 of this book provides an in-depth discussion of all the climate change regime participants.

<sup>38</sup> To meet the requirements of stakeholder engagement under the Clean Development Mechanism, the developing country must only agree to the development activity proposed by the investing country. It has been suggested that this process fails to deliver sustainable development and does not require meaningful local stakeholder input and consultation. See: E Boyd and M Guiterrez, 'Small-scale forest carbon projects: Adapting CDM to low-income communities' (2007) 17 (2) *Global Environmental Change* 250; C Binkley and D Brand, 'Carbon sink by forest sector – options and needs for implementation' (2002) 4(1) *Forest Policy and Economics* 65; and K Brown and E Corbera, 'Exploring equity and sustainable development in the new carbon economy' (2003), 3, *Climate Policy Special Supplement on Climate Change and Sustainable Development*, 41.

## Forest Regulation within International Climate Change Regime



Material in this section is organised according the method of regulation outlined above. This will involve analysis of the:

1. United Nations Framework Convention on Climate Change
2. Kyoto Protocol
  - a. Land Use, Land Use Change and Forestry (LULUCF) Guidelines
  - b. Clean Development Mechanism (CDM) Mechanism
3. Reduced Emissions from Deforestation and Degradation Negotiations

### ***B. United Nations Framework Convention on Climate Change***

The United Nations Framework Convention on Climate Change (herein termed 'Convention') sets no mandatory targets on greenhouse gas emission and contains no enforcement provision.<sup>39</sup> It does, however, create a number of obligations for Annex I parties. These include:<sup>40</sup>

- Implementing policies to reduce emissions of greenhouse gases, with the aim of reducing greenhouse gas emissions to 1990 levels.

<sup>39</sup> Greg Milner-White, 'The Legal Implications of Climate Change in New Zealand for the Forestry Industry' (2007) 11 *New Zealand Journal of Environmental Law* 141, 147.

<sup>40</sup> *Ibid.*

- Periodically communicating information to the international climate change regime (including projections of future emissions and removal by sinks).
- Monitoring and reporting on net greenhouse gas emissions.
- Assisting developing countries (non-Annex I parties) to address climate change through financial assistance and technology transfer.

The Convention states in the opening plenary of the instrument that the parties to this instrument are:

“Aware of the role and importance in terrestrial and marine ecosystems of sinks and reservoirs of greenhouse gases.”<sup>41</sup>

This use of the word ‘aware’ is interesting; on the face of it, this would seem to indicate knowledge and acceptance of the important role that sinks play in the carbon cycle. This statement, therefore, does not seem to require any immediate action. The Convention does not spell out the role of sinks in addressing climate change; however, there is reference to sinks within Articles 1, 3, and 4 of the instrument.<sup>42</sup> Article 1 provides definitions of key concepts central to understanding the purpose of the Convention. Within this list, ‘sink’ is defined to mean any process, activity or mechanism that removes greenhouse gases. This definition is wide enough to encompass a range of earth cycle processes that absorb carbon (such as services performed by trees, grasslands and soils).

Article 3 contains the principles of the Convention. These are common but differentiated responsibilities found in Article 3(1) and (2) and the Precautionary Principle found in Article 3(3). Sinks are also recognised in Article 3(3) – where it is stated that all “policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases.”<sup>43</sup>

Article 4(d) of the Convention creates an obligation in relation to forest areas:

“[To] promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans, as well as other terrestrial coastal and marine ecosystems.”<sup>44</sup>

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<sup>41</sup> Convention, above n2.

<sup>42</sup> Kenneth Rosenbaum, Dieter Schone, Ali Mekouar, ‘Climate Change and the Forest Sector: Possible national and subnational legislation’ (FAO Working Paper No 144, Food and Agriculture Organization of the United Nations, 2004) 5.

<sup>43</sup> Convention, above n2.

<sup>44</sup> Ibid.

Under Article 4(1), all parties must:<sup>45</sup>

- Develop and update inventories of emissions and removals of greenhouse gases (this includes emissions that occur as result of deforestation and removals that occur as a result of forest management activities).<sup>46</sup>
- Develop programs to mitigate climate change, including efforts to address emissions and sinks (which would include forests and their soils).<sup>47</sup>
- Promote technologies that lead to lower greenhouse gas emissions in a number of sectors including the forestry sector.<sup>48</sup>
- Promote sustainable management of sinks and reservoirs (forests are again specifically mentioned).<sup>49</sup>
- Prepare to adapt to the impacts of climate, and develop appropriate plans for areas that might be subject to flooding, drought or desertification.<sup>50</sup>

Forest-dependent developing countries are also given special recognition under the Convention. Article 4(8)(c) requires parties to consider the impact of the Convention's obligations on developing countries with forested areas. It encourages funding, insurance and technology transfer to be given to these countries. The reasoning underlying this obligation comes from what would be the otherwise unfair burden that forest-dependent developing countries face in addressing concerns related to climate change. It should be restated here that developing countries do not have binding commitments under the Convention. This Article is merely recognising the unfair burden that forest dependent developing countries may face in future initiatives to combat climate change.

### ***C. Kyoto Protocol***

The Kyoto Protocol was created to implement the obligations created by the Convention. The Kyoto Protocol is an individual legal instrument that countries must ratify independently of the UNFCCC. It is, of course, linked to the UNFCCC; ideally all parties to the UNFCCC would also become parties to the Kyoto Protocol and fulfil their obligations under both instruments. On 11 December 1997, after two-and-half years of intense discussions and negotiations, the Kyoto Protocol was adopted at the third COP meeting. The nature of the Protocol is different to the

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<sup>45</sup> Kenneth Rosenbaum, Dieter Schone, Ali Mekouar, 'Climate Change and the Forest Sector: Possible national and subnational legislation' (FAO Working Paper No 144, Food and Agriculture Organization of the United Nations, 2004), 5.

<sup>46</sup> Convention, above n2, 4 (1) (a).

<sup>47</sup> Ibid, 4 (1) (b).

<sup>48</sup> Ibid, 4 (1) (c).

<sup>49</sup> Ibid, 4 (1) (d).

<sup>50</sup> Ibid, 4 (1) (e).

Convention. It sets more specific obligations and mechanisms to control greenhouse gas emissions.

The implementation of the Protocol affects most major sectors of the global economy.<sup>51</sup> For this reason, the Protocol is thought to be the most far-reaching instrument in existence, creating enforceable obligations geared towards achieving environmental and sustainability objectives. Article 3 of the Protocol sets a specific target for its first operational period from 2008 to 2012. The overall goal of the Protocol is to reduce developed countries' emissions by 5.2% from 1990 levels.

The Protocol creates a framework designed to ensure that a 5% reduction in global emissions is achieved by allocating each Annex I party with a certain number of *Assigned Amount Units* for the 2008–2012 period. Each assigned amount unit represents a right to emit one tonne of carbon dioxide or equivalent.<sup>52</sup> If parties exceed their allocation, they can create additional assigned amount units by implementing projects under the Clean Development Mechanism or the Joint Implementation Mechanism. This creates a system whereby parties to the Kyoto Protocol are able to meet their targets by implementing domestic policy to reduce emissions, or by investing in projects in other countries that lead to reduced emissions. This flexible approach allows parties to minimise transaction costs associated with the implementation of reduced emission activities and creation of new low-emissions technologies.

Under Article 3 of the Protocol, parties are able to take into account the effect of domestic forest activities within their emission calculations. This allows parties to meet their specified target of greenhouse gas reduction by including reductions that occur as a result of forestry activities. This, therefore, rewards parties that carry out practices to enhance the sustainable management of their forest areas. This section also requires that parties account for: emission changes resulting from deforestation; forest activities that act as sinks of greenhouse gas emissions; and forest activities that act as sources of greenhouse gas emissions.

Article 3(3) of the Protocol specifies the particular forest activities that can be included for accounting purposes. These are defined to be afforestation, reforestation and deforestation. This definition limits the inclusion of 'avoided deforestation' activities within the Kyoto framework (this is why a separate 'Reduced Emissions from Deforestation and Degradation' instrument is being created). Under Article 3(3), these three activities must be included in parties' reports, and must be reported in a manner that is transparent and verifiable.

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<sup>51</sup> Ross Garnaut, *The Garnaut Climate Change Review* (2008).

<sup>52</sup> All gas emissions are converted into carbon dioxide measurements. For further information see Peter Grace:?? <--  
– missing citation.

Article 3(4) of the Protocol allows parties to opt in or out of its requirements. Under this article, parties may include in their accounting practices any greenhouse gas emission sources that occur as a result of land-use change, forestry practices and agricultural practices. Again, within this section, parties are required to account for source and sink emissions resulting from these practices. Therefore, it is voluntary for parties to report upon sink/source values of forest areas (due to the complexity associated with measuring and reporting, most parties have opted out of reporting upon this activities). It has been suggested that that the 'opt in or out' process allows parties to select only those activities from which they expect to gain credits, and to ignore other activities through which they would incur debits.<sup>53</sup>

Article 3(7) of the Protocol allows Annex I parties with net emissions in 1990 (from land-use change and forestry) to add these emissions to their base year emissions for the determination of their assigned amount.<sup>54</sup> The operation of this clause means that parties that in 1990 had net emissions from land use change and forestry practices receive a benefit (because their actual assigned unit quota will increase). 'Net' means that the sustainable land practices are outweighed by unsustainable practices. Annex I parties that, in 1990, had net emissions from other sectors do not receive the benefit offered by the operation of article 3(7). This article operates to reward those parties that previously generated net emissions from unsustainable land use.<sup>55</sup> Australia was responsible for inserting this article. It has been suggested that this was self-serving for Australia, which (as a result of this article and other negotiations) could have an emission increase of 8% during the first commitment period.

Often the land-use, land-use change, and forestry modalities have been discussed in reference to forestry clean development mechanism modalities. It must be stressed that, while both of these sets of rules relate to forestry activities under the Kyoto framework, they operate independently of one another and apply to different circumstances. Land-use, land-use change, and forestry are modalities used by parties to account for forest activities that occur within their own jurisdictions. These rules are used to account for the land and forest activities that act as a sink or source of emissions, and are used when preparing national emission inventories.

The clean development mechanism forestry rules come into operation when an Annex I party invests in a forest project in a developing country and wants to include this activity in its

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<sup>53</sup> Bernhard Schlamadinger, et al, 'A Synopsis of land use, land-use change and forestry (LULUCF) under the Kyoto Protocol and Marrakech Accords' (2007), 10, *Environmental Science and Policy* 271, 280.

<sup>54</sup> Ian Fry, 'Twists and Turns in the Jungle: Exploring the Evolution of Land Use, Land-Use Change and Forestry Decisions within the Kyoto Protocol' (2002) 11(2) *Review of European Community and International Environmental Law* 159, 161.

<sup>55</sup> *Ibid.*



accounting practices. During the first commitment period, these separate accounting practices in relation to forestry activities will continue. Later commitment periods may see an amalgamation of rules concerning forest activity eligibility and accounting practices.

#### ***D. Land-use, land-use change, and forestry guidelines and modalities***

The first draft of Articles 3(3), 3(4) and 3(7) of the Kyoto Protocol (relating to accounting of sinks and sources) were ambiguous. The operation of these articles in relation to forest and land-use change activities was not clear for a lengthy period of time after their initial drafting. It was only through developments that took place in succeeding years that the actual requirements of these articles were embellished.

Upon first reading, the names of these modalities (Land-Use, Land-Use Change, and Forestry) appear lengthy and unclear. It has been suggested that not only the name of the modalities, but also the modalities themselves are overly complex.<sup>56</sup> Basically, they cover forest and land management activities that lower greenhouse gas emissions. Each part of the title refers to an activity that achieves this. 'Land-use' refers to land practices that effect emission levels; 'land-use change' refers to practices where the purpose of land-use is changed (and which consequently affects the level of emissions); and 'forestry' refers to activities carried out within forests that act as sinks or emitters of greenhouse gases.

Parties were hesitant about including and creating rule for land-use, land-use change, and forestry- for a number of reasons. A major concern of the parties related to the concept of leakage. This concept refers to the reduction of emissions within one area while, simultaneously in another area, the emissions are instead carried out. As an example, leakage occurs in a forest area when deforestation is prevented from occurring in one area by merely shifting the deforestation to another forest area. Acknowledgement of this concept has the ability to undermine all rules concerning land and forestry management, especially when one considers leakage on the international scale. For example, developed countries comply with Kyoto reporting requirements and are, therefore, more heavily reliant on importing products from developing countries not regulated by Kyoto requirements.

Other issues that arose in the creation and implementation of the land-use, land-use change, and forestry guidelines are related to: definitions of key concepts; concerns about scale; concerns about non-permanence; concerns about uncertainty; concerns about creditability; reporting requirements; harvested wood products; and biodiversity. Each of these issues is

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<sup>56</sup> R Benndorf, et al, 'Including land use, land-use change and forestry in future climate change, agreements: thinking outside the box' (2007) 10 *Environmental Science and Policy* 283, 284; Bernhard Schlamadinger et al, 'Options for including land use in a climate agreement post 2012: improving the Kyoto Protocol approach' (2007) 10 *Environmental Science and Policy*, 295, 297.

analysed below. In addition to this, some commentators have suggested how to improve the land-use, land-use change, and forestry rules for the second commitment period (also examined below).

### *i. Definitions*

The first challenge that arose was the attribution of legal definitions to key concepts within Article 3(3) (e.g. forests, afforestation, reforestation and deforestation). The development of these definitions proved to be an extended, contentious process. The special report prepared by the Intergovernmental Panel on Climate Change<sup>57</sup> explored the issues surrounding the adoption of key definitions. Definitions were crucial because these assisted in determining the amount of land in Annex I countries that could be accounted for under Article 3(3).<sup>58</sup> Various definitions were suggested by different stakeholders, who were interested in adopting definitions suiting their individual needs.<sup>59</sup> Some definitional challenges included: ensuring that the definition did not provide incentives for native forest to be replaced with plantation forest; whether a minimum tree canopy method took into account the wide variety of forests; and, whether a minimum area space was required.<sup>60</sup>

At the seventh session of the Conference of Parties hosted in Marrakesh in 2001, the following key definitions were agreed upon. The relevant definitions are located in Decision 11 of the Conference of the Parties seventh session report.

- ‘Forest’ is a minimum area of land 0.05–1 hectares with tree crown cover (or equivalent stocking level) of more than 10–30% with trees with the potential to reach a minimum height of 2–5metres in maturity *in situ*. A forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground or open forest. Young natural stands, and all plantations that have yet to reach a crown density of 10–30% or tree height of 2–5 metres, are included under the forest, as are areas normally forming part of the forest area that are temporarily unstocked as a result of human intervention (such as harvesting or natural causes but which are expected to revert to forest).<sup>61</sup>

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<sup>57</sup> Robert Watson, et al, *IPCC Special Report Land Use, Land-Use Change and Forestry: Summary for Policymakers*, Intergovernmental Panel on Climate Change (2000).

<sup>58</sup> *Ibid*, 5.

<sup>59</sup> For further information on the political motivations see: Ian Fry, ‘Twists and Turns in the Jungle: Exploring the Evolution of Land Use, Land-Use Change and Forestry Decisions within the Kyoto Protocol’ (2002) 11(2) *Review of European Community and International Environmental Law* 159, 163.

<sup>60</sup> *Ibid*.

<sup>61</sup> Report of the Conference of the Parties on its Seventh Session, held at Marrakesh from 29 October to 10 November 2001, GE.02-60222, 7<sup>TH</sup> sess, UN Doc FCCC/CP/2001/13/Add.1, at Decision 11, 58.

- ‘Afforestation’ is the direct human-induced conversion of land that has not been forested for a period of at least 50 years and forested through planting, seeding and/or the human induced promotion of natural seed sources.<sup>62</sup>
- ‘Reforestation’ is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human induced promotion of natural seed sources on land that was forested, but that has been converted to non-forested land. For the first commitment period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989.<sup>63</sup>
- ‘Deforestation’ is the direct human-induced conversion of forested land to non-forested land.<sup>64</sup>

Additionally at the Marrakesh accords (Conference of the Parties, seventh session), the optional article 3.4 activities were clarified. Article 3(4) refers to land-use change, forestry activities and agricultural practices. This ambiguous reference required further clarification as to which particular activities could be including in accounting practices and it was decided that the following activities were suitable for inclusion:<sup>65</sup>

- Revegetation<sup>66</sup>
- Forest Management<sup>67</sup>
- Cropland Management<sup>68</sup>
- Grazing Land Management<sup>69</sup>

The above four activities allow for a greater amount of land management activities to be incorporated into accounting practices. These four categories could be used to support the implementation of policies aimed at sustainable forest management and sustainable planning and development rules. Article 3(4), therefore, provides an incentive for government to introduce regulatory frameworks compatible with the Kyoto definitions, so that sustainable land management and forest practices can be included in national accounting practices. Forest

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<sup>62</sup> Ibid.

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<sup>65</sup> Report of the Conference of the Parties on its Seventh Session, held at Marrakesh from 29 October to 10 November 2001, GE.02-60222, 7<sup>TH</sup> sess, UN Doc FCCC/CP/2001/13/Add.1, at Decision 11, 58.

<sup>66</sup> Revegetation is a direct human-induced activity to increase carbon stock on sites through establishment of vegetation that covers a minimum area of 0.05 hectares, and does not meet the definition of afforestation or reforestation.

<sup>67</sup> ‘Forest Management’ is a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social function of the forest in a sustainable manner.

<sup>68</sup> ‘Cropland Management’ is the system of practices on land on which agricultural crops are grown and on land that is set aside or temporarily not being used for crop production.

<sup>69</sup> ‘Grazing land management’ is the system of practices on land used for livestock production aimed at manipulating the amount and type of vegetation and livestock produced.

certification frameworks assign certification status to producers who are following sustainable forest management practices. Therefore, links should be established between forest certification regimes and Kyoto reporting regimes so that these sustainable forest management practices can be included in Kyoto accounting procedures. It should be noted that forest management activities are capped, so that only 9 mega tonnes of carbon can be accounted for each year from this activity.<sup>70</sup>

Once the initial definitional hurdle was overcome, new legal challenges emerged. There was great concern that land and forest management practices were cheaper and quicker to implement than other sectoral initiatives aimed at addressing climate change. Additionally, there was scientific uncertainty as to the amount of carbon sequestered and the duration for which carbon was sequestered in land management and forest practices. Graichen<sup>71</sup> classifies these concerns into four categories: scale, non-permanence, uncertainty, and creditability. Solutions to these concerns were created at the seventh session of the conference of the parties in 2001.

#### *ii. Scale concerns*

There was concern about the considerable amount of carbon that is stored in soils and plants. The total value of carbon stored in these sources is thought to be substantial.<sup>72</sup> It was thought that inclusion of forest management and land enhancement activities would dominate emission reduction activities and that other sectoral mitigation approaches (e.g. energy sector) would suffer as a result. Planting of forests is seen a cheaper alternative than the creation of new low-carbon sources of energy. There is, however, a great need for the development of low-carbon energy sources and industry practices. The climate change regime was concerned about detracting from the development of cleaner technologies and did not want forest and land management to act as a perverse incentive against this.

To overcome these concerns, it was decided to cap or limit the amount of credits that can be generated from these types of activities. Each party would be allocated a forest and land management credit limit. These limits are specified in Decision 11 of the seventh session of the COP.<sup>73</sup> To prevent parties from generating forest sink credits in developing countries where it

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<sup>70</sup> This cap was negotiated at the sixth and seventh conference of the parties' accords. For further detail see: Kenneth Rosenbaum, Dieter Schone, Ali Mekouar, 'Climate Change and the Forest Sector: Possible national and subnational legislation' (FAO Working Paper No 144, Food and Agriculture Organization of the United Nations, 2004), 16.

<sup>71</sup> Patrick Graichen, 'Can Forestry Gain from Emissions Trading? Rules Governing Sinks Projects Under the UNFCCC and the EU Emissions Trading System' (2005) 14 (1) *Review of the European Community and International Environmental Law* 11, 11-12.

<sup>72</sup> *Ibid.*

<sup>73</sup> Decision 11/CP.7 *Land use, land-use change and forestry* (10 November 2001) contained in document FCCC/CP/2001/13/ ADD.1, at 54-63 available at <http://maindb.unfccc.int/library> at 16 January 2008.

is cheaper to establish forest sinks, a cap was introduced. This cap was 1% of the parties' greenhouse gas emissions, measured at the 1990 level. Forestry activities can only be used to offset 1% of the 1990 level.<sup>74</sup> No limit was set for land management activities, because it was determined that only a small amount of carbon is stored by these activities and that a cap was, thus, not necessary.

### *iii. Non-permanence concerns*

'Non-permanence' concerns focus on the uncertainty that surrounds forests, soils, and other vegetation's capacity to store carbon. This uncertainty relates to the amount of carbon sequestered and the duration for which carbon is stored. Because carbon is stored in these products as part of natural cycles, the amount and duration of carbon storage is never stable. Rather, the amount of carbon stored continually changes. This natural cycle of carbon storage presents difficulties for these practices to be included within accounting frameworks. If the amount of carbon stored is non-permanent, this begs the question of how these activities can be recognised by carbon accounting modalities.

In relation to these non-permanence concerns, and by way of response, the Conference of the Parties developed accounting practices. It was decided that, if parties choose to use forest sinks in their accounting practices, they would then be liable to account on two fronts: firstly, they must account for the removal of the carbon as a credit; secondly, they must account for emissions that occur as a result of the natural life cycles of forests, soil, and vegetation processes. These accounting practices take place at the appropriate point in time (i.e. when the carbon is stored and when the carbon is released).<sup>75</sup>

The relatively limited scope of the Land-Use, Land-Use Change, and Forestry activities means that the non-permanence risk associated with these activities is generally small for the first commitment period.<sup>76</sup> If, however, the global community was to adopt a full carbon accounting framework (that is, one that includes all emissions and removals on all managed land in all pools and of all relevant greenhouse gases, without temporal interruption), then the risk associated with non-permanence could significantly impact a country's ability to meet

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<sup>74</sup> Graichen, above n71, 11-12.

<sup>75</sup> See at 1(g) where it states: that reversal of any removal due to land use, land-use change and forestry activities be accounted for at the appropriate point in time. Decision 11/CP.7 *Land use, land-use change and forestry* (10 November 2001) contained in document FCCC/CP/2001/13/ ADD.1, at 54-63 available at <http://maindb.unfccc.int/library> at 16 January 2008

<sup>76</sup> Schlamadinger et al, above n53, 274.

commitments. On the other hand, the integrity of the atmosphere would be better preserved.<sup>77</sup>

#### *iv. Uncertainty concerns*

There is a large degree of scientific uncertainty surrounding the capacity of forests, soils and other vegetation to sequester carbon.<sup>78</sup> There is more certainty about forests' ability to store carbon compared with that for soil and vegetation. This is due to published research findings on the topic.<sup>79</sup> More advanced carbon sequestration methodologies exist for different tree species, and the uncertainty concerns are lessened by their availability. Methodologies that measure soils and other vegetation carbon storage capacity are still in infancy and, as such, make it difficult to include within accounting practices. Without clear scientific consensus on the carbon storage capacity of soils and vegetation, inclusion of these activities within accounting frameworks is problematic.

In relation to issues linked to lack of scientific consensus and uncertainty, it was decided that treatment of these activities would be based on sound science.<sup>80</sup> This requires the introduction of a thorough monitoring system, which has the ability to monitor all greenhouse gas emissions and removals in identifiable areas of land. An independent review team must then review this system.<sup>81</sup> This issue was not dealt with conclusively, because the decision calls for technological and scientific development. In the absence of these models, it has been suggested that best available knowledge at the time be used and that the development of technologies to monitor these practices is encouraged.<sup>82</sup>

#### *v. Creditability concerns*

Creditability concerns relate to the concept of additionality. This concept requires that an additional activity take place for the activity to be included in accounting frameworks. In relation to forest and land management activities, there was concern that these land and forest management activities were already taking place (the 'business-as-usual' scenario). Rewarding these practice means that no additional new activity has taken place, which

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<sup>77</sup> Bernhard Schlamadinger et al, 'A Synopsis of land use, land-use change and forestry (LULUCF) under the Kyoto Protocol and Marrakech Accords' (200) 10 *Environmental Science and Policy* 271, 274.

<sup>78</sup> Graichen, above n71, 13.

<sup>79</sup> Robert Watson, et al, *IPCC Special Report Land Use, Land-Use Change and Forestry: Summary for Policymakers*, Intergovernmental Panel on Climate Change (2000)

<sup>80</sup> See at 1(a) which provides that the treatment of land use, land-use change and forestry activities be based on sound science. Decision 11/CP.7 *Land use, land-use change and forestry* (10 November 2001) contained in document FCCC/CP/2001/13/ ADD.1, at 54-63 available at <http://maindb.unfccc.int/library> at 16 January 2008.

<sup>81</sup> Graichen, above n71, 12.

<sup>82</sup> Patrick Graichen, 'Can Forestry Gain from Emissions Trading? Rules Governing Sinks Projects Under the UNFCCC and the EU Emissions Trading System' (2005) 14 (1) *Review of the European Community and International Environmental Law* 11, 13

effectively undermines the operation of a carbon accounting regime (because there has been no real change). It has been suggested that allowing for land and forest management activities to be included within accounting frameworks opens up the possibility for corruption of the system through ‘mere storytelling’. For example, claims might arise stating that a certain forest area was planned to be cleared, but that, in light of the accounting benefit, this clearing was no longer to take place. Determining the truthfulness of these types of claims would introduce a new layer of complexity to the regime.

In relation to the credibility concerns, it was decided that that the “mere presence of carbon stock should be excluded from accounting practices”.<sup>83</sup> This has the effect of limiting the type of land and forest management activities that can be taken into account. This means that only specified activities – such as afforestation, reforestation, revegetation, forest management, cropland management, and grazing land management – can be used for accounting practice. It also means that all existing carbon sinks are not automatically incorporated into accounting practices. This requires that some ‘additional activity’ be carried out to account for these practices. It was also decided at this juncture that avoided deforestation should be excluded from accounting practice, due to additionality and evidentiary concerns.<sup>84</sup>

#### *vi. Reporting requirements*

The operation of these modalities requires parties to identify ‘Kyoto land’. This is land that is being used in accordance with land-use, land-use change, and Forestry guidelines. Kyoto land must be identified in national inventories, which are then used to meet international reporting requirements. This has increased the reporting burden on parties because virtually every piece of organic carbon on specified Kyoto lands has to be accounted for.<sup>85</sup> This is a large undertaking for parties with vast organic carbon storage opportunities. This reporting requirement also assumes that parties have the capacity and technology to monitor organic carbon storage processes.

#### *vii. Harvested wood products*

A further issue yet to be fully resolved relates to the storage of carbon that takes place in long-life wood products. Current accounting practices do not take into account the fact that carbon remains to be stored in harvested wood products. Under current accounting practice, it is assumed that once a tree is cut down the carbon stored in the wood is lost and, as such, must be

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<sup>83</sup> Decision 11/CP.7 *Land use, land-use change and forestry* (10 November 2001) contained in document FCCC/CP/2001/13/ ADD.1, at 54-63 available at <http://maindb.unfccc.int/library> at 16 January 2008, 1 (d).

<sup>84</sup> Graichen, above n71, 13.

<sup>85</sup> Ian Fry, ‘More Twists, Turns and Stumbles in the Jungle: A further Exploration of Land Use, Land-Use Change and Forestry Decision within the Kyoto Protocol’ (2007), 16 (3), *Review of the European Community and International Environmental Law*, 341, 342.

duly reported as an emission.<sup>86</sup> However, these accounting practices do not equate with scientific understanding in the area (which demonstrates that carbon is stored for varying periods in harvested wood products). Within the first commitment period, carbon stored in harvested wood products is not eligible for inclusion within accounting inventories. Parties in a position to do so are able to voluntarily report on harvested wood products in their national inventories.<sup>87</sup> Negotiations on the post-2012 period provide a means for possible inclusion of wood products in accounting practices.<sup>88</sup>

#### *viii. Biodiversity concerns*

The inclusion of forest activities within the international climate change framework means that forest policy challenges are now being faced by the climate change regime. One of these issues is the compatibility of Kyoto forest practices and biodiversity. Forests contribute to climate change mitigation as terrestrial sinks and assist conservations efforts by acting as pools of biological diversity.<sup>89</sup> Therefore, a potential conflict could arise in the implementation of Kyoto forestry rules. By way of example in relation to afforestation and reforestation rules, a landowner will receive an economic incentive to plant species of trees that are high absorbers of carbon dioxide. These high carbon absorption tree species may, however, not lead to the highest level of biological diversity possible on the relevant parcel of land.

These concerns were addressed at the Marrakesh meeting of the Conference of the Parties, where it was decided that activities under Article 3(3) and 3(4) must contribute to the conservation and biodiversity and to the sustainable use of natural resources. Parties must report on their administrative and legislative procedures that ensure this. It has been suggested that the reporting requirement do not go far enough, because they only require that parties provide information on national laws, and do not require information on tangible results for the conservation of biodiversity.<sup>90</sup>

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<sup>86</sup> Fry, above n54, 163.

<sup>87</sup> Subsidiary Body for Scientific and Technological Advice, 26<sup>th</sup> Session, Intergovernmental Panel on Climate Change guidelines for national greenhouse gas inventories, Agenda item 7 (a) Methodological issues under the Convention, FCCC/SBSTA/2007/L.5, GE.07-70214 (2007).

<sup>88</sup> Ardienne Grêt-Ragamey, et al, *Challenges and Opportunities of Accounting for Harvested Wood Products*, Swiss Federal Office for the Environment, UNECE/FAO and MCPFE, (2008).

<sup>89</sup> Frederic Jacquemont, Alejandro Caparros, 'The Convention on Biological Diversity and Climate Change Convention 10 Years after Rio: Towards a Synergy of the Two Regimes?', (2002), 11 (2), *Review of the European Community and International Environmental Law*, 169.

<sup>90</sup> Jacquemont, above n89, 172. Also see Imke Sagemuller, 'Forest Sinks under the United Nations Framework Convention on Climate Change and the Kyoto Protocol: Opportunity or Risk for Biodiversity?' (2006), 31, *Columbia Journal of Environmental Law*, 189.



### *ix. Future land-use, land-use change, and forestry guidelines*

The current accounting regulatory framework for land-use, land-use change and forestry is complex and arduous to understand and implement. This is largely due to the difficulty associated with creating a framework based upon incomplete knowledge and uncertainty (about terrestrial carbon storage and release). The complexity of the regime is also related to parties promoting their own self-interests, as opposed to incorporating best-practice guidelines (which aim to reward practices that meet the additionality requirements and reduce emissions). Parties have sought to make amendments or inclusions of particular activities to make their Kyoto obligations more acceptable.<sup>91</sup> In the future, to ensure the integrity of the land-use, land-use change and forestry framework, individual party needs should be overlooked in the interests of creating a framework that provides incentives practices which lead to lower emissions and increased terrestrial carbon storage.

A number of weaknesses can be identified in the current system:<sup>92 93</sup>

- The biased application of Article 3(7). This article allows parties – for whom land-use change and forestry practices before 1990 led to a net source of emissions – to include emissions from deforestation in their actual assigned unit, thus raising their quota in the first commitment period. Not all parties meet this requirement, and so deforestation is not managed consistently in relation to determining actual assigned unit allowances. It is suggested that Article 3(7) be amended so that all parties' deforestation rates are inclusive within their actual assigned unit quotas.
- Creating a cap limit for the amount of forest management activities that can be included within accounting inventories acts as a disincentive against improved forest management. Improved forest management should be encouraged and caps should be reassessed or removed.
- Considerations related to harvested wood products should be included within the second commitment framework. The 2006 IPCC Guidelines for National GHG Inventories provides several approaches for reporting approaches and guidelines for harvested wood products inclusion within reporting guidelines.<sup>94</sup>

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<sup>91</sup> Fry, above n85.

<sup>92</sup> A number of reasons are suggested to support amendment of the current regime, such as the complexity of the rules and time limits applied to the rules (i.e. only valid for first commitment period). It has also been suggested that sectoral approaches may be an option for the second commitment period. Sectoral approaches focus on means addressing a sector that it is a high emitter, and creating a framework to address this particular sector (i.e. forestry sector or energy sector). For further information on these options, see: R Benndorf, et al, 'Including land use, land-use change and forestry in future climate change, agreements: thinking outside the box', (2007), 10, *Environmental Science and Policy* 283, 284.

<sup>93</sup> Schlamadinger et al, above n53, 297.

<sup>94</sup> *Ibid.*

## ***E. Clean development mechanism and forestry***

### *i. Flexibility mechanisms*

The Kyoto Protocol creates three flexibility mechanisms that can be used by the parties in meeting their individual international commitments. These mechanisms are designed to assist Annex I parties to meet their emissions targets at least cost. These three mechanisms are: the clean development mechanism, joint implementation, and emissions trading. The clean development mechanism has developed special rules for forestry projects. The purpose of each mechanism is briefly outlined below.

The clean development mechanism allows developed countries (Annex I parties) to invest in emission reduction programs in developing countries and record this activity in their national emissions inventory. This is beneficial, as it decreases transaction costs for developed countries and decreases emissions in developing countries. Joint implementation allows developed countries to invest in emission reduction projects in other developed countries and record this activity in their national emission inventory.<sup>95</sup> Emissions trading allows developed countries to trade in unused emission units that have been assigned under the Protocol. This rewards Annex I parties who undertake significant emission reduction activities, because they are able to sell additional units and receive an economic incentive for doing so.<sup>96</sup>

### *ii. CDM sink politics*

The inclusion of forest sinks within the operational modalities of the clean development mechanism was an extended and contentious process. The development of the modalities led to divisive negotiating platform resulting in the creation of alliances among nations with common interests in forest policy.<sup>97</sup> The negotiations leading to these modalities proved to be the most controversial of all forest negotiations within the international climate change regime.<sup>98</sup>

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<sup>95</sup> This quote is useful in understanding the difference between the clean development mechanism and joint implementation: "The key difference between Joint Implementation and Clean Development Mechanism projects is that while the Clean Development Mechanism generates *additional* emission rights that flow into the emissions trading system, a Joint Implementation project establishes a *transfer* of emission rights owned by one Annex 1 Party to another. In essence, the CDM raises the cap established by the Kyoto Protocol for Annex 1 Parties, while Joint Implementation gives rise to a transaction within the cap" from Patrick Graichen, 'Can Forestry Gain from Emissions Trading? Rules Governing Sinks Projects Under the UNFCCC and the EU Emissions Trading System' (2005) 14 (1) *Review of the European Community and International Environmental Law* 11, 16.

<sup>96</sup> For further analysis on the three mechanisms, see: Greg Milner-White 'The Legal Implications of Climate Change in New Zealand for the Forestry Industry', (2007), 11, *New Zealand Journal of Environmental Law*, 141, 148-150.

<sup>97</sup> The USA and developing countries with high tropical forest cover formed an alliance to argue for the inclusion of sinks. The European Union, India, Indonesia and the Association of Small Island States formed an alliance seeking a more responsible approach for forest sink inclusion. For further information on these alliances, see: Emily Boyd, et al, 'UNFCCC negotiations (pre Kyoto to COP 9): what the process says about the politics of CDM-sinks', (2008), 8, *International Environmental Agreements*, 95, 106.

<sup>98</sup> *Ibid.*

Opponents against the inclusion of forest sinks within the clean development mechanism argued that inclusion of sinks created a loophole which developed countries could use to postpone the implementation of domestic policies and measures aimed at reducing greenhouse gas emissions. This would, therefore, undermine the development of competitive climate-friendly technologies.<sup>99</sup> Alliances that sought to include forest activities in the mechanism argued that investment in the forestry sector was a crucial step in developing measures to address global deforestation. They also argued that investment in forest projects provided social benefits to local communities by providing diversified income streams and other socio-economic benefits.<sup>100</sup> Ultimately, forest practices were incorporated within the clean development mechanism. The contentious nature of including forests within the clean development mechanism led to the creation of cumbersome operational modalities.<sup>101</sup>

There is a range of legal issues related to implementation of forest projects within the clean development mechanism:

- Defining eligible forest practices
- Creating a 'cap' that regulates the amount of sink credits generated
- Creating unique certified emission reduction credits for forest practices
- Creating operational modalities for CDM forest practices
- Defining land and property rights in carbon
- Providing market demand and transaction costs associated with sinks in the CDM
- Developing capacity to implement forest practices in developing countries

### *iii. Eligible forest activities*

To generate certified emission reduction credits from forest activities, the forest activity must fall into the afforestation or reforestation category. This means that the conservation of existing forests is not an eligible activity under the clean development mechanism. The concept of protecting and conserving existing forest areas is now a proposal termed 'reducing emissions from deforestation and degradation'. In upcoming negotiations, this proposal will be debated (with opponents arguing for and against its inclusion within the clean development mechanism modalities). This proposal will be analysed in greater detail in Section 5.3.4.

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<sup>99</sup> Ibid.

<sup>100</sup> Ibid.

<sup>101</sup> A study examined scientific knowledge and international policy development in the CDM sink arena. It found that scientific knowledge is not used to inform policy development, rather political motivations guide policy development and science plays catch up trying to fill in the scientific uncertainties created by the policy development. See: Matilda Palm, Madelene Ostwald and John Reilly, 'Land use and forestry based CDM in scientific peer-reviewed literature pre and post COP 9 in Milan', (2008), 8, *International Environmental Agreements*, 249.

The following definitions apply to sink projects under the clean development mechanism. These definitions are the same definitions used under the land-use, land-use change and forestry modalities and were adopted for the clean development mechanism at the ninth Conference of the Parties session.<sup>102</sup> These definitions can be summarised as:<sup>103</sup>

- *Forest*: minimum area of land of 0.05 to 1 hectare with tree crown cover of more than 10% to 30%, with trees potential to reach a minimum height of 2–5 metres at maturity.
- *Afforestation*: the foresting of a land that has not been forested for at least 50 years.
- *Reforestation*: the foresting of land that did not contain forest on 31 December 1989.

A number of activities are specified to fall within the afforestation and reforestation definitions. These activities are agroforestry, monoculture or mixed industrial plantations, forest landscape restoration projects, forest landscape restoration projects on degraded or protected land, community forest projects, and other afforestation or reforestation projects that focus on timber production, biomass energy or watershed management.<sup>104</sup> These activities have been described as:<sup>105</sup>

- Agroforestry – systems of mixing agricultural or horticultural crops and livestock with woody perennials.
- Monoculture or mixed industrial plantations – forest areas planted with selected tree species.
- Forest landscape restoration – these help to restore many of the goods and services that enhance the ecological integrity and provide tangible benefits to local people living in degraded or deforested landscapes. Activities include natural regeneration, tree planting and agro-forestry.
- Community forestry – this emphasises the social dimension of forestry and its contribution to sustainable livelihoods of rural people.
- Biomass energy – projects which generate energy using organic matter that is available on a renewable basis. Biomass can be sourced from agricultural crops, timber and organic waste.

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<sup>102</sup> Kenneth Rosenbaum, Dieter Schone, Ali Mekouar, 'Climate Change and the Forest Sector: Possible national and subnational legislation' (FAO Working Paper No 144, Food and Agriculture Organization of the United Nations, 2004), 17.

<sup>103</sup> Refer to full definitions above under the *Land-use, land-use change and forestry* heading.

<sup>104</sup> Maria Socorro Manguiat, et al, *Legal Aspects in the Implementation of CDM Forestry Projects*, IUCN Environmental Law Programme (IUCN Environmental Policy and Law Paper No 59), (2005), 7-8.

<sup>105</sup> Ibid.

#### *iv. Cap limit on forest sinks*

The contentious nature of the negotiations about the use of sinks resulted in a cap being introduced to limit the amount of sink credits obtainable under the clean development mechanism. During the first commitment period, parties can claim 1% of their 1990 base year emission rate using credits generated from sinks activities under the mechanism. Parties can claim 1% for each year of the first commitment period, meaning that a total of 5% of sink clean development mechanism credits can be included in accounting inventories.<sup>106</sup> This cap was introduced to placate those parties concerned that these sink credits would flood the global emission market.

#### *v. Certified emission reduction sink credits*

Certified emission reduction credits generated from afforestation or reforestation activities are different from the other credits generated under the clean development mechanism; the most significant difference between them and energy-related projects is the temporary nature of carbon storage in forest projects. To recognise the non-permanent nature of carbon storage in terrestrial carbon stocks, new categories of certified emission reduction credits were devised. Two categories of credits can be generated from afforestation and reforestation activities:<sup>107</sup>

- Temporary certified emission reduction credits
- Long-term certified emission reduction credits.

Temporary certified emission reduction credits have to be replaced every five years. Long-term certified emission reduction credits have a lifespan of 60 years, but still must be verified every five years. The non-permanence issues increase the transaction cost of afforestation and reforestation credits. Temporary credits have to be replaced at the end of the five-year lifespan. Depending on the market value of other available credits at the end of the credit's lifespan, this may work be financially unfeasible (because credit price may increase significantly in the future). This, therefore, acts as a disincentive to investing in sink credits under the clean development mechanism.

While the long-term credits have a more extended lifespan, they still need to be replaced at the end of it. The longer lifespan may mean that, when the purchase of the replacement credits takes place, the price of the replacement credits is much more expensive. Additionally, the verification process every five years will also involve transaction costs. Comparatively,

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<sup>106</sup> This cap came from negotiations at the 6<sup>th</sup> and 7<sup>th</sup> Conference of the Parties negotiations; see: Kenneth Rosenbaum, Dieter Schone, Ali Mekouar, 'Climate Change and the Forest Sector: Possible national and subnational legislation' (FAO Working Paper No 144, Food and Agriculture Organization of the United Nations, 2004), 17.

<sup>107</sup> Rosenbaum et al, above n102, 17-18.

credits generated from energy activities do not suffer the permanence issues and, as such, may require higher up-front investment. However, overall, they may be viewed as a more preferable way to meet emission reduction targets.

*vi. Operational modalities*

Certified emission reduction credits are obtained through a complex and lengthy process. Critics of the process suggest that the process inhibits the number of projects in the pipeline and, importantly, reduces the amount of projects implemented that are reducing greenhouse gas emissions.<sup>108</sup> To obtain credits under the clean development mechanism, a number of steps must be fulfilled:<sup>109</sup>

1. Background research to ensure a suitable selection of the project site – a number of issues related to land tenure should be considered at this stage: the legal status of the land; who owns the land?; who uses/occupies the land?; who will act on behalf of the land?; does the law require the present use of the land to be incorporated into the project design?; if land use change is to occur, is approval and re-zoning required?; and what other permits/clearances need to be obtained to carry out the project?
2. Submission of project design documentation – this document must meet specified requirements. It is to outline the nature and purpose of the project.
3. Selection of baseline methodology – the methodology is used to determine the amount of emissions removed by the project. Parties may create their own baseline methodology (which must be approved) or use a methodology that already exists. Methodologies already exist for grassland to forest, cropland to forest, wetland to forest, and settlement to forest.
4. Validation of project by the Conference of the Parties to the Kyoto Protocol.
5. Registration of a validation report submitted by the Designated Operational Entity – this is an independent accredited body that assesses the amount of emissions removed by the project.
6. Monitoring of the project area to ensure compliance with project design documentation.
7. Verification of the emission reduction – whereby parties nominate the first verification date and re-verification will then take place every five years.
8. Certification – whereby the Designated Operational Entity certifies that a project activity achieved the net anthropogenic greenhouse gas removals as verified.
9. Issuance of certified emission reduction credits – where the amount of credits issued is based on the calculation reached at certification.

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<sup>108</sup> Kenneth Rosenbaum, Dieter Schone, Ali Mekouar, 'Climate Change and the Forest Sector: Possible national and subnational legislation' (FAO Working Paper No 144, Food and Agriculture Organization of the United Nations, 2004).

<sup>109</sup> Manguiat et al, above n105, 9-11.

### *vii. Property rights*

The rights attached to certified emission reduction credits are generally protected by contract law.<sup>110</sup> The country that sponsors the project does not usually obtain ownership of the land where the project is carried out. Generally, the contract specifies the obligations associated with land during the contract term (life of the credit). Contracts normally contain specific clauses to ensure compliance with the objective of carbon sequestration. Some of the issues that such contracts deal with include: plantation maintenance; replanting of seedlings that die off; harvest modalities; issues of risk (fire and pests); and the agreed financial arrangements between the parties.

In host countries where a land registry is in operation, the certified emission reduction credits may be registrable with the land registrar.<sup>111</sup> This provides extra security for the sponsoring country should the project land be sold and transferred to another party. Alternatively, where the legal system does not recognise the certified emission reduction as a registrable interest, the contract may contain a clause that makes the certified emission reduction credit a separate alienable right. This means that the owner of the land can transfer the project land without transferring the rights associated with the certified emission reduction credits.<sup>112</sup>

### *viii. Capacity development*

Because the clean development mechanism is implemented in developing countries, the success of the project will be dependent upon the host countries regulatory capacity. Furthermore, it should also be recognised that forest-related capacity issues faced by other international regimes will also be faced by the international climate change regime.<sup>113</sup> Strong regulatory capacity is essential for ensuring that the integrity of the project is maintained. A pre-condition for the clean development mechanisms future will be the resolution of methods aimed at improving developing countries' capacity for foreign investment.

The table below identifies six pre-conditions that are required for the implementation of the clean development mechanism. These conditions can be assessed by using the question or

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<sup>110</sup> Maria Socorro Z Manguiat, *Legal Aspects in the Implementation of CDM Forestry Projects* IUNC Environmental Policy and Law Paper No 59, (2005), 20.

<sup>111</sup> For example, in Ghana, the right to certified emission reduction credits is potentially recognisable as a right/interest in or over land capable of being registered in the register of the Land Title Registry. {Socorro, 2005 #390} at 50.

<sup>112</sup> In the Philippines, it may be possible to classify a certified emission reduction as a forest resource, and the right to certified emission reduction as immovable property. As a forest resource, certified emission reduction could be transferred not only to Philippine nationals, but foreigners as well; and, as an immovable property, the interest in the right could be more securely protected than if the certified emission reductions were treated as movable property. {Socorro, 2005 #390} at 50

<sup>113</sup> Jade Saunders, Johannes Ebeling and Ruth Nussbaum, *Reduced Emissions from Deforestation and Degradation: Lessons from a forest governance perspective*, ProForest, Eco Securities and Chatham House, (2008)

determinant in the adjacent column. This table is from the work of Minang, Bressers, Skutsch, and McCall.<sup>114</sup>

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<sup>114</sup> Minany, Peter, Hans Bressers, Margaret Skutsh and Michael McCall, 'National Forest Policy as a platform for biosphere carbon management: the case of community forestry in Cameroon', (2007), 10, *Environmental Science and Policy*, 204, 207



CDM Requirements	Compatibility question or determinant
Institutional Development	What is the nature of the designated national authority? How do current institutions support CDM projects?
Eligibility	What is the country definition of a forest? What is the country definition of a lo-income community or individual?
Additionality	How are the land and resource tenure rights implemented? How does forest policy cater for forest resource management risk?
Acceptability	What are the sustainable development criteria and indicators for the host country? What laws regulate the use of potentially invasive species and genetically modified organisms in the forestry sector?
Externalities	How are environmental and social impact assessment regulation applied in resource management?
Certification	What procedural regulation exists for CDM project approval?

*ix. CDM sink market demand*

The regulatory framework underpinning sinks within the clean development mechanism were finalised at the ninth Conference of Parties in 2003. This late finalisation of the modalities has affected the uptake of sink projects in the first commitment period. This is partly explained by the fact that average tree rotation cycles range between 5 to 15 years. Parties do not have the time to start these rotations for the first commitment period. Additionally, other disincentives (such as the temporary nature of the credits and capacity development issues) may also act as a deterrent against wide implementation of these rules.<sup>115</sup> As a means for overcoming these issues, it has been suggested that developing countries should unilaterally create credits and sell them on the international markets (because it is anticipated that there will be a demand for credits but not for investments in projects).<sup>116</sup> Furthermore, the European Union has decided to exclude sink-certified emission reduction credits from the trading scheme; this has decreased the potential global demand for forest sink credits.<sup>117</sup>

A study has been conducted that found significant tracts of land exist worldwide that could be used for afforestation and reforestation practices under the clean development mechanism.<sup>118</sup> The study found that 749 Mha were biophysically suitable for meeting the eligibility sink requirements. The social, economic and environmental benefits of sink projects should not be

<sup>115</sup> Martin Jung, 'The role of forestry projects in the clean development mechanism', (2005), 8, *Environmental Science and Policy*, 87

<sup>116</sup> Axel Michaelowa, 'Unilateral CDM – can developing countries finance generation of greenhouse gas emission credits on their own?', (2007), 7, *International Environmental Agreements*, 17.

<sup>117</sup> Emily Boyd, et al, 'UNFCCC negotiations (pre Kyoto to COP 9): what the process says about the politics of CDM-sinks' (2008) 8 *International Environmental Agreements* 95, 108.

<sup>118</sup> Robert Zomer, et al, 'Climate change mitigation: A spatial analysis of global land suitability for clean development mechanism afforestation and reforestation', (2008), 126, *Agriculture, Ecosystems and Environment*, 67.

overlooked. In certain countries, sink activities will be vital in lowering emissions. In Brazil, 25% of emissions stem from agriculture and 56% from land-use activities.<sup>119</sup> These figures demonstrate the demand that exists in certain nations for afforestation and reforestation projects.

Sink projects implemented under the clean development mechanism have the potential to deliver a range of benefits.<sup>120</sup> They lower emissions in developing countries, improve environmental conditions in developing countries and, in some circumstances, will lead to improved livelihood outcomes for local communities (by provision of ecosystem services and income generating activities). The innovative part of the clean development mechanism is, however, the funding generated from developed countries to implement such projects. The provision of potential funding for projects in developing countries definitely holds (and will continue to hold) appeal in future climate change negotiations.

#### ***F. Reduced emissions from deforestation and degradation***

As described above, forest activities under the Kyoto Protocol are restricted to afforestation and reforestation. During all Kyoto forest negotiations, issues related to the inclusion of 'avoided deforestation' have remained unresolved.<sup>121</sup> Initially, some proponents wanted avoided deforestation included within the clean development mechanism forest activities. This notion was rejected due to the existence of a number of scientific uncertainties and methodology gaps. The purpose of an avoided deforestation mechanism is to provide incentives to developing countries to decrease the level of deforestation occurring at unsustainable levels. This mechanism would be prohibitive because it restricts the sovereign use of parties' land. In some instances, parties may have to improve the remaining forest estate and this will attract positive obligations of management. Designing a regulatory framework that rewards parties for not cutting down trees has involved consideration of a number of legal issues – with many of these issues remaining unresolved.

##### *i. Development of policy*

At the eleventh session of the Conference of the Parties hosted in Montreal in 2005, the concept of 'reduced emission from deforestation and degradation' arose. The governments of Papua New Guinea and Costa Rica (with the support of 8 other parties) requested that the reduced emission from deforestation and degradation proposal be added to the agenda. This

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<sup>119</sup> Marcos Teixeira, et al, 'Assessment of land use and land use change and forestry (LULUCF) as CDM projects in Brazil', (2006), 60, *Ecological Economics*, 260.

<sup>120</sup> Wolfgang Sterk and Bettina Wittneben, 'Enhancing the clean development mechanism through sectoral approaches: definitions, applications and ways forward', (2006), 6 *International Environmental Agreements*, 271.

<sup>121</sup> Fry, above n54.

proposal received broad support at the conference. Following this, Decision 2 from the Conference of the Parties thirteenth session requested that the Subsidiary Body for Scientific and Technological Advice undertake a program of work on methodological issues related to this concept. The report is to be presented to the fourteenth session of the Conference of the Parties hosted in Poznan, Poland in 2008.

The Subsidiary Body for Scientific and Technological Advice started the process by inviting parties to submit their views on how to address outstanding methodological issues.<sup>122</sup> Following this, the body arranged a workshop on methodological issues. This workshop took place at the United Nations University in Tokyo, Japan in June 2008. A number of common issues were recounted, one of these addressing the creation of cost-effective methodologies and practical methodologies for assessment. The proposals suggested that existing Kyoto forest methodologies were complex and convoluted, and that REDD mechanisms must be more user-friendly.<sup>123</sup> The proposals also recommend the implementation of capacity-building programs aimed at assisting developing countries to record and account for relevant forests stocks. It was decided that a combination of remote-sensing and ground-based assessments were required to accurately measure forest stocks. It was also recognised that technology transfer would need to take place for these forest assessments to take place.

#### *ii. Regulatory framework challenges*

The inclusion of 'avoided deforestation' has remained unresolved due to the existence of party interests. Advocates for avoided deforestation base their argument around the significant contribution that deforestation plays in global emission levels (estimated to be around 10–25%<sup>124</sup>). Parties in favour of avoided deforestation use these estimates to demonstrate the need for incentives to reward parties that decrease their level of deforestation. Opponents to the 'avoided deforestation' idea acknowledge the significant contribution that deforestation plays in global emissions levels, but remain unconvinced that a sound scientific and regulatory framework can be created to deal with the complex nature of issues raised by 'avoided deforestation' negotiations. These issues include that of permanence, measurement,

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<sup>122</sup> These issues include: assessments of changes in forest cover and associated carbon stock and GHG emissions; incremental changes due to sustainable management of forests; demonstration of reduction in emissions from deforestation; estimation and demonstration of reduction in emissions from forest degradation; implications of national and subnational approaches; and options for assessing effectiveness. See: Subsidiary Body for Scientific and Technological Advice, *Report on the workshop on methodological issues relating to reducing emissions from deforestation and forest degradation in developing countries*, FCCC/SBSTA/2008/11, (2008).

<sup>123</sup> Alexander Pfaff, et al, 'The Kyoto protocol and payments for tropical forest: An interdisciplinary method for estimating carbon-offset supply and increasing the feasibility of a carbon market under the CDM', (2000), 35 (2), *Ecological Economics*, 203.

<sup>124</sup> The *Stern Review* estimates 18%. See: N Stern, *Stern Review on the Economics of Climate Change*, (2006), Office of Climate Change United Kingdom, <http://www.occ.gov.uk/activities/stern.htm> at 26 November 2008.

additionality, undermining the carbon market, sovereignty, and leakage.<sup>125</sup> To include avoided deforestation within existing Kyoto markets, the six issues above must be resolved.

As with all Kyoto forest negotiations, the issue of permanence arises. In relation to avoided deforestation and degradation, permanence concerns are warranted.<sup>126</sup> This is because ensuring the existence of forest areas in perpetuity has proven to be challenging in developing countries. This is due to a wide range of factors related to the underlying causes of deforestation and degradation. Countries may over-estimate their ability to control deforestation, and history has indicated that deforestation is a complex problem to address. There are some means that can be used to account for non-permanence; these include various insurance options, renewal or temporary crediting, and banking carbon credits as a risk buffer.<sup>127</sup>

To measure changes in forest stocks, a baseline of forest stocks must be identified. Establishing a forest baseline in developing countries requires the capacity to measure and monitor forest stocks. Countries such as Brazil and India have strong Global Information Systems/Remote Sensing capacity, but in most developing countries this type of capacity is unusual.<sup>128</sup> Appropriate technology transfer and development assistance will be required for remote sensing and ground-based accounting practices to take place in accordance with sound science and related guidelines.<sup>129</sup>

Concerns about project additionality for avoided deforestation and degradation are also warranted. A framework will need to be devised that avoids giving credits to projects that would have occurred in any event.<sup>130</sup> 'Avoided deforestation' projects must be able to demonstrate that they are contributing to long-term emission reduction schemes.

As with the inclusion of other forest activities under Kyoto, it is once again suggested that 'avoided deforestation' may act to undermine the carbon market.<sup>131</sup> This will occur in circumstances where forest credits are cheaper than other sectoral credits and, because of this cost advantage, more investment is made in forest projects. This has the potential to

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<sup>125</sup> Fry, above n54. Also see: *Review of the European Community and International Environmental Law*, 166; and M Skutsch, et al, 'Clearing the way for reducing emissions from tropical deforestation', (2007), 10, *Environmental Science and Policy*, 322, 329-330.

<sup>126</sup> Skutsch, above n125, 329.

<sup>127</sup> Fry, above n54, 172.

<sup>128</sup> Skutsch, above n125, 330.

<sup>129</sup> The Australian Government is supportive of market-based approaches aimed at addressing deforestation in developing countries. Support has been demonstrated through the provision of funds to carry out pilot projects and funds for research into policy and science development. The name of the project is the International Forest Carbon Initiative. For further information see <http://www.climatechange.gov.au/international/publications/fs-ifici.html> at 27 November 2008.

<sup>130</sup> Fry, above n54, 177.

<sup>131</sup> Fry, above n54, 172.

undermine developments in other emission-reduction sectors. However, as analysed earlier in the chapter, concerns such as this have failed to materialise in relation to clean development mechanism forest projects.<sup>132</sup> It is possible that the regulatory framework designed for avoiding deforestation may be equally complex and, therefore, this concern may also prove to be unwarranted.

There is a possibility that any Kyoto project implemented outside national boundaries could involve state sovereignty concerns.<sup>133</sup> An ‘avoided deforestation’ regimen would require parties to adopt new forest management practices; this will (to some extent) erode state sovereignty. In relation to forest reserves, the rights and responsibilities associated with this concept have proved to be contentious during all forest negotiations (but especially within the United Nations Forum on Forestry platform). However, with the introduction of markets for environmental services, state sovereignty concerns may not be as dominant as in previous international regimes. This is because parties will be economically rewarded for infringements upon their sovereignty, and involvement within these markets will be optional (not mandatory).

The concept of ‘leakage’, perhaps, presents the most formidable challenge for avoided deforestation regimes. Leakage occurs when mitigation actions in one area may result, directly or indirectly, in emission increases in another area.<sup>134</sup> In the avoided deforestation context, this is a real threat as deforestation may be displaced, and rewarding the initial avoided deforestation is pointless if the deforestation occurs in another location. Certain developing nations may prove to have superior capacity conditions for implementing Kyoto forest projects and, as such, deforestation activities may then be transferred to countries with weaker capacity – resulting in no net global gain in emission reductions.<sup>135</sup> Without adequate safeguards within the international timber market requiring the provision of sustainability grown timber, global demand for wood products will contribute to leakage concerns.

Two measures have been suggested that may contribute to resolving leakage concerns.<sup>136</sup> Firstly, as discussed above, there are demand-side measures that could be introduced that create an obligation for importers of timber products. This obligation would require that timber products be sustainably harvested. Existing schemes could be used to enforce this obligation (such as certification programs discussed in Chapter 7, and the FLEGT initiative

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<sup>132</sup> Jung, above n115, 99.

<sup>133</sup> Fry, above n54, 177.

<sup>134</sup> Fry, above n54, 173, and Jung, above n115, 206.

<sup>135</sup> P Combes Motel, R Pirard, and JL Combes, ‘A methodology to estimate impacts of domestic policies on deforestation: Compensated Successful Efforts for “avoided deforestation” (REDD)’, (2008), Ecological Economics (In Press).

<sup>136</sup> Fry, above n54, 175.

discussed in Chapter 6). Secondly, there could be development of sub-national leakage frameworks that measure forest leakage within the national context. This will require the introduction of a baseline and monitoring system. However, the introduction of a sub-national leakage framework will not prevent leakage occurring outside national boundaries. To address inter-state leakage, a global baseline and monitoring system would be needed.<sup>137</sup>

### *iii. Cap and trade model*

It has been suggested that to include a REDD type program within the existing climate regime, a new mechanism would need to be created. The Centre for International Sustainable Development Law has suggested the creation of a carbon reservoir mechanism.<sup>138</sup> The objective of this mechanism would be to financially reward any activity that permanently protects parts of the carbon stock held in forests. The model suggested by the Centre for International Sustainable Development Law involves a 'cap and trade' type approach. Under this type of system, parties are allocated credits based on the level of tropical forest and carbon storage capacity. Parties can then use these credits to meet their own international obligations, or sell these credits to other parties that will then use the credits to meet their international obligations. This type of system creates an incentive to permanently protect forest area by creating income through the sale of credits.<sup>139</sup>

### *iv. Baseline and credit model*

The proposals by Papua New Guinea and Brazil seek to include REDD initiatives through a baseline and credit scheme. The proposal by Papua New Guinea<sup>140</sup> requires the establishment of a baseline rate of deforestation (converted into carbon emissions) and the subsequent negotiation of a carbon credit for the amount it reduces deforestation rates, which can then be sold on the international carbon market.<sup>141</sup> The proposal by Brazil is similar, except it requires compensation to be paid to countries for 'avoided deforestation'. Under the Brazilian proposal, tropical forest countries that reduce their emissions, compared to a baseline, receive compensation from developed country parties that is based on the average value of carbon on

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<sup>137</sup> Jade Saunders, Johannes Ebeling and Ruth Nassbaum, *Reduced Emissions from Deforestation and Degradation: Lessons from a forest governance perspective*, ProForest, Eco Securities and Chatham House, (2008).

<sup>138</sup> S Prior and C Streck, *Submission to the COP UNFCCC in response to the call for views on the issue of avoided deforestation*, Centre for International Sustainable Development Law, (2006).

<sup>139</sup> This proposal along with many others were submitted for consideration at the 11<sup>th</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Bali in November 2007.

<sup>140</sup> Made on behalf of Costa Rica, Nicaragua and Papua New Guinea, supported by the Central African Republic, the Dominican Republic and the Solomon Islands.

<sup>141</sup> Simon Dresner, et al, *Forests and Climate Change: Global Understanding and Possible Responses*, (2006), 38.

the carbon market. This type of modelling is currently referred to ‘compensated reduction’ within international negotiations.<sup>142</sup>

*v. Critique of models*

The baseline and credit approach for REDD is not recommended by the Centre for International Sustainable Development Law.<sup>143</sup> This is due to the difficulty associated with calculating the baseline level where a standard level of deforestation must be established. There is no such thing as a standard level of deforestation that can be calculated upon a year-to-year basis. A number of other issues are also identified as being problematic with the baseline approach:<sup>144</sup>

- The occurrence of unplanned and illegal logging may be excluded from baseline calculations.
- In periods where actual deforestation is less than the calculated baseline level, a reward is given where no additionality factor has been met (i.e. no change from business as usual).
- In a period of increased deforestation, the baseline would need to be modified to recognise this. This may encourage increased deforestation activities before the start of the scheme.
- If an average baseline were calculable, this would not actually represent future events.

There are difficulties in establishing either a cap and trade system or baseline credit approach for REDD activities. Both proposals require improved capacity to monitor forest conditions to ensure compliance with the schemes. The necessary regulatory frameworks for REDD may prove to be too cumbersome and bureaucratic for practical uptake. Parties may decide not to participate in the scheme on this basis. Conversely, until the carbon market can compete with the other financial payments generated from the conversion of forest land to other uses (i.e. to change to agriculture or commercial logging of area), the carbon market provides no real incentive to avoid on-going deforestation.<sup>145</sup>

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<sup>142</sup> Skutsch et al, above n125.

<sup>143</sup> Prior, above n138.

<sup>144</sup> Ibid.

<sup>145</sup> A study carried out in Cameroon indicates that current carbon prices could be more profitable to preserve primary forest rather than logging it to grow crops. Valentin Bellassen and Vincent Gitz, ‘Reducing Emissions from Deforestation and Degradation in Cameroon – Assessing costs and benefits’, (2008), *Ecological Economics*, 336, 341.

#### *vi. REDD developments at Copenhagen*

The Subsidiary Body for Scientific and Technological Advice (SBSTA) produced a draft decision on approaches to stimulate REDD action.<sup>146</sup> This draft instrument was adopted by the COP at the Copenhagen negotiations. Further support at Copenhagen for a REDD instrument is found in Article 6 of the Copenhagen Accord:

“We recognise the crucial role of reducing emissions from deforestation and forest degradation and the need to enhance removals of greenhouse gas emissions by forests and agree on the need to provide positive incentives to such action through the immediate establishment of a mechanism including REDD+ to enable the mobilisation of financial resources from developing countries”.

A further encouraging development was a pledge of US\$3.5 billion by Australia, France, Japan, Norway, the United Kingdom, and the United States to be made available as public finance to assist the REDD implementation in developing countries.<sup>147</sup> The UN-REDD Program has estimated that a US\$25 billion investment would be required to achieve a 25% reduction in annual global deforestation by 2015.<sup>148</sup> It is envisaged that the implementation of a REDD mechanism will take place on a phased approach. Phase one involves an initial readiness phase; phase two involves policy implementation and demonstration activities; and phase three is a full implementation stage.<sup>149</sup> Currently, phase two is being implemented with a number of trial REDD readiness demonstration programs taking place in Bolivia, Democratic Republic of Congo, Indonesia, Panama, Papua New Guinea, Paraguay, United Republic of Tanzania, Vietnam and Zambia.<sup>150</sup>

The SBSTA instrument provides some guidance on how parties should prepare for the introduction of a REDD mechanism. Parties are being encouraged to:

- identify drivers and activities within the country that result in reduced emissions, increases in removals, and the stabilisation of carbon stocks in the forestry sector;<sup>151</sup>

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<sup>146</sup> Subsidiary Body for Scientific and Technological Advice, *Reducing Emissions from Deforestation in developing countries: approaches to stimulate action*, FCCC/SBSTA/2009/L.9. This document was released at the 30<sup>th</sup> session of SBSTA held in Bonn, Germany 1-10 June 2009.

<sup>147</sup> Yemi Katere, *REDD in Copenhagen*, (2009), UN-REDD Program, [http://www.un-redd.org/Newsletter5\\_Introduction/tabid/2890/language/en-US/Default.aspx](http://www.un-redd.org/Newsletter5_Introduction/tabid/2890/language/en-US/Default.aspx), 2 February 2010.

<sup>148</sup> Tiina Vahenen, 'Introduction to REDD', (Paper Presented at the World Forestry Congress, Argentina, 18-23 October, 2009).

<sup>149</sup> Rosemary Lyster, 'The New Frontier of Climate Law: Reducing Emissions from Deforestation and Degradation' *Environmental and Planning Law Journal*, Vol. 26, No. 6, 417, 425.

<sup>150</sup> UN REDD Programme, *Supporting countries to get ready for REDD*, (2009), UN REDD Programme, <http://www.un-redd.org/Home/tabid/565/language/en-US/Default.aspx> 2 February 2010.

<sup>151</sup> *Ibid*, 1 (a).



- establish robust and transparent national forest monitoring systems (that use a combination of remote sensing and ground-based forest carbon inventory approaches, and whose results are open to independent review).<sup>152</sup>

#### **4. Implementation of Forest Initiatives within the International Climate Change Regime**

##### ***A. Implementation of forest clean development mechanism project***

One clean-development mechanism forestry project has been registered to date, and that is Project 0547: Facilitating Reforestation for Guangxi Watershed Management in Pearl River Basin, China. This forest project will continue for 30 years. Its objective is to sequester carbon, enhance biodiversity, improve soil and water erosion, and generate income for local communities. The Product Design Document Form for the project is freely available on the clean development mechanism website<sup>153</sup>. It contains the following:

- General description of the proposed project activity
- Application of baseline methodology
- Application of a monitoring methodology and plan
- Estimation the net anthropogenic greenhouse gas removals by sinks
- Environmental impacts of proposed project
- Socio-economic impacts of proposed project
- Stakeholders' comments

If a large number of forest projects were to be established under the Kyoto Protocol guidelines, there would be a significant spread of global forest cover. The afforestation and reforestation guidelines encourage a positive land-use change, and require the establishment, or re-establishment, of a forest. If countries were rewarded financially for avoiding future deforestation and future land degradation within the climate regime, this would also lead to a growth in the number of protected areas. So the climate change regime has the ability to:

- a. significantly increase the area of new forest lands (under the Kyoto Protocol); and
- b. significantly increase the amount of forest areas under legal protection (under REDD-like initiatives).

Conceptually, sustainable forest management involves the legal recognition of all forest values. The storage of carbon within forests is a forest value. The practicalities associated with legal

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<sup>152</sup> Ibid, 1 (c).

<sup>153</sup> United Nations Framework Convention on Climate Change: Clean Development Mechanism, *Facilitating Reforestation for Guangxi Watershed Management in Pearl River Basin*, (2006), <http://cdm.unfccc.int/Projects/DB/TUEV-SUED1154534875.41/> at 13 February 2008.

recognition and protection, for this particular forest value, have proven to be complex. The biggest hurdle for forestry projects within the climate change regime relates to the non-permanent sequestration of carbon in forest projects, and leakage related considerations. Permanence and leakage concerns may prevent investment in forestry projects and, ultimately, may make forest projects less attractive to the participants in the carbon markets.<sup>154</sup>

“Given these issues and returning to the bigger picture (that is, that carbon uptake in sinks only buys time for emissions reductions, which then nevertheless have to occur at a later stage) maybe forestry projects should not so much be viewed in the context of carbon storage but rather in a more holistic way. Especially when it comes to developing countries, a good forestry project is an important contribution to rural development and for the local environment, thus contributing to the Millennium Development Goal to eradicate extreme poverty, the aims of the Convention of Biological Diversity and, last but not least, the ultimate objective of the UNFCCC.”<sup>155</sup>

If the climate change regimen were to introduce new obligations for forests, this would improve the condition of the world’s forests. For example, a binding obligation could be introduced that required parties to increase their forest cover by a certain percentage over time. Failure to comply with this new obligation could lead to an economic sanction. A similar obligation could be introduced that required parties to increase the percentage of protected forest areas over a particular time span, and failure to comply could also involve an economic sanction. The problem with this suggestion is that parties would want to use these activities in their accounting practices, and this again raises the permanence issues and others discussed above.

If a new obligation were introduced to increase forest cover and legal protection of forest areas – and this obligation excluded parties from using these activities in their accounting practices – such an obligation might be successful in lifting the standard of the world’s forests. Getting parties to agree to this type of obligation would be fraught with difficulty, as evidenced by the history of the international forest regime.

### ***B. Australia’s implementation of Kyoto forest modalities***

As a federal nation, the implementation of a climate change regime will involve the participation of federal, state and local governments. The obligation that binds Australia to implement a program of action aimed at reducing greenhouse gas emissions stems from international law. Under the Australian Constitution, the Federal Government is given power

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<sup>154</sup> For a discussion on investment in land use, land-use change and forestry projects, see: B Bosquet, ‘Specific Features of Land Use, Land-Use Change and Forestry Transactions’, in D Freeston and C Stek (eds), *Legal Aspects of Implementing the Kyoto Protocol Mechanisms: Making Kyoto Work*, (2005), 282-283.

<sup>155</sup> Graichen, above n 71, 18.

to regulate over “external affairs”.<sup>156</sup> The implementation of international treaties and conventions is considered a matter of external affairs.<sup>157</sup> Therefore, the Federal Government is responsible for enacting a climate change mitigation and adaptation program.

The change of federal government in 2007 resulted in a notably different approach for Australia to the Kyoto Protocol. Australia finally ratified the Protocol at the thirteenth session of the COP in December 2007. Failure by the previous government to adequately implement a national climate change mitigation and adaptation program has meant that the Australian carbon markets and opportunities are undeveloped compared with international counterparts. The current government must now ‘play catch-up’ with the proposed implementation of a federal regime during its next political term.

### ***C. Current national regulatory approaches to forestry***

At present, there is no obligation on the forestry sector to account for either sinks or sources of carbon resulting from forest management and use of forest areas.<sup>158</sup> Interested stakeholders may, presently, either invest in or create forest plantations – which, in the future, may become eligible under the introduced regime. From a legal perspective, the biggest development in relation to forests and carbon has been the development of property laws to recognise ‘carbon sequestration rights’. This development is significant, because it allows for separate ownership of land, trees and carbon rights associated with terrestrial-sequestered carbon.

Carbon sequestration rights are described as class of property rights, created under state law, that recognise the rights of ownership to carbon sequestered in vegetation on a specified area of land. These rights do not give the owner a right to emit a defined tonnage of CO<sub>2</sub>.<sup>159</sup> The individual states have created different mechanisms for recognising these rights<sup>160</sup>:

- Queensland has enacted the *Forestry and Land Title Act 2001*, which amends the *Forestry Act 1959* and allows for agreements to be made about “natural resource products”.
- New South Wales introduced the *Carbon Rights Legislation Amendment Act 1998*; this amends the *Conveyancing Act 1919* to allow for the creation of ownership of carbon sequestration rights.

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<sup>156</sup> Commonwealth of Australia Constitution Act (Cth) s51 (xxix)

<sup>157</sup> Douglas Fisher, *Australian Environmental Law*, (2003), 92.

<sup>158</sup> For an analysis that compares the New Zealand and Australian approaches to climate change and forestry, see: Milner-White, above n 96.

<sup>159</sup> Megan Scott, (ed), *Planning Forest Sink Projects: A guide to Legal, Taxation and Contractual Issues*, Department of the Environment and Heritage, Australian Greenhouse Office, Australian Government (2005).

<sup>160</sup> *Ibid* at 13.

- Victoria amended the *Forestry Rights Act 1996* – through the *Forestry Rights (Amendment) Act 2001* – to provide for rights to the commercial exploitation of carbon sequestered by trees.
- Western Australia introduced the *Carbon Rights Act 2003*, which provides a statutory framework for carbon rights –which are then eligible for registration on the land title registry.
- South Australia enacted the *Forest Property Act 2000* to specifically deal with the carbon absorption properties of trees, and the commercial exploration of these properties.
- Tasmania allows for the registration of specified forestry rights (including rights to carbon sequestration under the *Forestry Rights Registration Act 1990*).
- Australian Capital Territory and Northern Territory have no specific legislation, so any rights will be transferred as a personal (not a proprietary) right through contract law.

#### *i. Future national regulatory approaches to forestry*

The Federal Government has released a green paper concerning the introduction of a ‘Carbon Pollution Reduction Scheme’.<sup>161</sup> The policy of the scheme is based on three pillars: firstly, reducing Australia’s greenhouse gas emissions (the aim is for 60% reduction of 2000 levels by 2050); secondly, adapting to climate that is unavoidable; and, thirdly, helping to shape a global solution that both protects the planet and advances Australia’s long-term interests.

Part of the scheme will see the introduction of a cap and trade emissions trading regime. The green paper envisages that the cap and trade emissions trading regime will be in operation by 2010. The cap part of the scheme means the government will introduce a capped quota restricting the amount of greenhouse gas in the atmosphere. The purpose of the cap is to ensure that there is a reduction in the national level of greenhouse gas pollution. Significant emitters of greenhouse gases will have to acquire a ‘carbon pollution permit’ for every tonne of greenhouse gas that they emit. The trade part of the scheme refers to the part of the scheme that will allow participants to trade permits as required in accordance with their emission levels. Trading creates a market for these credits, hence a ‘carbon economy’.

The forest industry will be given the opportunity to participate in the future cap and trade emissions trading regime. The green paper examines forest sinks separately from activities that result in forests acting as sources of greenhouses gases. At this stage, involvement of the forestry industry will be on a voluntary basis. Only stakeholders with something to gain from the process are anticipated to participate.

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<sup>161</sup> Department of Climate Change, *Carbon Pollution Reduction Scheme Green Paper*, (2008), Australian Government <http://www.climatechange.gov.au/greenpaper/index.html> at 28 November 2008.

Forest activities that act as sources of greenhouse gases (i.e. deforestation) will not be included within the scheme. This is because emissions from deforestation are difficult to track, monitor and report. This, in turn, is because the areas cleared range in size from one hectare to thousands of hectares; unlike emissions from industrial facilities, those from deforestation are difficult to predict. Deforestation currently accounts for around 11% of Australia's emissions. The government plans to lower emissions from this source by enacting legislative regimes prohibiting or limiting the amount of deforestation that occurs within Australia.

Forest sink activities are those forest activities that result in the absorption of greenhouse gases. Reforestation is a key sink activity identified by the green paper. Reforestation can occur in a number of ways. Some methods of reforestation will be more fruitful in terms of offset generation than other reforestation activities. A number of reforestation activities – and the incentives and disincentives of these activities in relation to the scheme – are identified by the green paper:<sup>162</sup>

- Forests grown for non-harvest purposes, which would generate permits – these permits would only have to be surrendered in the event of net emissions (i.e. forest land converted to another use).
- Plantations re-established over time, which would generate permits during regeneration – these permits would have to be surrendered upon harvesting. This will increase reporting obligations<sup>163</sup> for managers and, as such, may act as a disincentive for scheme participation.
- Plantations not re-established, which would involve risks for stakeholders – the value of the permits may vary between the time the stakeholder receives the permit (i.e. time of forest generation) and the time when stakeholder surrenders the permits at forest harvest. It is anticipated that these credits will increase in price over time and, for this reason, involvement in the scheme for this type of activity is risky.

## 5. Conclusion

Forests are regulated in a number of ways under the climate change regime. The accounting and reporting methodologies and policies are complex in nature, reflecting the complexity of what they are attempting to measure. For the forest accounting practices to be more widely used by the parties, the methodologies should be revisited. Ideally, in the future, one standard policy instrument would be created concerning forest sink and source values. This single policy

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<sup>162</sup> Department of Climate Change, *Carbon Pollution Reduction Scheme Green Paper*, (2008) Australian Government <http://www.climatechange.gov.au/greenpaper/index.html> at 28 November 2008.

<sup>163</sup> The reporting requirements and modalities have not yet been decided. It is not clear whether reporting would be required annually or only at the commencement of international commitment periods. See: *Ibid*.

instrument would remove the different formulas currently used within the regime to account for different forest activities. The climate change regime has much stronger political support than the United Nations Forum on Forestry. It also has the ability to deliver finance to implement forest projects. For these reasons, it is anticipated that it will become a dominant player in setting the international forest policy agenda. The current tiered membership within the Kyoto Protocol is a governance feature that should be retained. As this thesis suggests, the principles of common but differentiated responsibility, the polluter pays principle, and the theory of environmental justice, all support heavier obligations for those parties responsible, and with the capacity, to respond to environmental challenges.

## CHAPTER SEVEN: Regulation of Forest Resources by the World Bank

### 1. Introduction

#### **A. World Bank background**

This chapter focuses on the role the World Bank Group in forest policy, strategy and finance. The World Bank Group and the International Monetary Fund emerged from negotiations conducted in Bretton Woods, New Hampshire, USA in 1944. These global financial institutions were created with the aim of ensuring a sound international economy after World War II. The World Bank Group is an independent specialised agency of the United Nations and works closely with the International Monetary Fund. The World Bank Group operates under the umbrella of the Economic and Social Council of the United Nations.<sup>1</sup>

The founding instrument of the World Bank is the *IBRD Articles of Agreement*. Article 1 provides that the purpose of the Bank is to:

- assist in the reconstruction and development of territories destroyed or disrupted by war;
- promote foreign investment by way of guarantee or loan;
- promote balanced growth of international trade; and
- assist in bringing about a smooth transition from a wartime to a peacetime economy.<sup>2</sup>

This purpose is implemented through the operation of the five separate institutional bodies that make up the World Bank Group. Further examination of the *IBRD Articles of Agreement* provides guidance on the banks institutional and organisational structure. Article 11 deals with membership and capital in the bank; Article 111 contains general provisions relating to loans and guarantees; Article IV deal with operations; Article V organisation and management; Article VI with withdrawal and suspension of membership; and Article VII with status, immunities and privileges.

The Bank first became involved in the forestry sector in 1949 when it financed forest operations in Finland and the former Yugoslavia.<sup>3</sup> These projects were financed through the provisions of loans and guarantees. Article III of the *IBRD Articles of Agreement* regulates the

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<sup>1</sup> World Bank, *A guide to the World Bank* (2<sup>nd</sup> ed, 2007) 43.

<sup>2</sup> World Bank Group, *International Bank for Reconstruction and Development Articles of Agreement, as amended effective February 16, 1989*, (1989), The World Bank Group, <http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/0,,contentMDK:20049557~menuPK:58863~pagePK:43912~piPK:44037~theSitePK:29708,00.html> at 1 September 2008.

<sup>3</sup> World Bank, *Sustaining Forests: A development Strategy*, (2004), 19.

authority for these activities. Early forest projects generally financed the purchase of timber processing equipment. Gradually, the Bank's role in financing forest projects evolved from one that focused on timber extraction to trial operations in social forest programs and agroforestry – and, then, towards an approach that favoured conservation of remaining forest areas.<sup>4</sup> This evolution was the result of changing forest values within society generally, in combination with pressure from environmental NGOs (which influenced the Bank's approach to forestry). The Bank does not focus its investments upon particular forest biomes. Rather, current forest policy takes a holistic approach, funding forest programs where there will be environmental, social and economic improvements for the beneficiaries of the program. These holistic forestry programs are restricted in that they are only implemented in developing countries.

### ***B. The World Bank's role in forest-related initiatives***

The overarching policy objective of World Bank programs is a reduction in global levels of poverty.<sup>5</sup> Empirical research indicates a strong correlation between areas of high forest coverage and the people living in these areas experiencing high levels of poverty.<sup>6</sup> This link, along with the Bank's interest in investing in socially beneficial projects, has seen the Bank invest in a large number of forest projects aimed at holistically addressing environmental and livelihood issues. The research does not indicate that areas with high forest coverage lead to increased poverty. Rather, it indicates there is a high occurrence of marginalised groups living in densely forested areas, and that these are heavily dependent upon forest ecosystem services for their daily survival.<sup>7</sup>

Four reasons have been identified to explain the relationship that exists between high forest coverage and high levels of poverty.<sup>8</sup> Firstly, the evolution from hunting and gathering to swidden cultivation to permanent agriculture has improved the living standards of many throughout the world. In some forest areas, this evolution has not taken place and, accordingly, the living standards of these people have remained the same. Secondly, forest communities often lack a voice or representation at the national level, and this has been identified as an indicator of poverty. This lack of power is associated with the isolation of these people from national political and economic structures. Thirdly, forests areas attract migrants,

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<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> William D Sunderlin, Sonya Dewi and Atie Puntodewo, 'Poverty and forests: Multi-country analysis of spatial association and proposed policy solutions', *Occasional Paper No 47*, Centre for International Forestry Research, (2007). Also see the World Bank report: Kenneth Chomitz, 'At Loggerheads? Agricultural Expansion, Poverty Reduction, and Environment in the Tropical Forests', The International Bank for Reconstruction and Development/ The World Bank, (2007).

<sup>7</sup> Ibid at 1-2.

<sup>8</sup> Sunderlin et al, above n6, 20- 21.



as they are not heavily patrolled by governments. In some circumstances, forests serve as a refuge for people fleeing persecution, conflict and war. And fourthly, forest areas tend to be less densely populated than non-forest areas and, as such, will attract less public and private investment compared with densely populated areas.

Forests are thought to provide a 'safety net' to forest dwellers and forest communities by providing building materials, foodstuffs and other goods during times of hardship.<sup>9</sup> Deforestation and forest degradation can have serious negative consequences for forest dwellers and communities through the loss of essential services. Forests provide numerous services to humans, directly and indirectly. They directly provide timber and material for housing, firewood for heating and cooking, food, medicine, fodder for livestock, and a variety of sources of income from the sale of forest products. They also act as purifiers of water, serve as buffers to extreme changes in temperature, maintain soil health and integrity, and absorb carbon dioxide – all of which indirectly affect the quality of life experienced by forest communities.<sup>10</sup> Policies have attempted to recognise these linkages between poverty and forests as a driver for the implementation of integrated development strategies dealing holistically with existing environmental, social and economic challenges.

At the United Nations Millennium General Assembly hosted in New York in 2000, the Millennium Development Goals were created. These goals are the shared vision of a number of public intergovernmental institutions including the World Bank, the United Nations Development Programme and the United Nations Environment Programme among many others.<sup>11</sup> At the goals inception, it was envisaged that they would be implemented by 2015. The Millennium Development goals are to:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases

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<sup>9</sup> Arild Angelsen, Sven Wunder, 'Exploring the Forest-Poverty Link: Key Concepts, Issues and Research Implications', *Occasional Paper No. 40*, Centre for International Forestry Research, (2003). See also: Paul Vedeld, Arild Angelsen, Jan Bojo, Espens Sjaastad, Gertrude Kobugabe Berg, 'Forest Environmental Incomes and the Rural Poor', (2007), *Forest Policy and Economics*, 869, 871 – which distinguishes between three different function of forest income in rural livelihoods: acting as safety nets, support of current consumption and a pathway out of poverty.

<sup>10</sup> United Nations Development Programme, 'Forest Management to Support Sustainable Livelihoods: Framework for the UNDP Programme on Forests', Programme on Forests / United Nations Development Programme, 1999, iv.

<sup>11</sup> For a complete list of all public intergovernmental institutions involved please refer to all bodies listed <http://www.un.org/millenniumgoals/>.

7. Ensure environmental sustainability
8. Develop a global partnership for development

Forest policies and strategies are seen as a mechanism that can make a direct contribution towards implementing Goal 1 (eradicating extreme poverty) and Goal 7 (implementing environmental sustainability). World Bank statistics suggest that forest resources directly contribute to the livelihoods of 90% of the 1.2 billion people living in extreme poverty<sup>12</sup>. Sustainably managed forest areas provide forest inhabitants with access to essential forest services and, in some circumstances, may allow forest communities to engage in income-generating forest activities.<sup>13</sup> Forests are also central to maintaining terrestrial biological diversity. Nearly 90% of all terrestrial biodiversity is found within forest areas, with a disproportionate share found in the forests of developing nations.<sup>14</sup> The World Bank has recognised the role of forests in alleviating poverty and in ensuring environmental sustainability by creating a guidance document entitled *Sustaining Forests: A Development Strategy*. This strategy provides a framework for the Bank to assess applications when they involve forest areas, or when they will affect forest areas. The strategy contains three key elements:<sup>15</sup>

1. Harnessing the potential of forests to reduce poverty –
  - Strengthening the rights of people, especially marginalised forest groups and fostering their participation in forest management.
  - Promoting sustainable forestry, community forestry and agro forestry.
2. Integrating forests in sustainable economic development –
  - Improving forest governance, and introducing legal and institutional reforms.
  - Encouraging investments that catalyse production of forest products, including environmental services.
3. Protecting vital local and global environmental services and values –
  - Establishing protected areas.
  - Improving forest management in other areas.

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<sup>12</sup> The International Bank for Reconstruction and Development, 'Sustaining Forests: A Development Strategy', The World Bank, (2004), 1

<sup>13</sup> See the following for a discussion about forest income: Paul Vedeld, Arild Angelsen, Jan Bojo, Espens Sjaastad, Gertrude Kobugabe Berg, 'Forest Environmental Incomes and the Rural Poor', (2007), *Forest Policy and Economics*, 869. This study finds that forest-related products supply 22% of stakeholders' income in the populations sampled.

<sup>14</sup> The International Bank for Reconstruction and Development, 'Sustaining Forests: A Development Strategy', The World Bank, (2004), 1.

<sup>15</sup> The International Bank for Reconstruction and Development, 'Sustaining Forests: A Development Strategy', The World Bank, (2004), 2

- Developing markets and finance for international public goods such as biodiversity and carbon sequestration, and helping governments create national markets for environmental services from forests.
- Addressing cross-sector links that affect environmental values.

The provision of Bank finance and support for forest projects can only be approved where it is aligned with one of these key elements. On a strict interpretation, this means that forest projects will only be approved if they attempt to address forest and poverty conditions holistically, or address the governance of member forest frameworks, or create further protected areas or create markets for environmental services. This still allows for a broad range of activities to be carried out within forest areas with Bank support. The underlying causes of poverty and forest degradation and/or deforestation must be identified at individual country level. This way, projects are tailored to address individual country challenges and opportunities in relation to poverty and forestry.

## **2. The Institutional Structure of the World Bank**

### ***A. The World Bank Group institutions***

The World Bank Group is comprised of five bodies that operate collectively to implement the overarching goal of poverty reduction:

1. The International Bank for Reconstruction and Development
2. The International Development Association
3. The International Finance Corporation
4. The Multilateral Investment Guarantee Agency
5. The International Centre for Settlement of Investment Disputes

The term ‘World Bank Group’ refers to all five institutions, while the term ‘World Bank’ refers specifically to the International Bank for Reconstruction and Development and the International Development Association. Each of these bodies plays a distinct role in the mission to fight poverty and improve living standards for peoples in developing countries.

The International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), collectively the World Bank, support a range of initiatives aimed at reducing poverty and improving living standards in developing countries. This is actioned through the provision of loans, guarantees, policy advice and technical assistance.<sup>16</sup>

These two bodies share the same employees and headquarters, and use the same standards when determining a project’s approval. The IBRD is responsible for providing assistance to middle-income and creditworthy poorer countries, while the IDA focuses exclusively on the

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<sup>16</sup> World Bank, above n1, 11.

world's poorest countries.<sup>17</sup> The IDA provides credits and grants on more lenient borrowing terms than the other World Bank Group Institutions to assist the poorest countries to reduce poverty.<sup>18</sup>

The International Finance Corporation (IFC) is responsible for promoting private enterprise in developing countries. While the World Bank can only lend to governments of member countries, the IFC is able to lend money directly to private business interests. To be eligible for IFC funding, the project must be profitable for investors, must benefit the economy of the host country, and must comply with environmental and social standards.<sup>19</sup>

The Multilateral Investment Guarantee Agency encourages foreign investment in developing countries by providing political risk insurance for foreign investment in developing countries, technical assistance, and dispute mediation services.<sup>20</sup> The Agency seeks to build confidence in private enterprises to encourage investment in infrastructure development, investment in conflict-affected countries, investment between developing countries, and investment in frontier markets (high-risk or low-income country markets). The Agency provides investment confidence, due to its position within the World Bank Group. The World Bank Group uses its position to deter activities that may adversely affect foreign investments.<sup>21</sup>

The International Centre for Settlement of Investment Disputes (ICSID) encourages foreign investment by providing international facilities for the conciliation and arbitration of investment disputes. This is believed to foster an atmosphere of mutual confidence between states and foreign investors. The ICSID was established under the *Convention on the Settlement of Investment Disputes between States and Nationals of Other States* and came into force in 1966. Parties must consent in writing to be bound by decisions of the Centre<sup>22</sup> and, once this has occurred, they will be bound by any orders of the Centre.

The five institutions of the World Bank Group are owned by their member countries. To obtain membership to the IBRD, states must first join the International Monetary Fund. Membership to the IDA, the IFC, and the Multilateral Investment Guarantee Agency is contingent upon

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<sup>17</sup> For further information on the classification between middle income countries and poor countries see World Bank, above n2, 15-19. In 2005, countries that had an income of less than \$1025 per capita were classified as poor countries and were eligible to apply to the International Development Association.

<sup>18</sup> Credits are loans at zero interest – with a 10-year grace period before repayment of the principal – begins at maturities of 20, 34 or 40 years. This type of lending is referred to as concessional lending. Further information available: World Bank, above n2, 17.

<sup>19</sup> World Bank, above n2, 22.

<sup>20</sup> World Bank, above n2, 23.

<sup>21</sup> World Bank, above n2, 25.

<sup>22</sup> See Article 25 of the Convention

obtaining membership to the IBRD.<sup>23</sup> To become a member of any of these institutions, states must buy shares in the institution – a process known as capital subscriptions. Figures from April 2007 record membership levels as:<sup>24</sup>

- 185 members in the International Bank for Reconstruction and Development
- 166 members in the International Development Association
- 179 members in the International Finance Corporation
- 171 members of the Multilateral Investment Guarantee Agency
- 143 members of the International Centre for Settlement of Investment Disputes

Membership of other United Nations' institutions is generally not dependent upon capital subscriptions. This membership arrangement is unique to global financial institutions. Voting power is determined according to the value of the capital subscriptions held by the country member. Thus, members with the highest levels of capital subscriptions receive the highest percentage of 'weighted votes' and acquire greater control over Bank operations.<sup>25</sup> In the IBRD, the following five countries retain the highest capital subscriptions: the United States of America, 16.39%; Japan, 7.87%; Germany, 4.49%; France, 4.3%; and the United Kingdom, 4.3%.<sup>26</sup>

This voting arrangement is not consistent with the principles of good governance, because good governance requires transparency, accountability, efficiency, fairness, participation and ownership.<sup>27</sup> Originally, all members were allocated a quota of 250 'basic votes'. This allocation was made to reinforce the Bank's role as an intergovernmental public institution.<sup>28</sup> In 1946, basic votes accounted for 11.3% of the total vote while, 60 years later, basic votes account for only 3% of the total vote.<sup>29</sup>

Initially, members of the Bank had two interests in the institution: firstly, every member had an interest in economic growth and stability; secondly, major contributors had an interest in

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<sup>23</sup> World Bank Group, *International Bank for Reconstruction and Development Articles of Agreement, as amended effective February 16, 1989*, (1989) The World Bank Group  
<http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/0,,contentMDK:20049557~menuPK:58863~pagePK:43912~piPK:44037~theSitePK:29708,00.html> at 1 September 2008, Article 11

<sup>24</sup> World Bank, above n1, 94.

<sup>25</sup> Although voting in the World Bank is based on consensus, and not the tallying of individual votes, informally, the percentage of votes held affects a countries' political standing within the Bank structure. See Ngaire Woods, 'The Challenge of Good Governance for the IMF and the World Bank Themselves', (2000), 28, *World Development*, 823, 829

<sup>26</sup> World Bank, above n1, 9.

<sup>27</sup> Ngaire Woods, 'The Challenge of Good Governance for the IMF and the World Bank Themselves', (2000), 28, *World Development*, 823.

<sup>28</sup> W Gianaris, 'Weighted voting in the International Monetary Fund and the World Bank', (1991), 14, *Fordham International Law Journal*, 910

<sup>29</sup> Woods, above n27, 828.

ensuring the institution's resources were properly used. However, these interests were based on the Bank's original purpose (to facilitate post war reconstruction in Europe and further development in other countries). Presently, the Bank's operations occur almost exclusively in developing countries and in transitional economies. The Bank provides resources to these members subject to the implementation of its policy and guidelines, and this reduces the sovereignty rights of the beneficiary government. Additionally, developing country governments and in transitional economy governments generally hold fewer voting rights at the Bank level, meaning that funding in their countries is dependent upon policies created by the most powerful stakeholders at the World Bank. Voting power based on the percentage of shares owned is characteristic of private enterprise proceedings. The World Bank, as a public intergovernmental institution, should ensure that all participants within the system are given more equitable voting rights to address governance concerns.

Members are also classified at low-income members, middle-income members and high-income members. This classification determines the relevant Bank institution for the member country to deal with. Members of the World Bank Group are further classified as either donors to the Bank or borrowers from the Bank. Donors are member countries that make contributions specifically to the IDA, while borrowers are those that borrow from the IDA and/or the IBRD.<sup>30</sup>

### ***B. Partnerships with other intergovernmental forest institutions***

The World Bank has formed a number of strategic partnerships to deliver better global forest outcomes. Global forest institutions acting independently have failed to deliver significant changes in the global regulation and management of forest resources. Working collaboratively allows institutions to pool resources and expertise, which should lead to improved outcomes. The World Bank has recognised the complex matrix of issues associated with forest regulation, and has formed strategic partnerships to improve the chances of implementing its forest policy.<sup>31</sup> Three forest partnerships have been formed: one with an international NGO (the World Wide Fund for Nature), one with an intergovernmental institution (the Forest Law Enforcement and Governance and Trade Scheme), and one with a global analytical facility (the Program on Forests).

Within these partnership arrangements, the World Bank and each partner institution work together to address a mutual thematic area of forest regulation. The World Wide Fund for Nature and World Bank Alliance works on increasing the size of protected areas and increasing

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<sup>30</sup> World Bank, above n1, 96.

<sup>31</sup> Ibid, 84.

the percentage of areas governed by independent certification schemes. The Forest Law and Governance Trade Scheme works on addressing issues related to combating the illegal timber market and corruption within producer timber countries. The Programme on Forests carries out analytic work that aims to identify barriers to implementation and tools for enhanced implementation of forest policies.



*i. World Wide Fund for Nature and World Bank alliance*

The World Wide Fund for nature and the World Bank formed the Global Forest Alliance in 1998. The Alliance undertook a unique approach by creating three quantitative global goals for forest conservation and management. This bold step can be contrasted with many other intergovernmental forest initiatives where generic aspirations are provided without reference to qualitative methodologies outlining the implementation of these aspirations. The Alliance set three targets to significantly reduce the rate of loss and degradation of all forest types:<sup>32</sup>

1. Creating 50 million hectares of new forest protected areas by 2005
2. Ensuring that 50 million hectares of existing highly threatened protected areas are secured under effective management
3. Ensuring 200 million hectares of production forests are bought under independently certified sustainable management.

The Alliance achieved the following outcomes by the end of 2005:

- Target one was met (in fact, the original target was exceeded with the creation of 55 million hectares of new forest protected areas).

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<sup>32</sup> James Leape and Paul Wolfowitz, *WWF/World Bank Global Forest Alliance: Alliance Annual Report (2005)*.

- Target two was not met (with only 40 million hectares of forests being secured under effective management, a shortfall of 10 million hectares on the original goal).
- Target three fell well short of the original goal (with only 25 million hectares of forest bought under independent certification programs).

The Alliance was the first international partnership to set global forest targets and to report back on the implementation of these targets (thus increasing its accountability). Overall, it can be concluded that the Alliance produced an example of successful engagement between a public international institution and a non-governmental organisation while also achieving some promising results.

A number of lessons can be drawn from this exercise:

1. From a governance perspective, the setting of targets and reporting back on the success rate of these targets increases not only the overall accountability of the group, but also the transparency of the operations. This is a crucial element of environmental regulation that is missing from the majority of intergovernmental forest initiatives. Even though not all the targets were met in this instance, the setting of the targets and the publication of the results led to outcomes and lessons that otherwise may not have occurred.
2. The partnering of the World Bank with an NGO allowed for the pooling of resources and expertise, and led to improved communication between the two groups. Literature in the area is generally favourable to the inclusion of NGOs in environmental norm-setting and implementation.<sup>33</sup> It is believed that NGOs can: assist with representing the views of wide range of stakeholders; operate as effective monitors of governments, private and international institutions; provide technical assistance in some instances; and offer experience in disseminating information quickly to large numbers of people. A major challenge for the current international forestry framework is the effective engagement, communication and improved interaction between various forestry institutions. It has been suggested that the most valuable contribution of partnerships for forest biodiversity conservation has been filling the gap when governments were neither willing nor able to regulate.<sup>34</sup> On the surface, institutional engagement exists among forestry institutions. All major forest institutions are

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<sup>33</sup> Dan Tarlock, 'The Role of Non-Governmental Organizations in the Development of International Environmental Law', 68, (1992-1993), *Chicago Kent Law Review*, 61; Saladin Al Jurf, 'Participatory Development and NGOs: A look at the World Bank', 9, *Translational Law and Contemporary Problems*, 175; Erik Bluemel, 'Overcoming NGO accountability concerns in international governance', 31, (2005-2006), *Brook Journal of International Law*, 139; and Anja Gerdung, 'Global Environmental Governance and the Role of Civil Society Groups', 8, (2004), *New Zealand Journal of Environmental Law*, 55.

<sup>34</sup> Ingrid Visseren-Hamakers, Peter Glasbergen, 'Partnerships in forest governance', 17, (2007), *Global Environmental Change*, 408, 417.



given participation and lobbying rights during negotiations that amend or create new forest instruments. They are also given rights to participate and engage at the annual meetings of each other's proceedings. There is, however, a lack of coordination for action among these groups. Apart from 'motherhood' statements (urging increased integration and interaction), little engagement occurs in practice. The alliance between the World Bank and World Fund for Nature is a practical example of policy integration and implementation of seemingly different institutions. Given their differences, nevertheless, they were able to identify common interests and formulate a plan for action that addressed the forest priorities of both parties.

3. The partnership provided valuable lessons for future implementation of sustainable forest management. In relation to the third target (increasing the level of forests under independently verified certification operations), the Alliance identified a number of barriers that exist to the adoption of certification programs. During the implementation of this goal, it was realised that certification is dependent upon a robust, accountable and transparent domestic regulatory regime. Therefore, before certification can take place, a number of initiatives need to occur, increasing the accountability and reliability of the legal and institutional structures governing forest resources. The Alliance produced a capacity-building tool entitled *Forest Certification Assessment Guide* to assist in the pre-certification project period.<sup>35</sup> The Alliance reflected on its experiences by identifying a number of other lessons that it could use to improve its future operations. The other lessons included: the value of visionary targets; the need to focus on forests issues in a broader landscape approach; the difficulty of linking the Alliance program with other international development agendas; and the importance of engaging with the private sector for both additional resources and for outreach programs that influence the management of forestry resources.<sup>36</sup> Without the Alliance action, these valuable lessons would not have been learnt, and the knowledge would not have been passed on to other forest institutions.
4. A number of highly successful individual projects emerged from the Alliance. The best-known project involves the tripling of existing protected reserves and parks within the Amazon River basin. Some 13.5 million hectares of new, strict nature reserves were created; 7.5 million hectares of new sustainable-use areas were created to benefit local communities; and an additional 8 million hectares of parks are receiving support to strengthen their status. The other major project was the creation of the Congo Basin Forest Partnership. This brought governments together from Cameroon, the Central African Republic and the Republic of Congo to establish the 3.6 million hectare Sangha Tri-National Park.

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<sup>35</sup> Leape and Wolfowitz, above n32, 5.

<sup>36</sup> Leape and Wolfowitz, above n32, 26.

This is the first multilateral organisation to receive verification from an independent certification agency.<sup>37</sup>

5. The success of the original partnership led to the renewal of the Alliance – which, again, adopted a target-driven approach for its next phase. The following new goals were created:<sup>38</sup>
  - a. A reduction by 10% of the global levels of deforestation by 2010.
  - b. 25 million hectares of new protected forest areas.
  - c. 75 million hectares of existing forest protected areas under improved management.
  - d. 300 million hectares of forest outside strict protected areas under improved forest management comprising of three sub-targets –
    - i. 100 million hectares of forest independently certified consistent with the standards outlined in the World Bank’s Operational Policy of Forests (OP 4.36);
    - ii. 100 million hectares of forest progressing towards such independent certification; and
    - iii. 100 million hectares of forest land under community- based forest management agreements that improve local livelihoods.

These new targets reflect the knowledge obtained from the certification issues faced in the original Alliance project phase. They indicate that sustainable forest management is the priority of the Alliance; that is, the recognition and management of all forest values being managed for multiple benefits. This is an attempt to build sustainable forest management policy into the management of all forest types (not just forests being managed on a productive basis). Areas under conservation or protected status can benefit from improved silvicultural practices and lead to improved livelihood outcomes from local communities. This change in forest policy is consistent with existing research that indicates forests are best managed by taking into account all of their values (not just being managed according to one dominant forest value).

#### *ii. Forest Law Enforcement, Governance and Trade Scheme*

The Forest Law Enforcement, Governance and Trade Scheme emerged at the World Summit on Sustainable Development in Johannesburg, where the European Commission set out a strong commitment to combat illegal logging and the associated trade in illegally harvested timber.<sup>39</sup> Illegal logging, and the subsequent international trade in these timber products, is a major issue for many timber-producing countries with weak forest law governance arrangements.

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<sup>37</sup> Leape and Wolfowitz, above n32, 2.

<sup>38</sup> David Humphreys, *Logjam: Deforestation and the Crisis of Global Governance*, (2006), 188.

<sup>39</sup> European Commission, ‘What is FLEGT?’ (FLEGT Briefing Note Number 01, FLEGT Expert Group of the European Commission, 2007) 1.

Illegal logging causes a host of problems: environmental damage; billions of lost revenue dollars ; it promotes corruption and undermines the rule of law; and, in certain circumstances, the funds are used to finance the purchase of weapons.<sup>40</sup>

Consumer countries contribute to these problems by importing timber and wood products without ensuring that they are legally sourced. The Forest Law Enforcement, Governance and Trade Scheme recognise the connection that occurs between consumer countries' timber demands and the producer countries' role in meeting this demand. Illegal logging is a result of consumer countries wanting large quantities of cheap timber at low cost without regard to the source of the timber. It therefore seems reasonable for consumer countries to lead the way on addressing illegal logging and associated trade. Greater responsibility should be placed on those countries responsible for the high consumption of illegally sourced timber. Such responsibility is justifiable on the basis that high consuming timber countries create a market for illegally sourced timber and, as such, encourage illegally timber harvesting.

The original Forest Law Enforcement, Governance and Trade Scheme was formed under a council regulation of the European Union.<sup>41</sup> Three other regional schemes have been established: one in South East Asia; one in Africa; and one covering Europe and North Asia. The World Bank acts as a coordinator of all of these processes using its convening power and capacity to mobilise financial resources to assist in the implementation of all Forest Law Enforcement, Governance and Trade Scheme initiatives. The World Bank Forest Strategy and the scheme's policy objectives are compatible and closely aligned.

These schemes organise three types of sequential activities to implement their objectives.<sup>42</sup> Firstly, research is carried out to establish the necessary changes that need to occur within the forest policy and forest institutions – regional meetings discuss and refine these research results. Secondly, ministerial regional meetings seek to raise awareness among government decision-makers and to secure political commitment to correction active. A tangible outcome of this activity is the creation of Ministerial Declarations, which commit governments to combat illegal logging and to support the implementation of the scheme at a regional level. Thirdly, partnerships are created among trading partners, institutions of civil society, and industry to improve forest governance. These schemes seek better forest governance at the regional level through existing forest institutions. Wisely, these schemes do not create new

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<sup>40</sup> Ibid.

<sup>41</sup> *Council Regulation (EC) No 2173/2005 of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community* [2005] OJ L 347/1.

<sup>42</sup> Arnaldo Contreras Hermosilla and Markku Simula, *The World Bank Forest Strategy: Review of Implementation*, (2007), 83.

institutions to implement their objectives, instead using existing institutions and working with them to change their approaches to forest governance.<sup>43</sup>

The European Unions' scheme is the most advanced and, as such, will be examined here in further detail. Involvement with the European Union Forest Law Enforcement, Governance and Trade Scheme is voluntary at this stage.<sup>44</sup> The objective of the scheme is to ensure that all timber imported into the European Union is legally harvested and its authenticity assured. This assurance comes from the operation of the scheme's checks and balances,<sup>45</sup> which ensures that timber traded within the European Union is 'legally produced timber', that is: timber products produced from legally harvested domestic timber, or timber legally imported into a partner country.<sup>46</sup> As the definition of legal forest practices varies from country to country, it has been suggested that a more robust definition of legally harvested timber be provided.<sup>47</sup> The definition of legality is left to the producer country; however, this definition must be acceptable to other stakeholders in the scheme. It is recommended that the definition of legally procured timber incorporate the three pillars of sustainability (economic, environmental and social considerations). The inclusion of sustainability criteria will require laws which:<sup>48</sup>

- provide clear guidance on the legal tenure holding arrangements over forest areas.
- define the process for receiving approval to harvest within these forest areas;
- define the requirements of sustainable forest management; and
- define the taxes, import and export duties, royalties and fees directly related to timber harvesting and timber trade.

The scheme is implemented through the creation of licenses,<sup>49</sup> which are attached to timber products to certify they were produced legally. There are four elements in the legality-

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<sup>43</sup> Ibid.

<sup>44</sup> Council Regulation [5]

<sup>45</sup> Ibid [4].

<sup>46</sup> In furtherance of this objective, a number of European Union community members have implemented green procurement policies that require timber products to be from legal and sustainable sources. These countries are: Belgium, Denmark, France, Germany and the United Kingdom; see: European Union, *Forest Law Governance* (2007) Europa, <http://ec.europa.eu/environment/forests/flegt.htm> at 24 September 2008. Additionally, some European community members have enacted codes of conduct that aim to remove illegally harvested timber from their supply chains. These countries are: Finland, France, Netherlands, Spain and the United Kingdom. See: European Union, *Forest Law Governance* (2007) Europa, <http://ec.europa.eu/environment/forests/flegt.htm> at 24 September 2008 for further information

<sup>47</sup> European Commission, 'Public Consultation on Additional Options to Combat Illegal Logging Analysis and Report' (European Commission, Forest Law Enforcement, Governance and Trade Programme, 2006).

<sup>48</sup> This list is based on suggestions from European Commission, 'What is Legal Timber?' (FLEGT Briefing Note Number 02, FLEGT Expert Group of the European Commission, 2007) 1.

<sup>49</sup> Note 39 Article 2

assurance system.<sup>50</sup> Firstly (as discussed above), a definition of legally produced timber must exist which clearly sets out the criteria and indicators that can be used as a methodology to test this definition. Secondly, there must be control of the supply chain (which requires that systems exist to trace wood products from harvest to export). Thirdly, verification must be carried out by governments, market participants, or a third-party organisation to ensure compliance. This body must have the adequate resources and management systems to avoid conflicts of interests.<sup>51</sup> This body would verify compliance with agreed legality definition and verify the supply chain process. Fourthly, the issuing of licenses must be carried out according to a transparent procedure that defines who issues licenses and the method followed. A legality assurance system can be implemented through the issuance of either shipment-based licenses or operator-based licenses. Shipment-based licenses confirm that the individual consignment has complied with the relevant procedure; operator-based licenses confirm that a particular operations supplies timber that meets the scheme's requirements.<sup>52</sup>

The legality system discussed above is dependent on a Voluntary Partnership Agreement being in place. Voluntary partnership agreements are binding agreements between the European Union and a partner country, whereby both parties undertake to work together to support the aims of the scheme. These agreements are designed, ultimately, to eliminate illegally produced timber from a partner country's international and domestic trade.<sup>53</sup> All agreements require the development of credible legal, administrative and technical systems to verify that timber is produced in accordance with national laws.<sup>54</sup> These partnership agreements should be created with sufficient stakeholder consultation. They should also seek to minimise adverse impacts on local communities and on poor people (who will be affected by the operation of the agreement).

The first voluntary partnership agreement was between the European Union and Ghana (became operational in September 2008). It is anticipated that negotiations with Cameroon and Malaysia will conclude in the near future, with agreements forthcoming. Negotiations with Indonesia have been slow; however, there is ongoing consultation. Informal discussions have also taken place with Liberia and Vietnam. Meaningful implementation of the forest law

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<sup>50</sup> European Commission, 'A timber legality assurance system' (FLEGT Briefing Note Number 03, FLEGT Expert Group of the European Commission, 2007) 1.

<sup>51</sup> European Commission, 'Legality assurance systems: Requirements for verification' (FLEGT Briefing Note Number 05, FLEGT Expert Group of the European Commission, 2007) 1.

<sup>52</sup> European Commission, 'A timber legality assurance system' (FLEGT Briefing Note Number 03, FLEGT Expert Group of the European Commission, 2007) 2.

<sup>53</sup> European Commission, 'Voluntary Partnership Agreement' (FLEGT Briefing Note Number 06, FLEGT Expert Group of the European Commission, 2007) 1.

<sup>54</sup> European Commission, 'Voluntary Partnership Agreement' (FLEGT Briefing Note Number 06, FLEGT Expert Group of the European Commission, 2007)

enforcement, governance and trade scheme will be dependent upon the creation of many additional voluntary partnership agreements. The World Bank's role in the future implementation of the scheme will continue as a coordinating and networking role linking timber producing countries with timber consumer countries.

### *iii. Programme on Forests*

The Programme on Forests is a multi-donor partnership formed to enhance the contribution forests make to poverty reduction, sustainable development, and protection of environmental services through analytical work. The Programme on Forests supports the creation of new knowledge by financing activities in four thematic areas that are based on proposals submitted by applicants or by study ideas that originate from within the project. The Programme on Forests funds research that is likely to lead to an output (either instrument, toolkit or policy) and will assist in the implementation of sustainable forest management. The analytical work is carried out across four thematic areas:<sup>55</sup>

1. A 'livelihoods' approach to poverty reduction – work on this topic concentrates on the contribution that forests can make to poor rural people through the provision of employment and income creation. Research is conducted at the community and/or individual household levels.
2. Forest governance – work within this topic looks at the regulation of forests by both the government and other forest stakeholders. It tries to improve decision-making processes and regulatory and institutional frameworks to ensure good governance, including better enforcement of regulation, improved incentives and enhanced transparency and accountability.
3. Innovative approaches to financing sustainable forest management – this group aims to identify means for increasing profitability of sustainable forest management over that of unsustainable practices.
4. Cross-sector impacts on forests – this work devises and analyses ways to manage links between sustainable management of forests and other sectors and macroeconomic policy.

The donors to the program are the Department of International Development of the United Kingdom, the Finnish Department for International Development Cooperation, the Japanese International Forestry Cooperation, the Swiss Development Cooperation, and the German Government (which is an in-kind donor). The United Nations Development Programme initially administered the scheme; however, in 2002, the Programme on Forests was relocated to the

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<sup>55</sup> Hermosilla and Simula, above n42, 64.

World Bank.<sup>56</sup> The Programme on Forests works collaboratively with the World Bank to implement the Bank's forest strategy.

The Programme on Forests is thought to be a time- and cost-efficient arrangement providing problem-driven knowledge. Because this research is demand-driven, it is also thought that the scheme is highly relevant to current forest challenges.<sup>57</sup> It has been said that the program could have more impact if two suggestions were followed.<sup>58</sup> Firstly, it should make greater use of its existing synergies with the World Bank Group, the World Wide Fund for Nature and the Forest Law Enforcement Governance Trade Scheme. Working more pragmatically with these bodies would mean that the knowledge gained through the program's activities could be used by these other institutions. Secondly, although the scheme's objectives are consistent with the Bank's strategy, further integration is possible between the two bodies. The program could assist by providing project design and relevant case-study knowledge to assist in the project's implementation. A final observation is that the work of this program is similar to work performed by the Centre for International Forestry Research Organisation (a research institution funded by many international environmental institutions), and work carried out by the Collaborative Partnership on Forests. These three forest-related research bodies could have greater impact if there was institutional engagement to share knowledge and lessons.

### ***C. Engagement with global forest institutions***

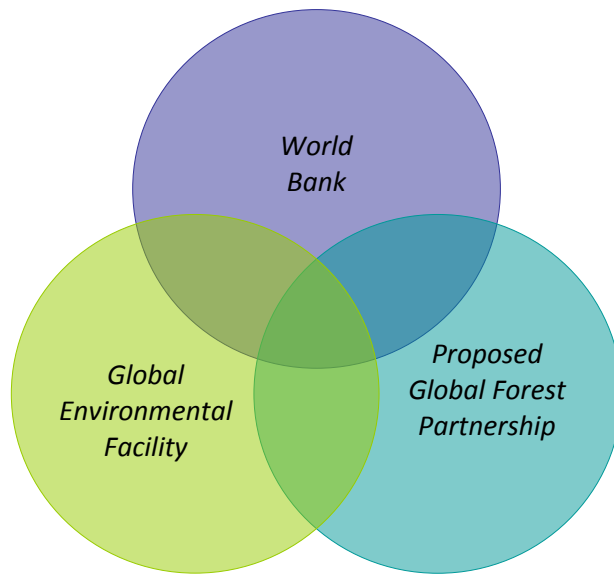
As well as the creation of formal partnership arrangements, the World Bank also engages with other international forest institutions. One of these is the *Global Environmental Facility*, an intergovernmental institution whose original mandate was the implementation of the conventions agreed upon at the UNCED negotiations, but whose role continues to evolve. The recent World Bank initiative sets out to explore the idea of establishing a 'global forest partnership'. This would further the implementation of the Bank's forest strategy by creating synergies with other forest-related institutions. The Bank is also supportive of the work carried out by the United Nations Forum on Forestry and its associated research body (the Collaborative Partnership on Forests). The role of World Bank in the Global Environmental Facility and the Global Forest Partnership is examined in closer detail below.

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<sup>56</sup> Programme on Forests, *About PROFOR*, (2007) Programme on Forests <http://www.profor.info/about.html> at 29 September 2008.

<sup>57</sup> Hermosilla and Simula, above n42, 65.

<sup>58</sup> Hermosilla and Simula, above n42, 67.



*i. Global Environmental Facility*

The Global Environmental Facility is the largest source of grant funding available for environmental projects in developing countries.<sup>59</sup> It acts the financial mechanism for the *Convention on Biological Diversity* and the *United Nations Framework Convention on Climate Change*, and is also assisting the implementation of the *Stockholm Convention on Persistent Organic Pollutants* and the *United Nations Convention to Combat Desertification*. The notion of an international environmental finance mechanism can be traced to the 1987 World Commission on Environment and Development report, *Our Common Future* (also referred to as the *Brundtland Report*).<sup>60</sup>

The *Brundtland Report* calls for “a significant increase in financial support from international sources” to combat global environmental challenges.<sup>61</sup> This is a call for developed countries to assist developing countries to meet global environmental objectives. Following on from this, the World Bank convened a meeting in Paris in March 1990. At this meeting, 17 donor

<sup>59</sup> Raymond Clemenson, ‘What Future for the Global Environmental Facility?’, 15 (1), (2006), *The Journal of Environment and Development*, 50.

<sup>60</sup> Alan Miller, ‘The Global Environmental Facility and the Search for Financial Strategies to Foster Sustainable Development’, 24, (1999-2000), *Vermont Law Review*, 1229, 1232.

<sup>61</sup> Brundtland Report at 336. ← is there a proper citation for this?



countries affirmed their interest in forming a facility to fund global environmental programs.<sup>62</sup> It is worth noting that, even at this time, some countries had recognised the futile nature of addressing global environmental issues domestically. This recognition led to the idea of financially assisting countries where domestic regimes lacked the capacity to act on the implementation of environmental initiatives – that is, creating a system where the cost of action was apportioned to the world community, not to individual countries.

The World Bank, the United Nations Environment Programme, and the United Nations Development Programme were charged with the responsibility of establishing the operational framework. The initial framework was set up around a three-year pilot program designed to test the effectiveness of a global environmental facility. The program made funds available for projects in developing countries that focused on addressing one of the four key priorities. These priorities were determined as actions that addressed climate change, biodiversity, international water resources, and ozone depletion.<sup>63</sup> Forest-related projects are funded under the biodiversity action plan,<sup>64</sup> and also under land degradation plans.<sup>65</sup> The administration of the program was housed at and carried out by the World Bank, while the United Nations Environmental Programme ensured that policies were consistent with those evolving at the upcoming UNCED negotiations. The United Nations Development Programme provided technical assistance and institutional building assistance.<sup>66</sup>

The role of the World Bank was contentious at this time, as the World Bank was held in poor regard by environmental NGOs. These groups believed that, in many instances, the Bank's investments had led to serious environmental degradation. The NGOs were hesitant to entrust the Bank with a stewardship role in the management of global financial resources with the apparent aim of improving environmental standards. These concerns were addressed in part by the restructuring of the Global Environmental Facility that occurred after the UNCED negotiations. The role of the World Bank, the United Nations Environmental Programme, and the United Nations Development Programme were preserved, but a new council of 32 countries was created. Non-governmental organisations were also given participation rights in council meetings as observers, which helped to build confidence with these stakeholders.

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<sup>62</sup> David Reed, 'The Global Environmental Facility and Non-Governmental Organizations', 9, (1993-1194,) *American University Journal of International Law and Policy*, 191, 192.

<sup>63</sup> Miller, above n60, 1234.

<sup>64</sup> Financing the Stewardship of Global Biodiversity: Global Environment Facility Report 2008 – see Section 3 Seeking triple benefits through sustainable forest management in tropical forests. This program supports interventions that simultaneously generate multiple benefits in biodiversity, climate change, sustainable land management and livelihoods. More than \$44 million was invested during the first six months of the program.

<sup>65</sup> Humphreys, above n38, 172. By 2004 GEF has committed \$778 million for forest-related funding, which has leveraged an additional \$1,995 million from other investors.

<sup>66</sup> Miller, above n60, 1234.

A controversial issue at the facility's inception – and a continuing one – was the budget allocation and transparency of the facility's operations.<sup>67</sup> The facility was originally entrusted US\$2 billion for investment during 1992–1994. It was recognised at the time that this investment alone was insufficient to address sustainable development. The UNCED secretariat estimated that the additional financial needs required for implementing Agenda 21 were \$125 billion per annum – which, at the time, was more than double the level of all international aid.<sup>68</sup> Therefore, a priority for the facility was the leveraging of additional private investment and the creation of self-supporting environmental markets.

Since 1991, the Global Environmental Facility has given \$7.4 billion in grants to developing countries and has generated \$28 billion in co-financing for environmental projects in developing countries. In total, 1,950 individual projects have been implemented by the facility. For the next project phase, 2006–2010, 32 countries pledged \$3.13 billion for projects.<sup>69</sup> The negotiations leading to the 2006–2010 funding level were delicate – because the USA drastically reduced its funding, necessitating Germany, France and Sweden to contribute additional funds.<sup>70</sup> Considering its budgetary restrictions and huge mandate, it is commonly accepted that the facility has made solid progress in implementing environmental projects in developing countries.<sup>71</sup>

A number of funding programs are available for developing countries and countries with economies in transition:

- The small grants program – this includes grants of up to \$50,000, and is made in support of community level initiatives. This program is seen as the most effective funding mechanism because it reaches many stakeholders, and benefits are attained at the local level at low cost.<sup>72</sup>
- Enabling activities – finance is provided under this option for either the completion of a plan, strategy or report required to fulfil commitments under global environmental conventions, or the creation of a national communication or report relevant to a convention.
- Medium-sized projects – a maximum of \$1 million is available for a broad range of programs aimed at increasing the flexibility and faster implementation of projects for the benefit of a wide range of stakeholders.

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<sup>67</sup> Raymond Clemencon, 'Funding for Global Environmental Facility Continues to Decline', 16 (1), (2007), *The Journal of Environment and Development*, 3.

<sup>68</sup> Millar, above n60, 1237.

<sup>69</sup> Internet site

<sup>70</sup> Clemencon, above n59, 5.

<sup>71</sup> Clemencon, above n59, 63.

<sup>72</sup> Clemencon 2006, 53-54.

- Full-sized projects – these are projects over \$1 million, and they must satisfy three requirements: i) they must satisfy an eligibility requirement under a convention; ii) they must be strategic priority of the facility; and iii) they must be either an operational program or a short-term response measure.

The operational strategy of the Global Environmental Facility provides that purpose of the facility is the provision of:

“... new, and additional, grant and concessional funding to meet the agreed incremental costs of measures to achieve agreed global environmental benefits in the areas of biological diversity climate change, international waters and ozone depletion”<sup>73</sup>

Global environmental facility finance is only to be used for incremental costs – that is, those incurred for the protection or enhancement of global environmental benefits. Actions taken by individual countries to meet convention requirements can be complemented and supplemented by other efforts aimed at securing global environmental benefits. The cost of protecting these global benefits is beyond the costs of achieving national development goals (thereby making it eligible for facility funding).<sup>74</sup> This consideration, along with six other strategic considerations,<sup>75</sup> is used in the assessment process of applications made to the facility.

#### *ii. Global forest partnership*

In 2007, the World Bank launched an initiative with the purpose of exploring interest in creating a ‘global forest partnership’. The Bank commissioned the International Institute for Environment and Development (IIED) to carry out consultations worldwide to review the relevant stakeholders’ interests in the creation of a new global forest institution. The initial survey released by the consulting body was vague and generic, and the purpose of the global forest partnership difficult to decipher.<sup>76</sup> This posed difficulties for the consultation, as respondents were not sure of the issues attempting to be addressed by the review.<sup>77</sup> Despite

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<sup>73</sup> Operational Strategy of the Global Environmental Facility Chapter 1 , p1 policy framework

<sup>74</sup> Op St GEF Ch 1 p 5

<sup>75</sup> The other six considerations are the project must: i) be consistent with national and, where appropriate, regional initiatives; ii) strive to ensure sustainability of global environmental benefits; iii) reduce the risk caused by uncertainty; iv) facilitate effective responses by other entities to address global environmental issues; v) be environmentally, socially and financially sustainable; and vi) avoid transfer of negative environmental impacts between focal areas.

<sup>76</sup> This author participated in the original consultation. I found it difficult to offer constructive feedback as the concept was so loosely defined. I was, however, interested in the World Bank pursuing this idea, as no other international institutions are seeking to address the issue of integration among existing global forest initiatives.

<sup>77</sup> Insert electronic link to questionnaire <- link needed?

this difficulty (along with other acknowledged limitations),<sup>78</sup> the IIED released a final report of the consultation in July 2008.

The report – entitled “*Towards a global forest partnership: Consultation, assessment and recommendations (by the IIED) Final Report 2008*” – does not provide a blueprint for action. It, instead, makes recommendations about the essential ingredients that a global forest partnership should include based upon the research carried out during its consultation period. The overarching recommendation of the report is that a three-year development process be carried out. Ideally, during this development period, the regulatory framework (the name of this new global forest institution) and the individual goals of this institution will be established.

The World Bank is currently exploring the role it will play in such a partnership.<sup>79</sup> It needs to be careful in framing its role in this new partnership, because feedback from respondents highlights weaknesses in previous Bank environmental projects.<sup>80</sup> It is commonly accepted, however, that the Bank should take a leading role in the funding of the partnership and its processes. This presents a challenge for the future of the partnership, as the Bank is unlikely to heavily fund an initiative without some degree of control over the objectives and policies of the partnership. The future of this partnership will be dependent upon the World Bank taking a leading role in its formation, because no global institution has expressed an interest in convening such a task.

The consultation document was released based on the Bank’s view that a new approach was urgently needed in relation to the old and emerging challenges evident in the forestry sector. This new approach must link changing local needs with the global forest agenda, capture the true values of forest areas, reduce incentives for forest degradation, and improve the resilience of forest ecosystems and forest communities.<sup>81</sup> The tentative vision and purpose of the global forest partnership is stated as:<sup>82</sup>

“People’s forestry: empowering stakeholders to improve livelihoods and ecosystem services through collaborative local, national and international initiatives and supportive investment.”

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<sup>78</sup> International Institute for Environment and Development, *Towards a global forest partnership: Consultation, assessment and recommendations*, International Institute for Environment and Development, London, UK, (2008), 26.

<sup>79</sup> <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTARD/EXTFORESTS/0,,contentMDK:21840644~pagePK:210058~piPK:210062~theSitePK:985785,00.html>

<sup>80</sup> IIED, above n78, 7.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid, 13.

This vision should be amended to incorporate the essential component of the partnership (namely, the creation of partnership linking current forest initiatives and stakeholders). It is envisaged that the partnership will carry out the following types of international activities:<sup>83</sup>

- Tiered forest stakeholder forays from national to regional to global levels
- A menu-based mechanism for technical and financial support
- Networks for research, learning, knowledge sharing and monitoring
- Preparing forest investment portfolios
- Amalgamation of some existing forest partnerships
- Roles in global forest financing mechanisms
- A small secretariat to assist the global forest partnerships work

The future of the global forest partnership is uncertain. The World Bank should be encouraged to lead the creation of this partnership, as it has the potential to deliver something missing from existing forest programs (that is, a system, which joins closely linked initiatives and creates partnerships between overlapping programs). This role is that of a meta-governance position, where ‘meta-governance’ can be defined as ‘the strategic steering and coordination of the governance of a system’.<sup>84</sup> If successful, this meta-governance could create clear thematic areas of work for forestry and engage relevant stakeholder institutions in working collaboratively to resolve globally agreed ambitions. This integration of forest priorities might well be the catalyst required for achieving progress in the implementation of sustainable forest management.

### **3. International Forest Instruments created by the World Bank**

#### ***A. The evolution of the World Bank forest strategy***

Staff members of the World Bank use a document entitled *Sustaining Forests: A Development Strategy* when assessing loan and development applications that concern forest interests. This strategy is the primary policy document used when assessing projects that will have a causal effect on surrounding forest areas. Thus, a broad approach is taken to defining forest-related projects, including projects within forest areas in addition to projects outside of forest areas that will impact upon the production of forest ecosystem services.

The Bank now acknowledges that the impacts on forests and forest-dependent peoples are more severe in relation to policy reforms and investments than occur outside the forest sector

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<sup>83</sup> Ibid, 16.

<sup>84</sup> Ingrid Visseren-Hamakers, Peter Glasbergen, ‘Partnerships in forest governance’ 17 (2007) *Global Environmental Change* 408, 409.

(rather than reforms and investments that occur within forest sector activities).<sup>85</sup> As such, non-forest interventions (such as rural development, infrastructure programs, and economic adjustment measures) must be carefully formulated, taking into consideration their impact on forest areas. This integrated approval process attempts to overcome shortcomings in the Bank's earlier forest policies.

The current strategy replaces previous forest policies released in 1978 and 1991.<sup>86</sup> The 1978 forest strategy received criticism for being industry-focused (as opposed to community-focused). This was due to the policy's support of commercial logging.<sup>87</sup> The policy indicated that commercial logging would assist local communities by providing much-needed revenue and investment at the local level. A number of campaigns were waged against the Bank to halt its investments in projects, which led to significant deforestation and forest degradation.<sup>88</sup> Due to the extreme pressure from these campaigns, the Bank was forced to reconsider its forest policy.

This led to the introduction of the 1991 Forest Strategy. This strategy contained a firm commitment that "the Bank group will not under any circumstances finance commercial logging in primary tropical moist forests". Additionally, the Bank had decided to address forestry issues in a multi-sectoral context (meaning that it would look at the impact of developments outside the forestry sectors, which impacted upon forest resources). This policy was strongly endorsed by civil society; however, it is now acknowledged that the Bank lacked the mechanisms to implement the objectives of this strategy.<sup>89</sup>

The 2002 strategy departed from earlier ones in a number of ways.<sup>90</sup> Firstly, the focus of the 2002 strategy was on poverty reduction and the use of forest resources to improve the livelihoods of forest-dependants. This is a change from the earlier focus on combating deforestation and encouraging conservation of remaining forest areas. Secondly, the strategy now focuses on all types of forests, as well as forest-rich and forest-poor countries. Earlier forest strategies placed most emphasis on the conservation of tropical forest areas. Thirdly, the strategy focuses on improving the management of productive forest areas. It is now recognised that productive forest areas can be managed sustainably to provide a number of forest services. This recognition meant that the 1991 ban on tropical forest harvesting

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<sup>85</sup> Forest Strategy p 2.

<sup>86</sup> See Logjam for commentary on old forest policies.

<sup>87</sup> Humphreys, above n38, 169.

<sup>88</sup> In particular, the Polonoeste project in the Brazilian Amazonia led to substantial deforestation. For further information on Bank investments leading to deforestation see Logjam p 170.

<sup>89</sup> Humphreys, above n38, 171.

<sup>90</sup> Hermosilla and Simula, above n42.

programs was lifted. Fourthly, the new strategy focuses on ways to enhance the quality of governance, particularly issues related to illegal logging, corruption and forest related trade. Fifthly, the strategy uses the concept of 'forests' as opposed to 'forestry' to show the conceptual change in understanding of forests multiple values. And sixthly, the 2002 strategy is to be implemented through the formation of partnership at the global, national and local levels.

The International Finance Corporation and the Multilateral Investment Guarantee Agency are responsible for implementing the forest strategy. The strategy recognises five global challenges relating to forests:<sup>91</sup>

1. Failure of governance, leading to the loss of ecosystems services, livelihood services, and forest capital due to the provision of forest concessions and illegal harvesting.
2. The need to integrate forests in the fight against rural poverty. In many developing countries, rural poverty cannot be reduced unless forest resources are sustainable, developed, and used more efficiently.
3. The contentious nature of forestry policy and reform. There is a need to deal with the inherent conflict present in resolving forest issues. This requires strong institutional frameworks and an overarching effective legal and regulatory regime. This regimen must recognise and protect the rights of the forest-dependent people, while also allowing for the development of sustainable forest businesses.
4. The failure of markets to capture the true value of forest environmental services. Well-established markets exist for forests timber and fuel wood values. However, other forest values (such as contributions to the environment, biodiversity, and the stability of global climate) are not recognised in terms of financial value and, therefore, go unrecognised in markets.
5. The need for accounting systems, which prescribe the global values of forests. At the global level, forests operate as sinks for carbon, and house the majority of terrestrial biodiversity. These values are, therefore, global forest values (which require global initiatives).

After the challenges of forest management are identified, the policies then move forward to describing the strategy to overcome these challenges. The three pillars of the strategy (listed in more detail at the start of this chapter) can be stated briefly as: i) harnessing the potential of forests to reduce poverty; ii) integrating forests in sustainable economic development; and iii) protecting vital and local global forest environmental services and values.

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<sup>91</sup> World Bank Group, above n2, 17-18.

The methodology for implementing these three pillars is thought to be based around four considerations. Firstly, project selectivity – projects that are allocated funding must provide dual benefits, either by building in poverty reduction strategies, or by integrating forest practices with larger cross-sectoral and broad economic programmes. Secondly, the Bank views the building of partnerships as a crucial element in the building of an effective global forest monitoring system. Three of these partnerships are discussed in detail above. The Bank also is interested in strengthening its relationship with a number of other institutions.<sup>92</sup> Thirdly, the coordination of forest action and policy across the five institutions of the World Bank Group to ensure consistency – this is an internal structural adjustment to be fulfilled by the Bank. And fourthly, the creation of financial mechanisms to ensure that adequate funds exist for the implementation of the strategy; this will require the development of blended financial arrangements from multiple sources to reduce the overall financing cost to client countries.

The policy creates a concept of ‘country ownership’. This concept is used throughout the forest strategy, and is defined as a commitment by the borrower and other major local stakeholders to the objectives and means proposed by the Bank.<sup>93</sup> This concept, essentially, requires that countries abide by Bank policy and strategy to obtain funding for projects. Furthermore, the use of the word ‘ownership’ is evidence of the Bank attempting to attribute responsibility to countries that they abide by the conditions of the grant. Thus, the provision of bank funds comes with conditions. Depending on the nature of these, it may operate to suit both the Bank’s and recipient country’s forest objectives.

### ***B. Operational policies and bank policies***

The forest strategy is used in conjunction with operational policies and Bank policies. The Bank has 10 environmental policies that are based on environmental assessments, natural habitats, pest management, involuntary resettlement, indigenous people, forests, cultural resources, dam safety, international waterways and disputed areas.<sup>94</sup> The relevant operational and Bank policy for forests is OP 4.36 and BP 4.36. Each project must follow these procedures to ensure that a consistent approach is taken to achieving the Bank’s corporate priorities and strategic goals. Operational policies are short statements that establish the parameters for conducting operations, describe the circumstances in which exceptions to policy are admissible, and spell

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<sup>92</sup> These include the Collaborative Partnership on Forests (global research network), Food and Agricultural Organization of the United Nations, International Tropical Timber Organization (private intergovernmental institution) among a number of others see p46-51 of Strategy for further detail.

<sup>93</sup> World Bank Group, above n3.

<sup>94</sup> World Bank Group, above n1, 56.



out who can authorise any exceptions.<sup>95</sup> Bank procedures explain how staff members carry out operational policies by describing the procedures and documentation required to ensure consistency and quality across the Bank.<sup>96</sup>

The policy objective of OP 4.36 is to assist borrowers to harness the potential of forests to reduce poverty, integrate forests effectively into sustainable economic development, and protect vital local and global environmental services and values of forests.<sup>97</sup> Funding is provided under the policy in three instances: where the project will have or may have impacts on the health and quality of forests;<sup>98</sup> for projects that affect the rights and welfare of people and their level of dependence upon or interaction with forests;<sup>99</sup> for projects that aim to bring about changes in the management, protection or use of natural forests or plantations, whether they are publicly, privately or communally owned.<sup>100</sup> These categories are broad in their approach and, as such, most forest projects would fit easily within one (if not two) of these categories.

The Bank will not finance projects that involve significant conversion or degradation of critical forest areas. ‘Critical forest areas’ are defined to mean: existing protected areas and proposed protected areas; areas protected by traditional local communities; sites that maintain conditions for the viability of these protected areas; areas with high suitability for biodiversity conservation; and sites that are critical for rare vulnerable, migratory or endangered species.<sup>101</sup> However, the Bank will finance projects that involve significant conversion or degradation in non-critical forest areas, provided that the development of the project is offset or mitigated.<sup>102</sup> This is a departure from previous Bank policy, which banned the conversion of tropical forests under any circumstances.

This ban was strongly endorsed by civil society groups, who were disappointed with the reversion to policies that allowed for significant disturbance to forest ecosystems.<sup>103</sup> The Bank explains the change of policy with reference to implementation reports of its forest strategy, which demonstrate that the ban did not assist local communities who were dependent upon forests (therefore not meeting policy objectives).<sup>104</sup> Under the policy, conversion of non-

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<sup>95</sup> Ibid, 55.

<sup>96</sup> Ibid.

<sup>97</sup> Operational Policy 4.36 [2].

<sup>98</sup> Operational Policy [3a].

<sup>99</sup> Operational Policy [3b].

<sup>100</sup> Operational Policy [3c].

<sup>101</sup> Operational Policy 4.36 Annex a definitions (c).

<sup>102</sup> Operational Policy [5].

<sup>103</sup> Humphreys, above n38, 178-179.

<sup>104</sup> World Bank Group, above n3.

critical areas only occurs when there is no other feasible alternative and the overall benefits from the project substantially outweigh the environmental costs. These requirements may be met easily, especially when large sums of Bank finance are on offer. The Bank does not appear to have concrete environmental offset or mitigation requirements.

The policy allows the Bank to finance commercial harvesting within areas that are deemed to be non-critical forests and non-critical natural habitats. To obtain Bank finance for these operations, independent forest certification must be obtained. Forest certification groups endorse on the basis that sustainable forest management practices are followed. A number of different forest certification bodies exist. No particular forest certification group is specified; however, the Bank's requirements align closely with the procedures of the Forest Stewardship Council.<sup>105</sup> The financing of commercial harvesting initiatives may not sit comfortably with groups that are fundamental in their approach to forest conservation and protection. On the other hand, it should be noted that the establishment of commercial harvesting plants that are certified to be operating sustainably have the potential to provide timber for the growing global timber market. They would also provide local communities with a sustainable industry that they can use to leverage themselves out of poverty. This, of course, is a vision of what sustainable timber harvesting can achieve. In many instances, and for a wide variety of reasons, harvesting operations will not result in such a successful outcome.

To acquire Bank finance, the borrowing country must provide the following information: the borrower's overall policy framework; national forestry legislation; institutional capabilities; and identification of the poverty, social, economic or environmental issues related to forests.<sup>106</sup> The Bank approves finance on the basis that changes are made to strengthen the fiscal, legal, and institutional capacity of the borrower's regulatory framework to improve the forest project's implementation.

Bank Policy 4.36 outlines the process and instruments required to implement the forest strategy and forest policy. BP 4.36 contains two sections: project preparation; and project implementation and supervision. The preparation stage ensures that the project is assessed under the relevant environmental assessment.<sup>107</sup> The task team also prepares an assessment of the adequacy of the land-use allocations for the management, conservation, and sustainable development of forests. This assessment takes into consideration the existence of critical forest areas and the impact of the project on local communities. The assessment has

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<sup>105</sup> Humphreys, above n38, 179-180.

<sup>106</sup> Operational Policy [14].

<sup>107</sup> Bank Policy [4].

additional requirements if the project involves commercial harvesting<sup>108</sup> or community-based forest management and development.<sup>109</sup> During the project implementation and supervision, the regional vice-president ensures the availability of resources, and each project is supervised in accordance with Operational Policy 13.05 Project Supervision.

The forest strategy recognises that internal modifications need to occur so that the Bank's operational policy is consistent with the strategy.<sup>110</sup> Of relevance are: operational policies 8.60 (which governs the implementation of structural adjustment programs); operation provision 4.01 (which deals with the impacts of the proposed activity on the natural environment, human health and safety, and social considerations); and operational policy 4.04 (which requires consideration of critical natural habitats). This internal adjustment is a major theme of the report on the review of the forest strategy (discussed in the next section).

### ***C. Useful instruments generated from partnerships***

Two instruments generated from the Bank's partnerships are worth closer examination. The World Bank and World Wide Fund for Nature Alliance produced a governance tool that creates a self-assessment regimen (along with guidance on the how to create forest targets). This instrument was prepared by the International Institution for Environment and Development (on behalf of the Alliance) and is entitled *The Pyramid: A Diagnostic and Planning Tool for Good Forest Governance*.<sup>111</sup> The second instrument is a *Poverty Forestry Toolkit*<sup>112</sup> prepared by the Programme on Forests. This toolkit provides a simple methodology that can be used to describe the forest-poverty nexus.

#### *i. Forest pyramid*

As the name suggests, the pyramid creates tiers that are required for the implementation of sustainable forest management. Because the World Bank and World Wide Fund for Nature Alliance are concerned with expanding the areas of forest land under certification arrangement, the purpose of the pyramid is the implementation of sustainable forest management. Each tier of the pyramid (illustrated below) is accompanied with a questionnaire that countries can use to self-assess their progress within the particular tier. Each questionnaire focuses on an element of good governance and on three questions: 'What's working?', 'What's missing?', and 'What needs to be done?'. The pyramid and accompanying questionnaires have not been designed solely for the legal profession. The straightforward

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<sup>108</sup> Bank Policy [5].

<sup>109</sup> Bank Policy [6].

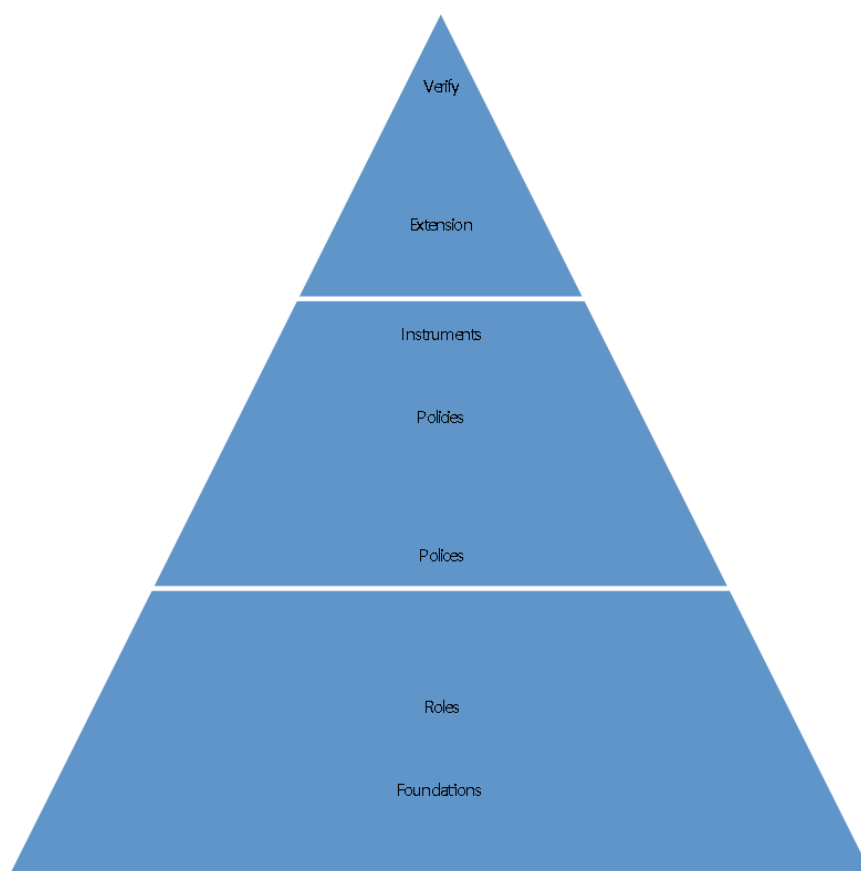
<sup>110</sup> World Bank Group, above n3, 21.

<sup>111</sup> J Mayers, S Bass and D Macqueen, *The pyramid: a diagnostic and planning tool for good forest governance*, Power Tools series, International Institute for Environment and Development (2005).

<sup>112</sup> Programme on Forests, *Forest Poverty Toolkit*, PROFOR (2007).

three-question approach may not be the traditional format with which legal policy makers work; however, the simplicity of this approach makes self-assessment straightforward. There is, of course, room for improvement within the instrument. Some of the elements within the questionnaires require clarification; a report could be provided which explains each criteria of the tier may as assistance to regulators. Despite this, the overall purpose and vision of the pyramid is useful for forest regulators. Each tier of the pyramid will be briefly summarised below.<sup>113</sup>

**Table 1: The Forest Pyramid<sup>114</sup>**



The foundation tier of the pyramid requires the building blocks of forest management to be established. The first of these is the creation of property and tenure rights over the forest area. Also, the operation of the local constitution needs to be taken into account to determine the level of government responsibility and any overarching constitutional requirements related to forest management. The local market and investment conditions must also be considered, as

<sup>113</sup> There are a number of requirements for each tier, the critical aspects of the tiers are summarised here, but this is not a complete list of all of the requirements of each tier. Please see the report for further information.

<sup>114</sup> Mayers et al, above n111, 12.

these relate to forests. The major forest institutions must also be identified across all sectors (public, private and local).<sup>115</sup>

The tier for 'roles' requires widespread acceptance that there are multiple valid perspectives and stakeholders within the forest-related sectors. Information needs to be obtained on present and future uses, assets and demands. As well, basic forest institutional architecture structure and decision-making rights and powers must be agreed upon and put in place.<sup>116</sup>

The tier for 'policies' requires an agreed vision of forest management with roles and basic institutional architecture of the forest sector recognised in central forest policies and laws. There must also be clear, equitable and legally defensible rights in place to manage forest areas and to extract resources from public forests for full economic compensation. Also, relevant stakeholders must be made aware of their rights (especially holders of customary rights).<sup>117</sup> Within this tier, a definition of sustainable forest management needs to be adopted that contains a methodology against which progress towards sustainable forest management can be assessed.<sup>118</sup>

The 'instruments' tier requires the creation of regulatory instruments that provide for: forest tenure rights within an allocation system; protection of public and intergenerational interests in forests; forest management and investment conditions and control; market access for stakeholders; anti-corruption provisions; and a revenue system dealing with domestic and international export forest product prices. Capacity to create and carry out the purpose of these regulatory requirements must also be developed.<sup>119</sup>

The 'extension' tier involves reaching beyond the immediate forest stakeholders and educating the wider community about the importance and place of sustainable forest management. This will include forest consumers, forest producers (such as investors, processor, middlemen, retail and the general public).<sup>120</sup> This tier is important because, without wide support and understanding of the sustainable forest management, the implementation and effectiveness of the concept will be undermined. 'Extension' is an area that most developed and developing countries could improve upon.

The 'verification' tier involves the independent assessment of forest industry practices. This assessment can be fulfilled by meeting the requirements of certification schemes or any other

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<sup>115</sup> Ibid.

<sup>116</sup> Ibid, 19.

<sup>117</sup> Ibid, 20-21.

<sup>118</sup> Ibid, 22.

<sup>119</sup> Ibid, 24.

<sup>120</sup> Ibid, 25.

reputable audit forest schemes.<sup>121</sup> ‘Verification’ means that forestry practices must be transparent; it increases the accountability of those in charge of the industry. It also means areas that require improvement are identified so that solutions can be created.

The pyramid is a useful tool as it identifies the regulatory requirements associated with sustainable forest management. All countries can benefit from the application of the tool; countries can start at the tier that is most appropriate for their forest industry. It provides guidance on how current practices can be improved, and then identifies the next challenge to face (after all facets of one tier have been adequately addressed). This type of planning instrument provides a ‘big-picture’ approach, and could help forest regulators focus on overall end-goals, (as opposed to floundering in bureaucratic processes of little substance).

#### *ii. Poverty Forestry Toolkit*

The Poverty Forestry Toolkit creates a methodology that can be used to assess linkages between forests and poverty at the local and national level. This is a useful instrument because it provides guidance on how to investigate within an analytical framework the poverty-relationship at the local level. This is the first methodology to be established exploring these forest-poverty synergies. The purpose of the toolkit is to: rapidly assess dependence on forests; provide a vehicle for poor people to comment upon forest laws and policies; identify policy problem and opportunities; deliver value where there is a willingness to listen to results from key stakeholders; and deliver data on topics impossible to access quickly through orthodox quantitative methods.<sup>122</sup> The toolkit is, thus, not an action plan for changing poverty levels in forest areas. However, the data gained from the toolkit might then be used for this purpose should there be sufficient interest and support for this kind of initiative.

The methodology sets out three stages of investigation. Stage one provides a process for selecting a suitable sample group to observe. Guidance is provided on the type of sites that should be selected (sites in poorer areas of country, sites with wide range of forests, and sites where a variety of forest tenures exist).<sup>123</sup> During this stage, contact should be made with local and national governments to explain the purpose of study, and an understanding should be gained of the different roles that the various levels of government play in forest and poverty policies.<sup>124</sup> Understanding the role of different governments in regulation is crucial, because this will ensure that results are conveyed to the appropriate place. This may result in

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<sup>121</sup> Ibid, 26.

<sup>122</sup> PROFOR, above n112, 8.

<sup>123</sup> PROFOR, above n112, 1.

<sup>124</sup> PROFOR, above n112, 2.

further action at the appropriate government level once the assessment is complete and data are delivered.

Stage two involves visiting the selected sites and meeting with village officials. Interestingly, the toolkit emphasises that because the data gathering will not result in direct benefits to the communities, it is essential to compensate the villagers for their time. It is suggested that providing luxury food items from town (such as rice and cold drink, and a slaughtered animal for roasting)<sup>125</sup> would be appropriate. The acceptability of these as payment serves as a reminder of the level of poverty being confronted.

Stage three outlines the process and key questions of the methodology. In total there are eight tools:<sup>126</sup>

1. Wealth ranking tool – the attributes of rich, average, poor, and very poor are identified. These attributes will vary from location to location.<sup>127</sup>
2. Local landscape analysis – understating of the way in which members of the village use local resources.
3. Timeline and trends – records a short history of the community so that changes in the use of forest resources, agriculture use, local livelihood strategies, and sources of income can be identified.
4. Livelihood analysis – carried out to discover the extent of cash and subsistence reliance on forest resources, and the proportion of the total annual livelihood that comes from them.
5. Ranking of importance of tree and forest products – undertaken to determine which forest products are used to generate income, and which are used for subsistence.
6. User rights, duties, and benefits – carried out to determine all forest stakeholders and their associated rights and uses of the forest.
7. Forest Problem and Solution Matrix – conducted to identify and rank the main forest problems (including legal and policy problems).
8. Final plenary – used to present the main finding from the subgroups (so that key emerging issues can be summarised).

Once this process has been followed, the knowledge gained from the process must be disseminated to a number of different groups. The information needs to be prepared at the district level, with an emphasis on identifying issues of special relevance to district

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<sup>125</sup> PROFOR, above n112, 6.

<sup>126</sup> PROFOR, above n112, 9 – 43.

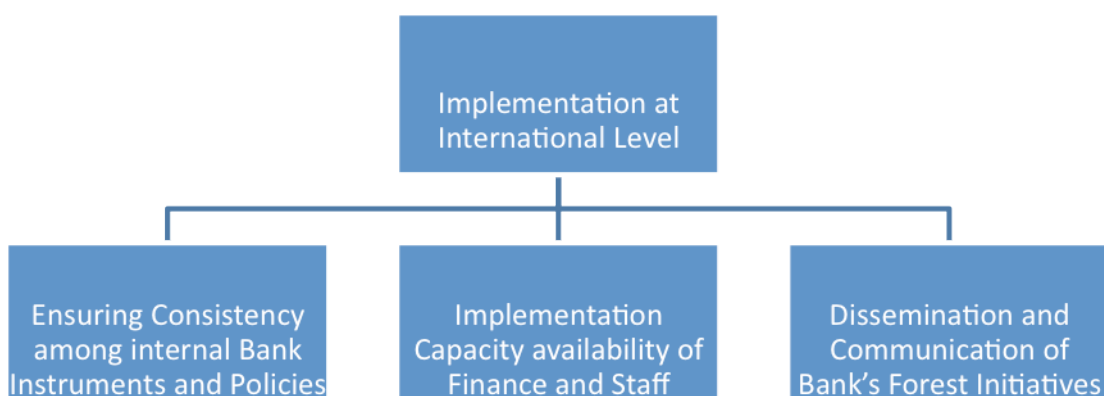
<sup>127</sup> For example in Tanzania, animal ownership and amount land held were key attributes, while costly housing and consumer items were not regarded as very important. Toolkit Part 2, page 9.

authorities.<sup>128</sup> Information also needs to be disseminated at the national level to relevant ministries, so that these bodies can include poverty-forestry linkages within relevant instruments. *Poverty Reduction Strategy Processes* are a requirement for World Bank funding. Information gained through the use of toolkit will assist countries in completing these strategies and will clearly identify the poverty-forest relationship at the relevant local level. This toolkit has the potential for a wide application by a variety of participants (including governments, NGOs, international and intergovernmental institutions, and community groups). It provides a much-needed analytical framework for data collection, and identifies avenues where this data can be used. Policy change and on-the-ground action cannot occur without knowledge of local conditions. The toolkit has the ability to provide to generate this knowledge.

#### 4. Implementation of World Bank Forest Initiatives

##### A. Implementation of the forest strategy

The implementation of the World Bank Forest Strategy and associated Forest Partnership Policy involves implementation at a number of different levels. Firstly, there is implementation at the international level, which requires internal bank instruments and policies to be consistent and supportive of the forest policy. Implementation at this level also requires consideration of the Bank's capacity to finance the implementation and provide appropriate staffing. It also involves the dissemination of its internal instruments and procedures to relevant stakeholders (such as national and local governments and civil society groups).



<sup>128</sup> PROFOR, above n112, 22.



Secondly, there is implementation of the international policy at the individual country level. This can take many different forms. World Bank forest policy may influence domestic forest policies, Bank projects may be implemented according to bank policies, or funds may be made available to amend domestic forest policies. It has been suggested that the ultimate aim of environmental agreements is to influence the behaviour of those who cause or can ameliorate the problem at hand.<sup>129</sup> The people who cause the problem and people with the power to change current practices are the target groups of international environmental policy. Changes in target behaviour are the ultimate goals of international environmental agreements; however, these agreements usually go through several stages, or levels, before they influence the target group.<sup>130</sup> Effective implementation, therefore, requires widespread institutional acceptance – and a widespread understanding by stakeholders of their rights and responsibilities within the framework.

A report is available that reviews the implementation of the 2002 World Bank Forest Strategy.<sup>131</sup> The overarching recommendation of the report is a call for greater incorporation of the Bank's forest strategy into core bank policies and operations. This requires internal understanding of the forest strategy's role and the purpose of the Bank's forest partnership and forest engagement relationships. It appears that there is internal confusion as to the operation of the forest strategy. From an outsider's perspective, it is a challenging task to try to piece together the Bank's forest regulatory framework. It is difficult to understand the engagement that occurs within the Bank's forest framework and its further engagement with the Bank's wider operations. The fragmented nature of the Bank's forest framework could be used as a justification for creation of the Global Forest Partnership. As discussed earlier in this chapter, this partnership could create thematic program areas, and this would help to increase the clarity of the Bank's forest regulatory framework.

More specifically, the review of the World Bank Forest Strategy suggests four avenues that could be used to incorporate the forest strategy more meaningfully:<sup>132</sup>

- Mainstreaming the forest strategy into key Bank instruments (such as poverty reduction strategies, country assistances, development policy loans and broader investment projects).
- Using the forest strategy to promote investment lending in forest projects.
- Enhancing the role of partnerships and linkages to implement the forest strategy.

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<sup>129</sup> David Victor, Kal Raustialia and Eugen Skolnikoff, *The Implementation and effectiveness of International Environmental Commitments: Theory and Practice* (1998), 4.

<sup>130</sup> Ibid.

<sup>131</sup> World Bank Group, above n3.

<sup>132</sup> This list has been created after summarising the main points from the report.

- Building due diligence to ensure that key bank operational policies trigger the application of the forest strategy, and identify avenues for improvement in the operation of the forest strategy.

The review team carried out a survey about poverty review strategies, country assistance strategies, and development policy loans to determine if the three pillars of the forest strategy were incorporated into these operations.<sup>133</sup> Poverty-reduction strategies are used to describe a country's macroeconomic, structural, and social policies as well as programs to promote growth and reduce poverty.<sup>134</sup> Of the 43 sampled strategies, only 28 discussed the relationship that exists between forests and poverty.<sup>135</sup> This demonstrates a lack of recognition within policy instruments about the nexus between forest dwellers and poverty. The World Bank should introduce a mandatory component within poverty-reduction strategies discussing the forest/poverty nexus.

Country assistance strategies are designed to promote collaboration and coordination among developing partners in a country. They are used to identify the key areas where Bank assistance can have the biggest impact on poverty reduction. Of the sampled country assistance strategies, it was found that only 23 out of 53 contained actions to address forest-poverty relationships. Furthermore, it was found that even amongst the 23 that considered this linkage, the analysis required significant improvement. This suggests a need for information and training to explain the relationship between forests and poverty and potential policy solutions.

Development policy lending is aimed at supporting the implementation of policy reform at either the macro or sector level through rapidly disbursing financing.<sup>136</sup> This policy lending can have a significant impact upon forests, and these impacts need to be considered. The review found that relatively few lending policies included assessment of the potential effects of policy reform on forests beyond the statement that there was "no likely significant effect". This indicates a lack of integration of the forest strategy into Bank operations.

In relation to investment lending, the review found that since the introduction of the Forest Strategy in 2002: 12 forest projects were implemented; 39 projects with a forest component were implemented; and there were 13 projects in the pipeline (4 of which were forest projects).<sup>137</sup> Comparing these figures with earlier Bank forest investment figures demonstrated

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<sup>133</sup> The three pillars of the forest strategy are: i) harnessing the potential of forests to reduce poverty; ii) integrating forests in sustainable economic development; and iii) protecting vital local and global environmental values.

<sup>134</sup> Hermosilla and Simula, above n42, 6.

<sup>135</sup> Hermosilla and Simula, above n42, 7.

<sup>136</sup> Hermosilla and Simula, above n42, 10.

<sup>137</sup> Hermosilla and Simula, above n42.

that there had been no expansion in forest lending since the introduction of the Forest Strategy.<sup>138</sup> The review also considered the compatibility of these projects with the forest strategy. Generally on this point, it was found that the projects better addressed pillar two<sup>139</sup> and pillar three<sup>140</sup> of the forest policy. It was found that, in relation to poverty alleviation, only 14 out of 40 sampled considered the poverty-forestry connection.<sup>141</sup> This is despite the stated overarching goal of the Forest Strategy to be one of poverty reduction.

The review also recommended greater involvement of the international finance corporation in the implementation of the forest strategy. This body is responsible for lending finance directly to private business interests. The review believed that investment in sustainable forestry projects could be made more appealing to private investors if the Bank and the international finance corporation jointly used their existing expertise to channel additional funding into forestry projects. Private investment in sustainable forest management is low due to: i) the shortage of sustainable private operations; and, ii) to a perceived reputational risk that could arise from investing in forest projects.<sup>142</sup> 'Reputational risks' are associated with investments that take over indigenous peoples' land, displace peasant farmers, marginalise small landholders, lack adequate stakeholder considerations, or fail to carry out adequate impact assessments.<sup>143</sup> The review suggests that these reputational risks can be avoided. This can be achieved by the Bank (with assistance of NGOs) demonstrating that sustainably managed and certified forest operations can generate important social and environmental benefits, and can reduce pressure to convert these lands to other uses.<sup>144</sup>

The review also found that the forest operational policy (OP 4.36) was not applied to all forest projects. The operational policy was applied in 79% of cases, but it is still of some concern that such a key Bank policy was not triggered for use in 21% of forest projects. No reason was found to explain the lack of application, though it was inferred (from Bank staff) that the application of operational policies slows down and increases the cost of projects – this results in Bank staff applying fewer operational policies than might be required.<sup>145</sup> The review recommends that bank staff be educated on the importance of complying with operational policies. These are important, because they reduce project risks and improve project quality –

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<sup>138</sup> Hermosilla and Simula, above n42.

<sup>139</sup> Pillar two is the integrating forests in sustainable economic development – out of the 40 sampled projects, 27 considered this pillar highly, while 6 projects gave it substantial consideration. Review p. 21

<sup>140</sup> Pillar three is protecting vital local and global environmental values – out of the 40 sampled projects, 26 considered this pillar highly, while 7 gave it substantial consideration. Review p. 21

<sup>141</sup> Hermosilla and Simula, above n42, 21.

<sup>142</sup> Hermosilla and Simula, above n42, 30.

<sup>143</sup> Hermosilla and Simula, above n42, 30.

<sup>144</sup> Hermosilla and Simula, above n42, 30.

<sup>145</sup> Hermosilla and Simula, above n42, 44.

and, in relation to forestry, encourage the implementation of sustainable forest management compatible with the Bank's forest strategy.<sup>146</sup>

## 5. Conclusion

The World Bank's approach to forest policy is innovative in a number of ways. This innovation is linked to the banks integrated approach internally and externally. Internally the Bank's main goal of poverty reduction means that its forest policy is aligned with this goal – and this means that the Bank's forest policy is more integrated with social and economic considerations than most other international forest policy.

Externally, the Bank has formed a number of strategic partnerships. These have proved effective in terms of pooling expertise and resource, as well as in removing some of the policy duplication within international forest institutions. Furthermore, these partnerships have, in some instances, involved a target-driven approach. Setting and reporting on targets increases the transparency and accountability of the institution. Targets might also assist in increasing compliance and implementation of forest policy. Parties involved in target-driven approaches will feel more compelled to comply when they must report upon the progress made towards reaching the target. The Bank is the only international institution to have adopted a target-driven approach to forest regulation and other international forest institutions should trial them.

The Bank should also be commended for starting an international process aimed at integrating global forest governance arrangements. International forest governance is exceptionally fragmented and, as a result, there is great deal of overlap and duplication between existing international forest processes. The Bank is the most suitable international institution to lead governance reform of international forest arrangements, because it has practical experience in using integrated policy and partnership approaches. The Bank should capitalise upon this experience in leading the reform of global forest governance arrangements.

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<sup>146</sup> Ibid.

## **PART FOUR:**

### **REGULATION BY NON-STATE FOREST INSTITUTIONS**

Non-state regulation differs significantly in nature from United Nations or public international regulation. The first significant difference lies in the absence of an instrument establishing the processes and rules for international engagement. Non-state international regulation does not have to comply with a set process for establishing rules and processes. Therefore, non-state regulation is not bound by a system of rules. This can be contrasted with public international regulation, which is guided by the United Nations charter.

Secondly, non-state forest regulation is voluntary in nature. The schemes discussed are voluntary in the sense that international political pressure to participate within these schemes is markedly less than those associated with participation through the United Nations' approaches. Engagement with non-state regulatory approaches is, therefore, based upon the perceived benefits associated with participating with the scheme (improved forest outcomes, increased price premium for timber, green credentials). The emergence of new voluntary-based instruments could be linked to responsibilities created by the concept of corporate environmental responsibility. Non-state regulation works best when there is a high value placed on the benefit associated with participating with the scheme.

While parties engaged in public international regulation often aim to achieve international cooperation over a particular issue, parties involved in non-state regulation tend to be more focused on seeking compliance from those interested in implementing their standards. This provides a clear advantage for non-state regulation, in that the time dedicated to negotiating policy can be significantly reduced compared to negotiating timeframes within public international regimes. Generally, membership of non-state regulatory bodies is open to all interested parties, but confirmed by complying with certain conditions and fulfilling certain requirements.

Another feature of non-state regulation is the use of market mechanisms as a major instrument of enforcing policy and regulation. The two forms of non-state forest regulation examined within this thesis both involve market mechanisms. Forestry markets (also known as Payment for Ecosystem Services Schemes), Environmental Banking Schemes, or Environmental Offset Schemes all work upon the trade of ecological forest services. While the other form of private forest regulation (forest certification schemes) rely upon an eco-labelling approach to send messages to consumers of forest products concerning the sustainability of the product.

## **CHAPTER EIGHT: The Legal Requirements of Forestry Markets**

### **1. Introduction**

Forestry is no exception to the economic interest regulatory trend, with economic instruments increasingly playing a more dominant role in public and private forestry institutions.<sup>1</sup> The term ‘forest market instrument’ is used throughout this chapter to describe transactions in which a forest ecosystem service is traded in return for financial remuneration. Market mechanisms are an appealing tool for regulators, as they promise to deliver both improved environmental outcomes and the necessary finance to do so. There are, however, a number of challenges in designing forest market mechanisms that have the ability to improve forest conditions and management, and deliver the necessary finance to fund such improvements. For forest market mechanisms to be more widely used and applied, the demand for ‘forest ecosystem credits’ needs to be increased. As this chapter will detail, there are a number of avenues open for increasing the demand of forest ecosystem credits. The majority of forest market mechanisms are in the early stages of project implementation. It is, however, anticipated that the introduction of emission trading schemes will generate a market for forest ecosystem services along with other drivers such as environmental offset or environmental banking policy.

### **2. The Emergence of Environmental Economic Regulation**

#### ***A. Economic environmental instrument evolution***

Early environmental regulation was simplistic in nature and design. In essence, it placed restrictions upon certain activities and imposed conditions on the carrying out of other activities.<sup>2</sup> Conventional regulation (command-and-control regulation) is generally believed to promote transparency of procedures, accountability of authorities, and participation of the public, with an overall objective of alignment with the public good.<sup>3</sup> Conventional regulation has, more recently, come under scrutiny for lacking in both efficiency and legitimacy.<sup>4</sup> In terms of efficiency markets, proponents argued that market-based instruments are able to achieve the same outcomes at a lower cost, and (with regard to legitimacy considerations)

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<sup>1</sup> David Brand, ‘Forest Investment and Emerging Environmental Markets’, (paper presented at the second Annual Green Trading Summit, New York, April 7-8 2003); and Jane Scanlon, ‘An appraisal of the NSW Biobanking Scheme to Promote the Goal of Sustainable Development in NSW’, (2007), 4, *Macquarie Journal of International and Comparative Environmental Law*, 71, 89.

<sup>2</sup> Klaus Bosselmann and Benjamin J Richardson, ‘Introduction: New Challenges for Environmental Law and Policy’, in Klaus Bosselmann and Benjamin J Richardson (eds) *Environmental Justice and Market Mechanisms: Key Challenges for Environmental Law and Policy*, (1999), 1, 3.

<sup>3</sup> Ibid.

<sup>4</sup> A Weale, *The New Politics of Pollution*, (1992), Chapter 6.

conservationists have long complained of the less than vigilant monitoring and enforcement of environmental regulations.<sup>5</sup>

In addition to efficiency and legitimacy concerns, there was also a belief that environmental resources were subject to overregulation.<sup>6</sup> Overregulation is blamed for hindering innovation and preventing the development of new approaches.<sup>7</sup> Highly regulated economies were considered to be at a significant disadvantage when compared with less-regulated ones. This was due to the belief that regulation increased transaction costs for industry, and that such systems failed to provide incentives for those who went above and beyond the minimal requirement.<sup>8</sup>

The concerns of efficiency, legitimacy, overregulation, and the lack of progress led to calls for new regulatory approaches (which could be designed to overcome the failings of traditional regulation).<sup>9</sup> Economic regulatory instruments seemed to be the answer, as these promised to generate incentives for ongoing environmental improvement and technological innovation by providing more flexibility – which would promote a wider range of actions from producers and consumers.<sup>10</sup> These new tools were also proposed for their ability to generate income for governments and to directly promote the economically efficient allocation of scarce resources. Economists used the term ‘cost-benefit analysis’ to describe the process that some regulators follow when electing between alternative courses of action. Cost-benefit analyses have conventionally been used to weigh the benefits that would arise from a government project against the costs associated with it.<sup>11</sup> Economic instruments were, thus, a mechanism to implement this theory.

The original advocates for economic regulatory instruments were those with a self-interest in the creation of more flexible approaches (initially industry).<sup>12</sup> Gradually, governments also

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<sup>5</sup> Robyn Eckersley, ‘Markets, the State and the Environment: An Overview’ in Robyn Eckersley (ed) *Markets, the State and the Environment: Towards Integration*, (1995), 8-9.

<sup>6</sup> AW Reitze Jr, ‘Environmental Policy – It is time for a new beginning’, (1984), 14, *Columbia Journal of Environmental Law*, 111, 112-113.

<sup>7</sup> According to Pennington, government intervention can actively suppress the emergence of private approaches through the continued adherence to environmental policy prescriptions that do not allow markets to develop. Mark Pennington, ‘Environmental Markets vs. Environmental Deliberation: A Hayekian Critique of Green Political Economy’, (2001), 6 (2), *New Political Economy*, 171, 186.

<sup>8</sup> Klaus Bosselmann and Benjamin J Richardson, ‘Introduction: New Challenges for Environmental Law and Policy’ in Klaus Bosselmann and Benjamin J Richardson (eds) *Environmental Justice and Market Mechanisms: Key Challenges for Environmental Law and Policy* (1999), 1.

<sup>9</sup> RB Stewart, ‘Models for Environmental Regulation: Central Planning versus Market-based Approaches’, (1992), 19 (3), *Boston College Environmental Affairs Law Review*, 547.

<sup>10</sup> Bosselmann and Richardson, above n3, 7.

<sup>11</sup> For an analysis of the benefits and pitfalls of ‘gross national product’ theory and ‘cost-benefit analysis’ economic theory, see: Sharon Beder, *Environmental Principles and Policies: An Interdisciplinary Approach*, (2006), Chapter 7.

<sup>12</sup> *Ibid.*

started to embrace the use of economic instruments in environmental regulation. Industry's initial enthusiasm waned when it realised that the implementation of such an approach meant the potential imposition of green taxes, environmental charges, or tradeable emission rights.<sup>13</sup> Economic instruments have not (as expected by their proponents) led to a decrease in regulation, but have, instead, involved the re-regulation of the environment through the creation of new institutions and instruments to provide for the operation of taxes, charges, and tradeable rights.<sup>14</sup> As such, economic instruments have suffered the same fate as their regulatory counterparts: increasingly complex rules and regulations, with minimal environmental gains.

### ***B. The development of economic forest instruments***

Following the *Brundtland Report* (1987) and the Earth Summit (1992), there was consensus that the conservation of tropical forests required an integrated management approach.<sup>15</sup> The *Brundtland Report* identified the many interdependencies between economic and environmental administration. In recognition of these interdependencies, the report urged nations to anticipate and prevent environmental damage by integrating environmental policy with economic, trade, energy and agricultural policy.<sup>16</sup> This approach was thought to be able to circumvent environmental damage by incorporating environmental considerations into all facets of government decision-making processes. The *Brundtland Report* encouraged governments to make more effective use of economic instruments to promote clean production.<sup>17</sup>

Around the same time at the international development agencies, debates were taking place over the best means to address poverty concerns and associated environmental degradation. There seemed to be a common understanding that the alleviation of poverty was central to ensuring the conservation of tropical forest areas. Again, this belief was founded on the principles of integrated sustainable management. In the forestry context, the two instruments designed to implement this approach were integrated conservation and development projects, and sustainable forest management.<sup>18</sup> These two instruments were designed to holistically manage the human forest relationship and took a considered and insightful approach to

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<sup>13</sup> Bosselmann and Richardson, above n3, 7. Also see: Ross Ashcroft, 'Carbon Capture and Storage: A need for re-conceiving property interests and resource management in the Australian legal system', (2008), *Journal of the Law Association for Asia and the Pacific*, 48, 61 where the author discusses industries response to the costs associated with carbon capture and storage.

<sup>14</sup> Bosselmann and Richardson, above n3, 4.

<sup>15</sup> Sven Wunder, *Payments for environmental services: Some nuts and bolts*, CIFOR Occasional Paper No. 42, (2005).

<sup>16</sup> Eckersley, above n5, 264-266.

<sup>17</sup> World Commission on Environmental and Development, *Our Common Future*, (1990), 264-266.

<sup>18</sup> Wunder, above n1 5, 1.



regulation. Unfortunately, these approaches did not deliver large-scale benefits for forests or peoples, so new regulatory approaches were again called for. The concept of payments for environmental services emerged. This core idea of payments for ecosystems' services is that users of ecosystem services make direct, contractual, and conditional payments to local landholders who, in return, adopt practices that secure ecosystem conservation and restoration.<sup>19</sup>

This chapter focuses on the operation of one form of economic instrument – that of forest markets. Forest market mechanisms have been justified on the basis that their inherent flexibility increases the recognition of a wide range of forest goods and services and, thus, leads to improved environmental outcomes.<sup>20</sup> Furthermore, markets mechanisms are seen as a tool that engages the private sector in environmental management by creating economic incentives for participation in various schemes. Forests provide a number of environmental services and markets for the following forest ecosystem services that have started to emerge:

- Carbon sequestration
- Biodiversity conservation
- Watershed protection
- Landscape values
- Bundled forest services<sup>21</sup>

The incidence of climate change has been described as the world's biggest market failure.<sup>22</sup> This is because greenhouse gas emissions have historically been considered as a market externality (meaning that the global rise of greenhouse emissions and the associated social, environmental, and economic implications have not been factored into the economic decision-making process). Proponents of market-based regulation were successful in negotiating a global regime to address rising emission levels. Forest deforestation and degradation is now being seen by some as yet another example of market failure.<sup>23</sup> The degradation of forests has continued, according to market proponents, for two reasons: many forest goods and services

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<sup>19</sup> Ibid.

<sup>20</sup> See generally: Stefano Paigola, Natasha Landell-Mills and Joshua Bishop, 'Market-based Mechanisms for Forest Conservation and Development', in Stefano Paigola, Natasha Landell-Mills and Joshua Bishop (eds) *Selling Forest Environmental Services: Market-based Mechanisms for Conservation and Development*, (2002).

<sup>21</sup> Natasha Landell-Mills and Ina Porras, *Silver Bullet or Fools' Gold? A global review of markets for forest environmental services and their impacts on the poor*, International Institute for Environment and Development, 2002.

<sup>22</sup> Nicholas Stern, 'The Economics of Climate Change', 2008, 98 (2), *American Economic Review: Papers and Proceedings*, 1.

<sup>23</sup> Paigola, above n20, 2 and Michael Richards, 'Can Sustainable Tropical Forestry be Made Profitable? The Potential and Limitations of Innovative Incentive Mechanisms', (2000), 28 (6), *World Development*, 1001, 1003.

are considered to be positive externalities; and forest services are considered to be public goods.<sup>24</sup>

A 'positive externality' is any uncompensated benefit.<sup>25</sup> Positive externalities associated with forest protection include (as examples) erosion control, reduced risk of flooding downstream, and water quality maintenance.<sup>26</sup> Forest services are viewed as externalities because prices paid for forest goods do not represent the full cost of forest services. Similarly, when forest land is cleared for agricultural or rural expansion, the loss of forest services is usually unaccounted for. Markets typically fail to compensate those who produce positive externalities due to the absence of property rights, or other legal means to require payment for services rendered.

Forest environmental services can also be characterised as 'public goods'. A public good is a special type of externality, and is distinguished from other categories of externality due to their non-excludability and non-rivalry characteristics. Fisher, Turner and Morling provide clear examples for the terms 'rival' and 'excludable': "To be 'rival' means that if I use this good, there is less of it for you to use. To be 'excludable' means that I can keep you from using this good".<sup>27</sup>

Economists believe that government regulation can be justified when the service in question is a public good.<sup>28</sup> As forest services are mainly public goods, governments have taken direct control over their management and use. This has been achieved through the creation of public ownership rights and frameworks defining extraction and use rights. As the area of land under public ownership expands and the associated costs of maintaining such areas increases, governments are looking for alternative sources of income to manage them. This is driving the creation of markets for environmental services.

Where a market product is non-excludable and non-rival in nature, market formation will be difficult, because no real incentive exists to pay the supplier of the service. As long as an individual cannot be excluded from using a good, they have little reason to pay for access. Similarly, where goods are non-rival, consumers know that, where someone else pays, they will benefit.<sup>29</sup> Those who use services without paying are deemed to 'free-riders', and it is

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<sup>24</sup> Pagiola above n20.

<sup>25</sup> Pigou's seminal work in the area discussed the concept of 'environmental externalities', and this theory has been used to justify the basis for pollution taxes. A Pigou, *The Economics of Welfare*, (1932).

<sup>26</sup> Landell Mills and Porras above n21, 7.

<sup>27</sup> Brendan Fisher, R Kerry Turner and Paul Morling, 'Defining and classifying ecosystem services for decision making', (2009), 68, *Ecological Economics*, 643, 647.

<sup>28</sup> Landells Mills and Porras, above n21, 8.

<sup>29</sup> Landell Mills and Porras, above n21, 8.

suggested that where everyone adopts a free-riding approach, the willingness to pay for a public goods will be zero and the product will not be supplied.<sup>30</sup>

However, this is not entirely accurate in relation to the provision of environmental services. This is because the environment will continue to provide services irrespective of payments tendered by those using the service. If payments are made to improve the management and ensure the long-term supply of such services, then (in this instance) the user payments are more directly attributable to the production of the service.

To overcome non-excludability and non-rivalry issues, environmental markets require the creation of clear and enforceable property rights over natural resources.<sup>31</sup> The holders of these rights then have an incentive to manage the resource more efficiently. This line of reasoning can be linked to Hardin's "tragedy of the commons" analysis.<sup>32</sup> This concept proposed that when things are left open to the public, they are wasted by over-use or under-use. In such instances, there is minimal investment in property because there is no security associated with ownership. Interests may be lost at any time. Furthermore, unclear ownership rules prevent market exchanges. This ultimately results in users grasping what is available for capture in the short term, leaving behind a wasteland.<sup>33</sup> Hardin's theory has been used to justify the need for innovative property-based interests in natural resources.<sup>34</sup>

### **3. Emerging Economic Forest Instruments**

#### ***A. The meaning of economic incentive instruments***

Economic instruments may take a variety of forms.<sup>35</sup> Despite this, all types of economic instruments use financial incentives or disincentives as the motivator for compliance. The Organization for Economic Cooperation and Development (OECD) deems 'economic instruments' as a means of promoting more cost-efficient decision-making, and creating 'level playing fields' for trans-national economic activity. It defines 'economic instruments' as those that affect costs and benefits of alternative actions open to economic agents, with the effect

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<sup>30</sup> Ibid.

<sup>31</sup> According to Bosselmann and Richardson (above n3, 7), Coase's theory can be interpreted to mean that bargaining and compensation among property rights holders is the most efficient way to resolve independent uses of the environment so as to maximise net social welfare. See Bosselmann and Richardson, 7.

<sup>32</sup> The phrase 'tragedy of the commons' originates from: Garrett Hardin, 'The Tragedy of the Commons', (1968), *Science Vol. 162*, 1243-48.

<sup>33</sup> Carol Rose, 'The Comedy of the Commons: Custom, Commerce and Inherently Public Property', (1986), 53 (3), *The University of Chicago Law Review*, 711, 712.

<sup>34</sup> There are even instances where the development of property based interests in natural resources had led to improved management. For example, in relation to river management, the creation of property rights had led to improvements in terms of maintenance of fish stocks and the reduction of pollution. See Pennington above n7, 184.

<sup>35</sup> Paul Ali and Kanako Yano, *Eco-Finance: The legal design and regulation of market-based environmental instruments*, (2004), 7.

of influencing behaviour in a way favourable to the environment.<sup>36</sup> An ‘economic instrument’ is, therefore, a tool which requires that a certain activity be carried out. It either provides an incentive for compliance, or a disincentive of failing to comply.<sup>37</sup> The focus of this chapter will be on the operation of ‘market’ economic instruments; however, to clarify the role of markets in regulation, other economic forest instruments will also be briefly examined.

Panayotou<sup>38</sup> classifies economic-incentive instruments into the following categories:

- Property right-based systems – this involves the creation of clear property rights over environmental services.
- Market creation – this requires creating property rights, recognised in the form of credits or certificates, that can they be traded among market participants.
- Fiscal instruments charge systems – to encourage responsible behaviour through full or partial cost pricing of consumption or production.
- Financial instruments – these aim to mobilise financial revenue for conservation and environmental protection through the use of green funds, favourable interest rates, and soft loans.
- Liability instruments – these work by creating economic penalties for failing to comply with regulatory standards.
- Performance bonds and deposit refund systems – these require the posting of a deposit, which is refundable only if the parties comply with environmental obligations.

Market-based instruments minimise the aggregate cost of achieving a given level of environmental protection and provide dynamic incentives for the adoption and diffusion of cheaper and better control technologies.<sup>39</sup> Within the market-based instrument category, there are two broad forms.<sup>40</sup> Firstly, systems based on the ‘polluter pays principle’ are ones that set a charge to reflect the cost value of damage caused to the environment by the polluter. Thus, the cost of mitigating the negative environmental outcomes is passed onto the parties responsible for depleting or damaging the environmental resource.

The second model involves creating a market that allows for trade in credits or permits. This type of system requires the creation of a baseline that determines the level of activity which

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<sup>36</sup> Bosselmann and Richardson, above n3, 7.

<sup>37</sup> See generally: Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, (1998), 70.

<sup>38</sup> T Panayotou, *Economic Instruments for Environmental Management and Sustainable Development*, (1994).

<sup>39</sup> Nathaniel Leohane, Richard Revesz and Robert Stavins, ‘The Choice of Regulatory Instruments in Environmental Policy’, (1998), 22, *Harvard Environmental Law Review*, 313, 314.

<sup>40</sup> European Commission Directorate-General for Environment, *Potential Benefits of Integration of Environmental and Economic Policies: An incentive-based approach to policy integration*, (1994), 7

can be carried out within a particular sector. Participants in these schemes are allocated a number of credits and may only engage in the specified activity up to the level of credits they possess. If the participants reduce their level of activity, they can sell the excess credits to another scheme participant. Those participants who fail to modify are forced to pay for additional credits.<sup>41</sup>

### **B. Recognised forest ecosystem services**

“Forests regulate local and global climate, ameliorate weather events, regulate the hydrological cycle, protect watersheds and their vegetation and water flows and soils, and provide a vast store of genetic information much of which yet to be uncovered”.<sup>42</sup>

It is recognised that forests provide a number of different services beneficial to human existence. Broadly, forest values associated with forest areas can be classified into: ecological and environmental benefits; economic and trade values; and social and cultural values. More specifically, forest goods and services include timber, fuel wood, non-timber forest products, genetic information, recreation/tourism, watershed, climate, biodiversity, amenity; and non-use values.<sup>43</sup> Economic instruments have been developed to recognise and attribute a monetary value to some forest services. As discussed above, economic regulatory instruments can take many forms – these will be examined briefly, with the focus on market-based approaches.

To create economic incentives or disincentives, the relevant forest product must be clearly definable. Forest values and services are not always capable of being expressed in clear and definable ways. This is because forest values are often appreciated in an indirect manner; forests are also commonly valued for their inherent worth<sup>44</sup>. For this reasons, economic instruments have only emerged where the forest service is definable and the law has the ability to recognise this service by attaching rights and responsibilities to its use and management. The following forest services have had economic instruments created and implemented:<sup>45</sup>

- Economic incentives that recognise forests’ ability to promote biodiversity
- Economic incentives that recognise forests’ ability to store carbon

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<sup>41</sup> European Commission Directorate-General for Environment, *Potential Benefits of Integration of Environmental and Economic Policies: An incentive-based approach to policy integration*, (1994), 7.

<sup>42</sup> Secretariat of the Convention on Biological Diversity, *The Value of Forest Ecosystems*, Convention on Biological Diversity Technical Series No 4, 2001, 1.

<sup>43</sup> Secretariat of the Convention on Biological Diversity, *The Value of Forest Ecosystems*, Convention on Biological Diversity Technical Series No 4, 2001, 46.

<sup>44</sup> Secretariat of the Convention on Biological Diversity, *The Value of Forest Ecosystems*, Convention on Biological Diversity Technical Series No 4, 2001, 3.

<sup>45</sup> Landell Mills and Porras, above n20.

- Economic incentives that recognise forests' ability to provide watershed protection
- Economic incentives that recognise the value associated with forest landscape beauty

### **C. Economic instruments for forest biodiversity conservation**

Forests (and in particular tropical forests) are major locations of biological diversity and environmental services.<sup>46</sup> The ongoing loss of biological diversity across the planet is serious, as evidenced by the Convention on Biological Diversity and its associated implementing institutions. In 2002, the Conference of the Parties of the Convention on Biological Diversity adopted a strategic plan to achieve (by 2010) a “significant reduction of the current rate of biodiversity loss as the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth”.<sup>47</sup> The findings of the Millennium Ecosystem Assessment were that:

“... biodiversity loss, and in particular the loss of species diversity and transformation of habitats, is likely to continue for the foreseeable future, and certainly beyond 2010 ... Progress towards the 2010 biodiversity target is impossible.”<sup>48</sup>

The Millennium Ecosystem Assessment concluded that there has been a failure by the international community to protect and conserve remaining biodiversity. To tackle the ongoing threats to biodiversity, improved compliance and implementation with existing environmental regulatory instruments (command-and-control, market or otherwise) are needed.<sup>49</sup> Thus, there is an impetus for the wider implementation of economic instruments aimed at increasing or improving biological diversity within specified areas.

Economic instruments aimed at improving biological diversity have taken a number of different forms. There are many publications detailing individual projects whereby economic instruments have been used to achieve better environmental outcomes.<sup>50</sup> The global review of

<sup>46</sup> Secretariat of the Convention on Biological Diversity, *The Value of Forest Ecosystems*, Convention on Biological Diversity Technical Series No 4, 2001, 1.

<sup>47</sup> *Convention on Biological Diversity: Summary of the Second Global Biodiversity Outlook* UNEP/CBD/COP/8/12 (2006) [ 3].

<sup>48</sup> *Convention on Biological Diversity: Summary of the Second Global Biodiversity Outlook* UNEP/CBD/COP/8/12 (2006) [20] and [21]. ← do you have an author or authoring body for these citations? [Note: not yet included in bibliography.]

<sup>49</sup> *Convention on Biological Diversity: Summary of the Second Global Biodiversity Outlook* UNEP/CBD/COP/8/12 (2006) [21].

<sup>50</sup> For example, see the eleven case studies in: Stefano Pagiola, Joshua Bishop and Natasha Landell-Mills (eds) *Selling forest Environmental Services: Market-based Mechanism for Conservation and Development*, (2004). The most commonly touted example is: Ken Chomitz, Esteban Brenes and Luis Constantion, *Financing Environmental Services: The Costa Rica Experience and its implications*, (1998), World Bank <http://www.elaw.org/system/files/Financing.Environmental.Services.pdf> at 20 February 2009. This example is praised for mobilising finance to local community members to carry out reforestation, natural forest management, and forest regeneration/forest protection practices.

such projects conducted by Landell-Mills and Porras noted that, in many instances, credible data demonstrating improved environmental and social outcomes were not included within the individual project analysis: “The studies examined offered superficial reviews of economic, social and environmental benefits with virtually no assessment of costs”.<sup>51</sup> A cautious approach must be taken in supporting the use of economic instruments that aim to enhance biological diversity.

The following economic instruments were identified by Landell-Mills and Porras in the biodiversity enhancement context: biodiversity business shares; biodiversity credits/offsets; biodiversity-friendly products; bioprospecting rights; conservation easements; debt-for-nature swaps; development rights; lease conservation concessions; land acquisition; management contracts; protected areas; and research permits.<sup>52</sup>

#### ***D. Forms of economic instruments used to enhance biological diversity***<sup>53</sup>

- Biodiversity business shares – these instruments capture the willingness that exists within society to pay for biodiversity protection. Under this approach, companies are established whose main objective is biodiversity conservation. Such companies sell shares, and the price of the share price determines the value of biodiversity protection and the market demand for such products.
- Biodiversity credits/offsets – these systems are part of regulatory frameworks that prescribe the manner in which biodiversity is to be managed. Within these systems, market values are attributed to biodiversity rights when a demand for these rights exists.<sup>54</sup>
- Biodiversity-friendly products – these systems use existing markets to determine the willingness of consumers to pay a higher premium for products generated in a manner consistent with biological diversity protection.
- Bioprospecting rights – these systems sell a right allowing for collection and testing of genetic material from designated forest areas. Some systems will require a share in the profits generated from the commercial production of any forest goods.
- Conservation easement – governments entice landowners to manage land in a manner consistent with promoting biological diversity by providing economic assistance.

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<sup>51</sup> Landell- Mills and Porras, above n21.

<sup>52</sup> Ibid, 29-31

<sup>53</sup> Ibid.

<sup>54</sup> An example of this type of system is evident in New South Wales under the *Threatened Species Conservation Act 1995* (NSW) (TSC Act). This act establishes a system for biodiversity banking. For further explanation of such systems see: Rowena Maguire, ‘Environmental Offsets in Queensland: New Mechanisms for Managing Natural Resources?’, (2007/2008), 13 (61), *Queensland Environmental Practice Reporter*, 160.

- Debt-for-nature swap – governments purchase discounted developing country debt, which is exchanged for domestic financial resources to invest in conservation.
- Land lease/conservation concession – this occurs when governments provide leases on concessional terms that require the sustainable use of the forest area.

A number of barriers exist that prevent the wider use of economic instruments in the biodiversity protection context – these include: unclear property rights; lack of monitoring and enforcement; complex stakeholder’s participation;<sup>55</sup> and low capacity for service delivery and cultural resistance.<sup>56</sup> Furthermore, the form of biodiversity services means that these are rarely consumed by a clearly identifiable clientele.

### ***E. Economic instruments for forest carbon***

The Framework Convention on Climate Change and the Kyoto Protocol, in association with the Conference of the Parties’ decisions, have created an international market for carbon.<sup>57</sup> The focus of this regimen is a reduction of global greenhouse gas emissions. Therefore, the carbon regime is not concerned with the wide abundance of forests services and values, but only their carbon-related values. Forestry practices are included within the framework due to their ability to sequester carbon. Currently, the framework allows participants to account for the following forestry practices: reforestation, afforestation, and certain land-use change activities. However, the cumbersome approvals’ process and uncertainty surrounding the scientific credibility of awarding carbon credits from forestry practices has resulted in few countries implementing the rules created by the international regime.<sup>58</sup>

At the international level, there is renewed interest in accounting for avoided deforestation in developing countries (known as the Reduced Emissions from Deforestation and Degradation initiative).<sup>59</sup> This mechanism will differ from existing carbon forestry rules because it will create incentives to avoid deforestation. The creation of economic instruments that reward participants for *not* carrying out a certain activity is fraught with complications; and this challenge is further compounded by the difficulty associated with calculating emission reductions from forest activities.<sup>60</sup> To speed up the process and overcome a number of these

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<sup>55</sup> Jeffrey Sayer, Unna Chokkalingam and John Poulsen ‘The restoration of forest biodiversity and ecological values’, (2004), *Forest Ecology and Management*, 3.

<sup>56</sup> Landell Mills and Porras, above n21.

<sup>57</sup> See Chapter Six for an in-depth discussion of this topic.

<sup>58</sup> See: Charlotte Streck, ‘Forest, Carbon Markets and Avoided Deforestation: Legal Implications’, (2008), 3, *Carbon and Climate Law Review*, 239, 240.

<sup>59</sup> This concept is also covered in depth in Chapter Five.

<sup>60</sup> For further analysis on this point, see: Robert O’Sullivan and Charlotte Streck, ‘Conservation Carbon: A New Voluntary Market Mechanism to Protect Forests’, (2008), 3, *Carbon and Climate Law Review*, 312, 315-316.



barriers, it has been suggested a new instrument (such as a ‘Carbon Conservation Mechanism’) could be created.<sup>61</sup>

The Carbon Conservation Mechanism would be a voluntary scheme based on a payment for ecosystem services approach. This allows the mechanism to consider not only carbon storage capacity of forests, but also other forest services (such as biodiversity and soil and water quality). This would be achieved by creating a market for verified conservation credits (representing a tonne of carbon dioxide or equivalent). For the credits to become verified, a number of qualitative criteria (linked to promoting other forest services) would need to be met before the credits were issued.<sup>62</sup>

The carbon conservation mechanism would be different from any future reduced emissions from deforestation and degradation mechanism, because it would allow for credits to be generated from forests that are not in immediate threat of deforestation, so long as that forest ecosystem provides other important ecosystem services. Thus, the carbon conservation mechanism is more inclusive of all forest values (as opposed to current carbon forestry rules that focus solely on carbon). To address ‘additionality’<sup>63</sup> concerns within the existing carbon market, future reduced emission from a deforestation and degradation mechanism would only recognise credits from areas where deforestation is imminent.<sup>64</sup>

O’Sullivan and Streck note that the operation of such a mechanism would be through voluntary engagement. Creating market demand for these types of credits would require consideration. These authors suggest two avenues where voluntary purchases of such credits might occur:

1. Existing retail voluntary carbon markets – these markets operate due to corporate responsibility and individual business commitments to sustainability. Airlines, travel agencies, retail chains, banks and the automotive sector have all felt it necessary to engage within existing voluntary carbon markets.
2. Within greening compliance markets under the European Union Emissions Trading Scheme or the Kyoto Protocol – reform of greening credit compliance regulation could be carried out to address current environmental and social considerations (criticisms

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<sup>61</sup> See *Ibid.*, which outlines the nature, requirements and processes associated with such a mechanism.

<sup>62</sup> *Ibid.*, 316.

<sup>63</sup> ‘Additionality’ requires that the activity is *additional* to normal practice. Therefore, if an area were not under imminent threat of deforestation, the additionality requirements would not be satisfied.

<sup>64</sup> See n O’Sullivan and Streck, above n60, 317.

of the scheme). The introduction of verified conservation credits could be used to address these concerns.<sup>65</sup>

#### ***F. Economic instruments for forest watershed services***

Forests are considered by many to be important in the provision and health of watersheds. This is because forests are associated with assisting in the following:<sup>66</sup>

- Water flow regulation – maintenance of dry season flows and flood control
- Water quality maintenance – sediment load control, nutrient load control (e.g. phosphorous and nitrogen), chemical load control, and salinity control
- Erosion and sedimentation control
- Land salinisation reduction/water table regulation
- Maintenance of aquatic habitats (e.g. maintaining water temperature, shading river/streams, ensuring adequate woody debris in water)

The global review conducted by Landell-Mills and Porras found that there was limited scientific basis for these assumptions. The review concludes that the role of forests in watershed health and provision is dependent upon a range of site-specific factors such as climate, terrain, soil, composition, forest management, and access to road and transport systems.<sup>67</sup> The existence of a forest is not unequivocally linked to improved watershed values. Pagiola also makes this point in his assessment of the market for water services in Costa Rica.<sup>68</sup>

“The main remaining weakness, which affects both the present effectiveness of the program and its future sustainability, is the lack of reliable and precise qualitative and quantitative information about the links between forest cover and water services”.<sup>69</sup>

The study conducted by Landell-Mill identifies a number of economic instruments to promote watershed values in forests.

#### ***G. Forms of economic instruments used to enhance watershed values***<sup>70</sup>

- Best management practice contracts – contracts negotiated among watershed landholders and downstream beneficiaries setting out detailed ‘best management practices’ that need to be implemented in return for set payments.

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<sup>65</sup> For further information on the greening compliance market see *Ibid*, 319.

<sup>66</sup> Landell Mills and Porras, above n21, 112.

<sup>67</sup> Landell Mills and Porras, above n21, 114.

<sup>68</sup> Though the precautionary principle could be used as a basis for arguing that lack of full scientific data on forests and watersheds should not operate to restrict conservation of forest areas containing watershed values. <– meaning unclear.

<sup>69</sup> Stefano Pagiola, ‘Paying for Water Services in Central America: Learning from Costa Rica’, in Stefano Pagiola, Joshua Bishop and Natasha Landell-Mills (eds) *Selling Forest Environmental Services: Market-based Mechanisms for Conservation and Development*, (2004), 37, 56.

<sup>70</sup> Landell Mills and Porras, above n21, 116.

- Salinity-friendly products – where payments for forests’ salinity control function are piggybacked onto sales of existing commodities.
- Salinity credits – these operate within offset regulatory framework requiring polluters to correlate the amounts of credits in their possession with their emission levels.
- Salmon habitat restoration contract, and salmon habitat credits – where landholders receive incentives to manage land for salmon habitat.
- Salmon-safe products – where payments of forest salmon habitat protection function are piggybacked onto sales of agricultural produce.
- Transpiration credits – used to commercialise a forest’s role in evapotranspiration and water table regulation. Transpiration credits are supplied through tree planting in critical points of catchments.
- Water rights – creates a regulatory system that assigns property rights to water use and management.
- Watershed lease – where land in watersheds is leased by downstream beneficiaries for watershed protection activities.

The biggest driver behind the development of watershed markets is a ‘demand’ for these services. Demand for watershed markets accounts for 50% of the market’s development.<sup>71</sup> Therefore, the perceived linkages between watershed health and forest cover are valued highly by participants within schemes. Despite the lack of clear environmental benefits associated with protecting forest watershed values, a number of social improvements can be identified as a result of watershed markets. These include direct health benefits, such as improved drinking water, and indirect health benefits, such as improved agricultural and fisheries production. Furthermore, the creation of such a market provides an opportunity for community outreach programs that increase environmental awareness and education, and provide on-the-ground training in land-use management practices.

A number of other barriers also exist in expanding watershed market development: dealing with the large number of stakeholders involved in watershed use; the lack of cost-effective implementing institutions; poorly defined and insecure property rights; lack of a clear and comprehensive regulatory frameworks; lack of scientific information on forest-water linkages; and lack of stakeholder participation.<sup>72</sup> Before establishing forest watershed markets, the literature suggests that it would be advisable to carry out a study of the effect on forests on watershed values in the particular region and to identify the expected objectives of schemes (be they solely environmental or otherwise).

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<sup>71</sup> Landell Mills and Porras, above n21, 136.

<sup>72</sup> Ibid, 145.

## **H. Economic instruments for forest landscape beauty**

Markets for landscape beauty are not as developed as markets for other forest values.<sup>73</sup> This could be explained by social attitudes that assume a right to appreciate forest landscape beauty without contributing to the cost of preserving and conserving it. Markets reflect social values, and it is unlikely that society will deem it appropriate to pay for forest landscape beauty in the near future. However, in certain instances, society has demonstrated a willingness to pay for forest landscape beauty. This is evidenced by the growth and development of the eco-tourism market. The global growth of ecotourism-related travel has created a market incentive to protect and/or enhance certain forest areas. The payment for forest landscape beauty is determined by the willingness of visitors to pay for access to forest areas. There are many examples that demonstrate visitors are willing to pay for certain nature experiences.<sup>74</sup>

In general, private tour operators and service providers (i.e. accommodation and meal providers) have benefited the most from the expansion of ecotourism-related travel. Landholders of forest areas have not shared in the increased revenue from eco-tourism sources.<sup>75</sup> Again, this is because, traditionally, visitors to natural areas have not paid for access rights. Nominal entrance fees are charged to visitors of World Heritage and other protected areas. The revenue generated from these fees is generally used to contribute to the maintenance costs associated with managing them.

In terms of exploring the potential for further revenue-generating activities for forest landscape beauty, a fundamental question exists: whether we, as a society, are comfortable with being charged to enter public natural areas that are the common property of society as whole.

## **4. Forest Market Design and Governance Considerations**

### **A. Suitability of the market mechanism to address environmental activity**

For any type of market to successfully operate there must be a demand for the service being provided. In the forestry context, creating a demand for forest services is a challenging task.

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<sup>73</sup> Originally, the US Forest Service (Department of Interior) used the scenic amenity value of forests to convince local communities that endless fir/pine forests, imposed on the community by commercial forestry, was a socially valuable and beautiful thing. Michael Tarrant and Ken Cordell, 'Amenity Values of Public and Private Forests: Examining the Value-Attitude Relationship', (2002), 30 (5), *Environmental Management*, 692.

<sup>74</sup> One of the best-known examples is the eco-tourism market based around visiting gorillas in the wild in Rwanda. The habitat of the gorillas (mountain forest regions) was being destroyed as a result of civil conflict. The protection of forest areas was funded by revenue generated from eco-tourism initiatives. For further examples, see: Patrick Durst, et al (eds), *In Search of Excellence: Exemplary forest management in Asia and the Pacific*, Food and Agricultural Organization of the United Nations and Regional Community Forestry Training Centre for Asia and the Pacific, (2005).

<sup>75</sup> Landell Mills and Porras, above n21, 168.

This is because forest services have typically not been incorporated within economic valuation frameworks. The economic value of an item or service is measured by the summation of many individuals' willingness to pay for such item or service. In turn, this willingness to pay reflects individuals' preferences for the item or service in question.<sup>76</sup> Thus, economic valuation in the environmental context is about measuring the preference of people who will pay to induce an environmentally sound practice and or to avoid unsustainable or damaging environmental practices.

The lack of economic value being attributed to forest services has resulted in a widely held perception that forest services are of a public nature and, therefore, no cost arises from their use. As users of forest services are not liable for payment for the use of the forest service, as it currently stands, regulator intervention will be required to create a demand for forest services coupled with an acceptance to pay for these services. The most crucial aspect, therefore, is a market demand for the enhancement or preservation of an existing forest service that is backed up by evidence of willingness to pay for this service.

Demand and a willingness to pay for forest services can arise in two instances: under private voluntary investment, or as a result of government intervention. Private voluntary investment is usually made on the premise that the item or service is of economic worth, and that this worth will not decrease in value. There is some evidence of voluntary investment in reforestation and afforestation initiatives.<sup>77</sup> The method that has been more widely used in this context for creating a demand and willingness to pay for forest ecosystem services is through regulatory intervention. Regulatory intervention is usually performed by a government-like institution.

In Costa Rica, the government intervened to create a market demand for forest ecosystem services by providing finance for activities that enhanced and or preserved forest ecosystem services. The government financed these activities by diverting 3.5% of a tax from fossil fuel sales (around \$US 10 million a year), together with grants from a number of international institutions to initiate the *Pago por Servicios Ambientales* (PAS) program.<sup>78</sup> Forest Law N° 7575 (enacted in 1996) explicitly recognised four environmental services provided by forest ecosystems: (i) mitigation of greenhouse gas emissions; (ii) hydrological services (including provision of water for human consumption, irrigation and energy production); (iii) biodiversity conservation; and (iv) provision of scenic beauty for recreation and ecotourism. Holders of

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<sup>76</sup> David W Pearce, *Economic Values and the Natural World*, (1993), 13.

<sup>77</sup> See generally: Elizabeth Harris, *The voluntary carbon offsets market: An analysis of market characteristics and opportunities for sustainable development*, International Institute for Sustainable Development, (2007).

<sup>78</sup> Pagiola, above n69, 713.

forest areas who managed their land, according to the management criteria aimed at enhancing these four services, would become eligible for land management payment. The PAS program envisaged that all beneficiaries of environmental services would pay for the services they received, which would ultimately finance the payment made to landholders who enhance the forest services.<sup>79</sup> This example demonstrates one way in which government intervention can be used to create a demand and a willingness to pay for forest ecosystem services.<sup>80</sup>

In Queensland, Australia, the government has taken a different interventionist approach that attempts to foster a market for forest ecosystem services. The government has created a mandatory offsetting regime, which requires that the effects of certain developments be offset.<sup>81</sup> This, thus, provides an opportunity for landholders who wish to manage their land to meet certain ecological criteria to do so, and then be financially rewarded for it. Landholders are financially rewarded when developers buy credits from them to meet their own offset requirements. It should be noted, though, that this approach does not provide for the preservation of existing forest services. Instead, it provides for degraded forest land to be improved to meet offset requirements. Therefore, essentially, a swap occurs so that the quantity of forest ecosystem services does not alter when development take place. This, of course, raises questions about environmental effectiveness.

Both of these government interventionist approaches artificially contribute to the creation of a demand and willingness to pay for the preservation and/or enhancement of forest ecosystem services. Analysis of these two regimens demonstrates:

1. That government support for the creation of the environmental market can be important for establishing a demand, and a willingness to pay, for forest ecosystem services. If sustainable forest management is accepted as a goal of society, then a mixed or integrated policy approach (including regulatory intervention and institutional reform providing for the operation of a market mechanism) will be necessary to achieve that goal.<sup>82</sup> The determination of

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<sup>79</sup> This objective has been only partially fulfilled; much of the finance to landowners who manage forest areas to provide services is generated from government and other donor funds. Ibid.

<sup>80</sup> For an analysis that examines transferring this type of regulation to Papua New Guinea, see: Amelia Thorpe and Kristy Graham, 'A payment for ecosystem services scheme in Papua New Guinea: incorporating lessons from Costa Rica's PSA' (Paper presented at the New Zealand Centre for Environmental Law Conference 2009: Property Rights and Sustainability), Auckland, New Zealand, 16-18 April 2009.

<sup>81</sup> For further detail on the legal requirements and operation of this framework, see: Rowena Maguire, 'Environmental Offsets in Queensland: New Mechanisms for Managing Natural Resources?', (2007/2008), 13 (61), *Queensland Environmental Practice Reporter*, 160; Rowena Maguire, 'The Compatibility of Leasehold and Freehold Tenure Arrangements with Environmental Offset and Trading Initiatives', (2008/2009), 14 (63), *Queensland Environmental Practice Reporter*, 1; and Rowena Maguire, 'Legal Issues in The Design and Implementation of Environmental Offset and Environmental Trading Frameworks (2008-2009)', 14 (64), *Queensland Environmental Practice Reporter*, 53.

<sup>82</sup> Peter Kinrade, 'Towards Ecologically Sustainable Development: The Role and Shortcomings of Markets' in Robyn Eckersley (ed) *Markets, the State and the Environment: Towards Integration*, (1995), 86.

environmental and social objectives should not be left to the market. It is important to understand the distinction between general community interests and the private interests of market players. In some instances, their interests may be complementary but, in instances where the interests do not coincide, the community interest must prevail.<sup>83</sup> In these cases, the government is usually the most appropriate regulator to ensure that broader public interests prevail.

2. That these schemes will probably not be entirely self-funded and will require additional government start-up finance (and perhaps even donor assistance).
3. The government will require the capacity to implement and monitor this type of scheme.<sup>84</sup>
4. Community participation in the formulation and implementation of policy will be vital to the attainment of sustainable forest management.

No policy approach, regardless of how well conceived and implemented will achieve the anticipated environmental outcomes without community support and value shifts. Neither government nor markets can induce those value shifts; at best, they can merely help to facilitate them.<sup>85</sup> As a final consideration, governments might consider the use of a different economic instrument, such as an environmental tax, to achieve the desired environmental objective. These are the sorts of considerations that should be applied by regulators when examining whether a market mechanism would contribute to addressing unsustainable and/or degrading forest practices.

The imposition of environmental taxes is believed to produce better environmental outcomes than those produced by market instruments.<sup>86</sup> In theory, the choice between carrots (tradeable rights), and sticks (taxes) is mainly a matter of ethical and distributional judgement (rather than of efficiency and pollution control).<sup>87</sup> When a tax is imposed, the government places a charge on every unit of pollution or other activity from the outset (e.g. carbon dioxide).<sup>88</sup> Those who wish to limit their economic liability will be motivated to change their practices. When tradeable rights are used, the government, again, determines the level of activity permitted, and then allocates rights to participants to continue this activity to a certain level.<sup>89</sup> Once this level is reached, participants must trade these rights amongst themselves.

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<sup>83</sup> Kinrade 105

<sup>84</sup> In the Costa Rica context institutional capacity has been credited as one of key contributing pillars to the success of the PSA. Pagiola above n69, 713.

<sup>85</sup> Kinrade above n82, 105.

<sup>86</sup> Ibid, 86. and Stefanie Engel, Stefano Pagiola and Sven Wunder, 'Designing payments of environmental services in theory and practice: An overview of the issues', (2008), 65, *Ecological Economics*, 663, 668-669.

<sup>87</sup> Alan Moran, 'Tools of Environmental Policy: Market Instruments versus Command-and Control' in Robyn Eckersley (ed) *Markets, the State and the Environment: Towards Integration*, (1995), 73, 76

<sup>88</sup> Ibid, 76.

<sup>89</sup> Ibid, 76.

Again, those who wish to limit their economic liability will reduce their actions and sell their rights to other participants. In theory, therefore, both of these approaches should result in the same outcome.

In practice, though, there are many issues associated with the implementation of tradeable rights schemes, namely additionality (paying for activities that would have been conducted in any event) and leakage (shifting environmental-damaging activities elsewhere in space).<sup>90</sup> The implementation of environmental taxes, although less palatable to industry, will involve less cumbersome regulation processes and will not be as susceptible to leakage and additionality concerns.

## ***B. Design considerations for forest market mechanisms***

### *i. Clear environment objectives*

For environmental regulation to achieve desired changes in human behaviour towards the environment, the instrument must establish clear and measurable objectives. The innovative nature of the regulation must not be the most celebrated feature. Fine-tuning of the mechanism should not draw attention away from overarching considerations as to whether the scheme is achieving its objective. To date, the fine-tuning of both traditional and market-based instruments has drawn attention away from the primary purpose of the instrument. It is commonplace within bureaucratic society to have processes to improve processes. These allow for focus on micro-issues and, ultimately, result in loss of focus on the 'big picture' issues. Similarly, the creation of complex requirements makes compliance with the process similarly more complicated.

Rather, the focus should be squarely placed on ensuring that there are improvements in the forest condition. The forest objective should be optimistic, yet realistic in nature. Perhaps more challenging is the aim that the objectives are both consistent with international forest law concepts and inclusive of local interests associated with the forest area.

To improve the effectiveness of the scheme, the objective (as already mentioned) must be clearly defined. In addition to this, the forest commodity<sup>91</sup> to be traded, and the method in which it will be measured, needs to be clearly defined.<sup>92</sup> This requires the use of terminology

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<sup>90</sup> This issues will be discussed in more detail in section 7.5 Also, see: Engel, Paigola and Wunder, above n86, 669.

<sup>91</sup> A major issue for the inclusion of forest-generated carbon credits was based on conceptual challenges. Standard definitions did not exist for forest, deforestation, afforestation, and reforestation. To incorporate forest-generated carbon credits into the trading regime, these definitional issues had to be addressed. See Patrick Graichen, 'Can Forestry Gain from Emissions Trading? Rules Governing Sink Projects under the UNFCCC and the EU Emissions Trading System', (2005), 14 (1), *Review of European Community and International Environmental Law*, 11.

<sup>92</sup> In Costa Rica, the forest commodity was defined to be a bundles service that included forest watershed values, forest biodiversity values, forest carbon values, and forest landscape values. See Paigola 715–716.



that is generically understood, and the avoidance of terms with multiple meanings (for example, the term 'sustainable'). Thus, a suitable objective may be one that requires a measurable increase in forest cover and health.

A clear overarching objective will define the scope and ambit of the scheme's existence.<sup>93</sup> Markets that sell forest eco-system services will generally be established with the end-goal of an improvement in forest ecosystem health, or an increase in the provision of forest ecosystems' services. Promoting improvement in forest ecosystem health is the preferable goal, because this will mean that there is a 'functional lift' in the quality and quantity of the relevant forest service. Functional lift is the preferable indicator because it measures not only increased activity, but also focuses on the quality of the increased activity. By comparison, if the purpose of the scheme were to only ensure an increase in the production of the forest eco-system service, then this would not be as desirable, because the environmental integrity of the scheme might be called in question.

#### *ii. Environmental and economic effectiveness*

Environmental effectiveness requires that the forest market leads to an actual increase in environmental services compared to a situation that would result without it.<sup>94</sup> Markets that are established on the basis of providing a particular forest service must demonstrate environmental effectiveness to create a marketable forest product.<sup>95</sup> For the market to operate successfully, the forest service must be capable of differentiation from competing forest services. Therefore, the provision of the forest service through the market must be an *improved* forest service to attract an economic value to be affixed to the price. This is normally achieved by introducing management regimens that require that the health of the particular ecosystem service be improved.

Economic efficiency requires that the cost of improving the forest service is compatible with the market cost of the forest ecosystem service,<sup>96</sup> thereby avoiding a situation where the cost of restoring or improving the service is higher than the cost at which it is sold.<sup>97</sup> Economic efficiency must consider the alternative income available if the forest area is used for other

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<sup>93</sup> There are many examples of schemes that are politically driven to achieve both economic and environmental benefits. Many of these fail to identify clear objectives and, as such, fail to deliver economic benefits to local communities and/or environmental benefits to the global community. For further detail, see: Jeffrey Sayer, Unna Chokkalingam and John Poulsen, 'The restoration of forest biodiversity and ecological values', (2004), 201, *Forest Ecology and Management*, 3.

<sup>94</sup> Stefanie Engel and Charles Palmer, 'Payments for environmental services as an alternative to logging under weak property rights: The case of Indonesia', (2008), 65, *Ecological Economics*, 799, 800.

<sup>95</sup> Anantha Kumar Duraiappah, *Markets for Ecosystem Services: A potential Tool for Multilateral Environmental Agreements*, International Institute for Sustainable Development, (2006), 13.

<sup>96</sup> *Ibid*

<sup>97</sup> For further analysis of economic models, see: Colin Hunt, 'Economy and ecology of emerging markets and credits for bio-sequestered carbon on private land in tropical Australia', (2007), *Ecological Economics*, 1.

purposes (for example, income from timber). Ideally, forest markets would create monetary incentives that are approximately equivalent to the income generated from past activities. If old activities remain more profitable, then participation in forest markets schemes is only likely if the more profitable forest activity continues.<sup>98</sup>

### **C. Good governance requirements for forest market mechanisms**

For markets to operate effectively over forest resources, a number of governance-related considerations must be examined. 'Governance' is a term to broadly define the decision-making procedures and behavioural conventions within established institutions.<sup>99</sup> Environmental governance not only refers to government regulation and law enforcement for conservation, but also involves the political, organisational, and cultural frameworks through which diverse interests in natural and cultural resources are coordinated and controlled.<sup>100</sup> Good governance requires evidence of transparency, accountability, and the engagement of participants within the scheme.<sup>101</sup> In some instances, governance reform may be required, particularly in developing countries.

It is crucial that forest-based trading regimes are transparent. Transparency requires that the procedures on which decisions are based are as open and clear as possible.<sup>102</sup> This will require making all information about the environmental offset process publicly available. The types of information that should be made available include: information and data used by regulators in the formation of the scheme; information about individual commodity rights and responsibilities; information about the practical operation of the whole scheme; and general information about forest market-based regimes.<sup>103</sup> These will ensure that market-based forest regimes are perceived as legitimate and accountable by participants and the general public.

Accountability requires that the institution and the individuals within the institution are answerable for the activities carried out by it. Liability to answer may also involve reporting to a higher authority, or to those with a vested interest in the institution. The notion of

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<sup>98</sup> Engel, Palmer, above n 94, 800. In this instance, the authors explored the variance in income earned from timber profits in Indonesia. The authors found that lower prices were paid to those with fewer legal rights, or those who did not have the capacity to enforce their legal rights.

<sup>99</sup> Arthur Goldsmith, 'Is Governance Reform a Catalyst for Development?', (2007), 20 (2), *Governance: An International Journal of Policy, Administration, and Institutions*, 165.

<sup>100</sup> Peter Cronkleton, et al, *Environmental Governance and the Emergence of Forest-Based Social Movements*, Center for International Forestry Research Occasional Paper No 49, (2008), 1.

<sup>101</sup> Ibid.

<sup>102</sup> Douglas Fisher, 'Markets, water rights and sustainable development', (2006), 23, *Environmental and Planning Law Journal*, 100, 104.

<sup>103</sup> Douglas Fisher, *Implementing the National Water Initiative: A generic set of arrangements for managing interests in water*, (2006), 19.

accountability also involves the setting of goals and the reporting and publication of results and data.<sup>104</sup> Accountability within market-based forest regimes will require that the institution responsible for providing the forest product creates regular reports about the trade, and ensures they are made available for higher authorities or stakeholders to access.

For forest market-based regimes to receive wide take-up and implementation, there must be appropriate stakeholder engagement.<sup>105</sup> The stakeholders involved in forest trading schemes may include:<sup>106</sup>

- Local communities/landholders who would be responsible for carrying out the work associated with improving the quality of the forest service.
- Local communities/landholders whose individual interests would be affected by the implementation of a forest trading regimen (e.g. access and use rights may be varied as a result of the trading regime).
- Private industry that would buy the forest service.
- Government agencies interested in promoting a particular forest value.
- Parties obligated to participate in a forest-trading scheme (e.g. developers or farmers may be required to provide an offset for their activities).
- Parties responsible for managing the forest area to meet specified objectives and standards.
- Agencies that create policies concerning forest use and management.
- Independent verification and monitoring bodies that ensure that requirements are met.
- Government bodies responsible for registering the interests that environmental offsets create.

The success of forest market-based regimens will be dependent upon stakeholder engagement and participation.<sup>107</sup> Changes to the management and use of forest areas will impact upon current access and use rights held by local communities and other stakeholder groups. It is essential that those stakeholders whose interests are affected by the imposition of a forest-trading regimen be actively consulted to determine their ongoing interests in the forest

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<sup>104</sup> Graeme Hodge and Ken Coghill, 'Accountability in the Privatized State', (2007), 20 (4), *Governance: An International Journal of Policy, Administration, and Institutions*, 675, 676.

<sup>105</sup> See, generally: C Colfer and R Wadley, *Assessing participation in forest management*', Center for International Forestry Research, (1996).

<sup>106</sup> See, generally Stefano Pagiola, Natasha Landell-Mills, and Joshua Bishop, 'Marking Market-based Mechanisms Work for Forests and People', in Stefano Pagiola, Natasha Landell-Mills, and Joshua Bishop (eds) *Selling Forest Environmental Services: Market-based Mechanism for Conservation and Development*, (2002), 261, 274.

<sup>107</sup> See, generally: Sayer, Chokkalingam, Poulsen, above n93, 7.

area.<sup>108</sup> Every effort should be made to ensure that their interests are not overlooked, and that their interests are incorporated into the regulatory framework.<sup>109</sup>

Without adequate consultation with local interest groups, forestry trading regimens will not be able to deliver on stated objectives, because these groups will not understand the potential benefits and incentives that market-based regulation offers. Unless clear incentives are provided for stakeholders, it is unlikely that a change of behaviour will occur. The Pareto optimality criterion, used in neo-classical economics, requires that no one person is worse off than they were before the intervention.<sup>110</sup> If a change of practice is required, groups need to be presented with one of the following incentives to encourage compliance:

- Be financially rewarded for changes to management and use practices.
- Be provided with an alternative supply of the forest service relied upon.
- Improve the productivity or health of the forest service product relied upon through the introduction of management policy, which, in turn, provides an incentive for changed practice.

When examining forest market-based trading regimes, the case studies indicate that the support of local community and stakeholders is essential for a scheme's success.<sup>111</sup> However, engaging the sector that will pay for the improved forest service is also critical. The private sector may become involved in market-based forest trading regimes based on a number of motivations: the belief that such investment will, in the long term, deliver economic gain; a sense of duty to contribute to local community and environmental health; fulfilling an obligation required by law. Despite the origin of the motivation, the success of market-based schemes relies on actively engaging resources from the private sector.<sup>112</sup>

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<sup>108</sup> For example, often-marginalised groups and powerless groups are left out of stakeholder consultation process, and this undermines the equity and legitimacy of market-based approaches. For further information on this topic, see: Esteve Corbera, Katrina Brown and W Neil Adger, 'The Equity and Legitimacy of Markets for Ecosystem Service', (2007), 38 (4), *Development and Change*, 587.

<sup>109</sup> For further information on environmental markets and their contribution to equity and legitimacy, see *Ibid.* 'Legitimacy' is defined as the way in which outcomes are negotiated, administered and accepted by stakeholders; it encompasses issues such as the recognition of stakeholders, the acknowledgment and hearing of their concerns, the participation of stakeholders in decision-making, and the distribution of decision-making power.

<sup>110</sup> Anantha Kumar Duraipappah, *Markets for Ecosystem Services: A potential Tool for Multilateral Environmental Agreements*, International Institute for Sustainable Development, (2006), 9.

<sup>111</sup> Chris Brown, Patrick Durst and Thomas Enters, 'Perception of Excellence: Ingredients of good forest management', in Patrick Durst et al (eds) *In Search of Excellence: Exemplary forest management in Asia and the Pacific*, (2005), 7, 9. This report identifies a number of excellent forest-based projects, and finds that people's participation within schemes a common characteristic among successful forest projects.

<sup>112</sup> For a discussion related to the four conditions that allow markets to function, see: Nicholas Ashford and Charles Caldart, *Environmental Law, Policy and Economics: reclaim the environmental agenda*, (2008), 131. The four conditions are: externalities, perfect condition, perfectly competitive, and ethical and distributional.

The role of the government will also be important depending upon the nature of the forest-trading regimen. This may be designed so that it is compatible with existing forest governmental policy and, furthermore, government policy may, in particular instances, obligate parties to participate in a forest-trading regimen.<sup>113</sup> In this situation, the government may act in a brokering role, generating business for the regimen. Paigola, Landell-Mills and Bishop suggest that the government may play a number of roles in forest-trading regimens (e.g. the buyer of the forest product, the seller, or as the intermediary).<sup>114</sup> Depending upon the structure of the particular forest-trading regimen, the level and role of government involvement will vary. Despite the variance of government involvement, forest-trading regimens should seek to ensure that its objectives and requirements are compatible with existing government policy.

In the context of developing countries, much attention is directed towards improving governance processes; however, debate exists as to the effectiveness of the governance reform in these countries. While there is mounting evidence to suggest that governance reform rarely delivers on its stated objectives, this has not altered the agendas of international aid agencies or other development assistance bodies.<sup>115</sup> There is often great difficulty in targeting local governance reform, due to limited targeting of partners, inappropriate communications, language barriers, resource constraints, cultural differences, and capacity limitations.<sup>116</sup> Often, agencies underestimate the time and political effort required to change governance practices; the economic impacts of such reform are overestimated.<sup>117</sup>

It has been suggested that the overall benefits attained by governance-reform packages are linked to improved transparency, accountability and participation as opposed to increased economic development.<sup>118</sup> Thus, any reforms directed towards improving governance and capacity in developing countries should acknowledge the inherent challenges, and the time and resource commitments, required to enact long-term transformations.

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<sup>113</sup> An example of this is government policy that requires development activity be offset. For an examination of the Queensland Government's approach in Australia, see: Rowena Maguire, 'Environmental Offsets in Queensland: New Mechanisms for Managing Natural Resources?', (2007/2008), 13 (61), *Queensland Environmental Practice Reporter*, 160.

<sup>114</sup> Paigola, Landell-Mills and Bishop, above n20,57.

<sup>115</sup> Marcus Colchester, et al, *Bridging the Gap: Communities, Forests and International Networks: CIFOR Occasional Paper No 41*, Center for International Forestry Research, (2003).

<sup>116</sup> *Ibid* 15.

<sup>117</sup> Arthur Goldsmith, 'Is Governance Reform a Catalyst for Development?', (2007), 20 (2), *Governance: An International Journal of Policy, Administration, and Institutions*.

<sup>118</sup> *Ibid* 181.

## 5. Forest Market Legal Issues

### A. Land tenure

Secure, stable land tenure is perhaps the most fundamental requirement for forest market mechanisms. This is because secure, stable land tenure allows the holder of the land to commit to, and have the capacity to, participate in forest market regulation. Without secure rights, forest users have few incentives, and often lack legal status, for investment in managing and protecting their forest resources. Generally speaking, in developed countries, holders of land have a higher sense of tenure security than holders of land in developing countries.<sup>119</sup> Thus, developing and developed countries face different challenges in relation to tenure security.

### B. Developing countries

In the developing country context, a major barrier to the effective implementation of forest market mechanisms is the lack of secure tenure rights.<sup>120</sup> This has been acknowledged by many international development and environment institutions that regularly implement initiatives to improve tenure security.<sup>121</sup> The lack of secure tenure rights in developing countries is a significant barrier to the implementation of forest market frameworks. Countries where states fail to specify even the most fundamental property rights to land, building sites, and other arable resources, usually experience poor economic growth and persistent poverty.<sup>122</sup> This is for a number of reasons.

Firstly, if no secure tenure rights exist over the forest area that generates the forest market product, there is no guarantee that the service will continue. In this instance, there is no environmental effectiveness, because any benefits obtained by the imposition of a forest market framework may be temporary in nature.<sup>123</sup> Secondly, the lack of secure tenure rights will act as a major disincentive for attracting participants to the scheme. Forest dwellers are unlikely to participate in a scheme aimed at improving the health of the forest ecosystem unless they have a stake in its future. Similarly, it will be more difficult to generate market demand for the forest ecosystem service, as the purchasers of services will view the

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<sup>119</sup> White, Andy, and Alejandra Martin, *Who owns the World's Forests? Forest Tenure and Public Forests in Transition*, Forest Trends, (2002).

<sup>120</sup> Wunder, above n15.

<sup>121</sup> The Rights and Resources Initiative is a group of 10 international bodies that have banded together to address the cross-cutting issues associated with forests, conflict, and climate change; they examine the role of land rights as being part of the solution. For further information on the initiative see the website <http://www.rightsandresources.org/index.php>.

<sup>122</sup> Audun Sandberg, 'Property rights and ecosystem properties', (2007), 24, *Land Use Policy*, 613, 619.

<sup>123</sup> This concern is linked to two concepts, that of 'permeance' and 'additionality', both of which will be discussed in greater detail further on in this section.

investment as neither secure nor environmentally viable without evidence of secure tenure rights.

In developing countries, economic growth increases development – which, in turn, increases the demand for land. As a result, forest areas are cleared to make way for infrastructure and agricultural development, resulting in rapid deforestation and forest degradation. However, it is suggested that at a certain point of economic growth, a change sweeps through society that results in demands for better use and management of environmental resources.<sup>124</sup> This is referred to as an inverted U-shaped ‘environmental Kuznets curve’ between income and deforestation.<sup>125</sup> The environmental Kuznets curve has been taken to imply that economic growth will eventually redress the environmental impacts of the early stages of development, and that growth will lead to further environmental improvements in these circumstances.<sup>126</sup>

This environmental Kuznets curve theory was applied in a study across 66 countries in Latin America, Africa and Asia.<sup>127</sup> It was found that to decrease deforestation, the role of institutional structures and governance processes was crucial in adapting to more environmentally compatible activities. Of relevance to this section was the finding that the rule of law and the protection of personal property rights, among other political rights, are related to improving environmental quality.<sup>128</sup> Furthermore, it has also been found that institutions that secure property rights can reduce deforestation without adversely affecting economic growth (thus flattening out the Kuznets curve<sup>129</sup>). The environmental Kuznets curve theory, therefore, demonstrates that property rights are linked to decreasing deforestation and highlights the significance of property rights in addressing deforestation.

### **C. Developed countries**

In the context of developed countries (where property rights institutions are more established and provide landholders with legally recognised and enforceable rights), tenure security is not a major barrier to implementing forest market mechanisms. There are, however, other issues

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<sup>124</sup> For further detail on this concept, see: Promode Kant and Wu Shuirong, ‘Reducing Deforestation and Degradation through Post-colonial Settlement of land Rights: A case study in India’, (2008), 3, *Carbon and Climate Law Review*, 300, 305.

<sup>125</sup> The *environmental Kuznets curve* is named after Simon Kuznets who hypothesised that the relationship between a measure of inequality in the distribution of income and the level of income is an inverted U-shape curve. See: S Kuznets, ‘Economic Growth and income inequality’, (1955), 49, *American Economic Review*, 1.

<sup>126</sup> David Stern, ‘Progress on the environmental Kuznets curve’, (1998), 3, *Environmental and Development Economics*, 173.

<sup>127</sup> Madhusudan Bhattari and Micheal Hammig, ‘Institutions and the Environmental Kuznets Curve for Deforestation: A cross-country Analysis for Latin America, Africa and Asia’, (2001), 29 (6), *World Development*, 995.

<sup>128</sup> *Ibid*, 999.

<sup>129</sup> RJ Culas, ‘Deforestation and the Environmental Kuznets Curve: An Institutional Perspective’, (2007), *Ecological Economics*, 429.

related to land tenure that become relevant to the operation of forest market mechanisms.<sup>130</sup> When examining land tenure in the countries with established property right institutions and instruments, two questions must be posed:

1. What is the form of the tenure holding over the relevant forest area?
2. Are the requirements of the forest market mechanism compatible with the form of the tenure holding?

In relation to the first question, the most common forms of land tenure in common law countries are freehold title and leasehold title. Those who hold a freehold or leasehold interest over a forest area will need to ensure that their land interest is inclusive of all forest ecosystem services. Therefore, landholders will need to check if their interest in land includes:

- rights to the trees on the forest land
- rights to biodiversity on the forest land
- rights to carbon stored in the trees on the forest land
- rights to watershed values within the forest land.

Once this is established, a landholder will then be able to judge if they have the appropriate right to participate in a forest market regulatory framework. Secondly, the landholder must ensure the management requirements prescribed by the forest market regulatory framework are consistent with their tenure use rights. This will usually require that the holder of the land have the right to manage the forest area in a particular way so as to achieve specified environmental standards. Therefore, in the developed country context, tenure issues are linked to form and use considerations.

Market-based approaches to environmental management require the development of property rights in environmental resources. This is because markets are premised on the economic definition that 'property' means 'ownership'. According to this reasoning, once ownership and/or property rights are established, incentives are created to manage and care for the environmental value on which the property rights attach. Environmental degradation could be viewed as a market failure. If this is accepted, then it can be suggested that the creation of property rights in environmental resources results in an economic value being attributed to these environmental values – this, in turn, means that an incentive exists to

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<sup>130</sup> For an in-depth analysis of consideration of an environmental offset trading regimen on freehold and leasehold tenure in Queensland, see: Rowena Maguire, 'The Compatibility of Leasehold and Freehold Tenure Arrangements with Environmental Offset and Trading Initiatives', (2008/2009), 14 (63), *Queensland Environmental Practice Reporter*, 1.



manage and look after this environmental value.<sup>131</sup> Property rights, therefore, provide the holder of the rights with a sense of security, which, in turn, acts as incentive for better management or protection of the interest.

It should be noted that securing property rights alone will not lead to improved environmental outcomes,<sup>132</sup> as they would not prevent a landholder from unsustainable forest practices.<sup>133</sup> Rather, they must accompany traditional forms of regulation requiring certain standards to be met (or the use of a market instrument that provides an incentive for certain standards to be met) to assure improved forest outcomes. Regulatory standards alone have not been able to promote a certain level of sustainable forest management. In many instances, this is likely attributable to the voluntary nature of sustainable forest management obligations.

#### ***D. Legal recognition of tenure and property rights***

##### *i. Form of recognition*

To have secure tenure and property rights, there must be system for legal recognition and registration of such interests in land. Within environmental market frameworks, there are two general approaches to recognition and registration of forest property-based interests.

1. There are frameworks that use existing legal mechanisms to enforce the legal rights and obligations associated with offset creation. Under this approach, contract law is used to create rights and obligations for all parties involved in the transaction. Unless additional steps are taken, the participant's rights will be based upon the scope of the contract between the parties. Parties may wish to increase their legal rights by obtaining recognition of their interests via a property-based mechanism. This may involve registering their interest on the land title registry.<sup>134</sup> Once an interest is registered on a land title register, legislative protection will be afforded to the right, and the right is enforceable against the current landholders and all future landholders. The level of protection afforded depends upon the nature of the registration.
2. The model that creates a central registry where all forest property rights associated with the program are registered. This registry may or may not be

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<sup>131</sup> Michelle Passero, 'The Nature of the Right of Interest Created by a Market for Forest Carbon', (2008), 3, *Carbon and Climate Law Review*, 248, 250.

<sup>132</sup> "Furthermore, a private property rights approach to environmental protection without regulation, as favoured by free market economists, will almost certainly lead to a trade-off of species and ecosystems for other objectives, although some free-market economists resist this interpretation." See Kinrade above n 98 in *Markets, the State and the Environment*. See also Bosselmann and Richardson, above n3, 8.

<sup>133</sup> Michael Richards, 'Can Sustainable Tropical Forestry be Made profitable? The Potential and Limitation of Innovative Incentive Mechanisms', (2000), 28 (6), *World Development*, 1001, 1010.

<sup>134</sup> For example, wetland mitigation credits in the USA are protected by registering an easement over the bank (offset) site. In Victoria, a Forest Property Agreement can be registered on the land registry. For further information, see: Australian Greenhouse Office, *Planning Forest Sink Projects: A guide to Legal, Taxation and Contractual Issues*, (March 2005).

linked to other registries, such as the land registry. An example of this approach is the Biodiversity Banking Scheme in New South Wales.<sup>135</sup> This scheme has been created through legislative reform,<sup>136</sup> and provides participants with legal rights to enforce all participants' obligations and rights. The scheme allows participants to register their biodiversity offsets on the land registry in addition to the biodiversity banking registry.<sup>137</sup>

## ii. Nature of recognition

A number of legal mechanisms exist which could be used to register forest property interests on the land registries:<sup>138</sup>

- profit à prendre
- covenant
- other rights – forest property agreements.

A *profit à prendre* is a right obtained by a third party to remove something from another's land.<sup>139</sup> It confers a right to enter and remove something from the land.<sup>140</sup> For this right to be created, an agreement is entered into between the landowner and the person interested in obtaining an interest on a product of the land. The agreement will specify the rights of removal and other obligations associated with this type of interest. This type of interest in land has been held to be a legal interest in land.<sup>141</sup> A *profit à prendre* can be registered on the Queensland Land Titles Register to obtain a legal interest in the land and, hence, obtain the benefits of indefeasibility.<sup>142</sup>

In order to create a *profit à prendre* there must be: a grant of a specified interest given to a specified person for specified consideration; the action of taking (*prendre*) must also be present.<sup>143</sup> *Profit à prendre* agreements have been used to provide holders of carbon credits

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<sup>135</sup> See *Threatened Species Conservation Act 1995* (NSW); see Part 7A Biodiversity Banking, Division 9 Registers.

<sup>136</sup> See *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006* No 125 (NSW)

<sup>137</sup> *Threatened Species Conservation Act 1995* (NSW) s127ZZB.

<sup>138</sup> For a discussion of other instruments such as leases, easements and mortgages, see: Justine Bell, 'Can the Torrens System Adapt to Ecologically Sustainable Development?', (2007/2008), 13 (62), *Queensland Environmental Practice Reporter*, 218; and Australian Greenhouse Office, above n 13, 66-68.

<sup>139</sup> Law Book Company, *Property Law / Land Titles Law and Practice (Qld)*, Division 4B – A Profits a Prendre [6.17950].

<sup>140</sup> *Ibid.*

<sup>141</sup> *R v Toohey* (1983) 158 CLR 327 at 352

<sup>142</sup> *Land Title Act 1994* (Qld) s97E; and Law Book Company, *Property Law / Land Titles Law and Practice (Qld)*, Division 4B – A Profits a Prendre [6.17971]

<sup>143</sup> Law Book Company, *Property Law / Land Titles Law and Practice (Qld)*, Division 4B – A Profits a Prendre [6.17974]

(generated from forest activities) an interest in the land.<sup>144</sup> On a strict interpretation, however, holders of carbon credits do not have a right to remove something from the land; rather, they have a right to payment for a service that the environment performs (i.e. carbon sequestration). Conceptually, holders of environmental offsets will not have a right to remove something from the land (for example, biodiversity), but will have a right to payment for a service that the environment performs.<sup>145</sup>

A covenant is an agreement that restricts or requires that certain activities be carried out upon land. The person undertaking to comply with the agreement (the covenanter) agrees to certain conditions of use upon their lot. The person who obtains the benefits of the agreement is known as the covenantee.<sup>146</sup> To create a covenant, the requirements listed below must be satisfied.<sup>147</sup>

1. It must relate to the use of: i) a lot, or part of a lot; or ii) a building, or building proposed to be built, on the lot.
2. It must be directly aimed at preserving: i) a native animal or plant; or ii) a natural or physical feature of the lot that is of cultural or scientific significance.
3. It must ensure that the covenant continues upon transfer.

A forest property interest may meet the above requirements. An interest will relate to the use of lot, if it demands that certain requirements are complied with in relation to the ongoing management of the area where the offset is created. The term “directly aimed at preserving” will, in many cases, be consistent with the objectives of environmental offset initiatives. However, in some instances, the purpose of the offset may not be to preserve, but rather to enhance or provide a functional lift in the quality of the environmental service creating the offset. In Western Australia, interests relating to carbon rights are registered as a covenant.<sup>148</sup> A working group published a report in 2003 advocating the use of covenants for environmental purposes.<sup>149</sup>

There are some conceptual difficulties with using existing legal property categories. Environmental interests do not conceptually align with *profit à prendre* and covenant common

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<sup>144</sup> *Forestry Act 1959* (Qld) s61 J (5); also see *The Natural Resources and Other Legislation Amendment Bill 2004* (Qld), which amends a number of acts specifically to recognise the creation of profit a prendre arrangement on freehold and leasehold land.

<sup>145</sup> Two other commentators note this conceptual difficulty see: Paul Curnow, Louisa Fitz-Gerald, ‘Biobanking in New South Wales: Legal issues in the design and implementation of a biodiversity offsets and banking scheme’, (2006), *Environmental and Planning Law Journal*, 298; and Australian Greenhouse Office, *Planning Forest Sink Projects: A guide to Legal, Taxation and Contractual Issues* (March 2005).

<sup>146</sup> Law Book Company, *Property Law / Land Titles Law and Practice (Qld)*, Division 4A Covenants [6.17764].

<sup>147</sup> *Land Title Act 1994* (Qld) s97A (3)

<sup>148</sup> Australian Greenhouse Office, above n 47, 65.

<sup>149</sup> Queensland Government Department of Natural Resources and Mines, Statutory Covenants Working Group, *Statutory covenants: guidelines for their use in Queensland*, (2003).

law definitions. However, if statutory provisions provide that certain environmental interests fit within existing legal instruments (such as *profit à prendre* and covenants), then this will override the common law requirement. As such, the conceptual difficulties are overcome due to legislative intervention. New environmental interests (such as biodiversity and carbon storage) are different to traditional uses associated with land. This difference could be used to justify the creation of a new property-based environmental interest in land.

Some states in Australia have dealt with the issue by, instead, creating a 'new interest' in land that can be registered on the title.<sup>150</sup> Victoria and South Australia allow for the creation of Forest Property Agreements that include rights to plant, maintain and harvest forest property (which includes carbon sequestered by trees). These agreements can then be registered on the land registry, which allows the owner of the forestry right to enforce contractual obligations concerning the forestry right. The registration of this interest in the land also allows the owner of the right to enforce these contractual obligations against future owners of the land.<sup>151</sup> Australia is leading the way in developing forestry carbon-based rights.<sup>152</sup>

The New Zealand government has also introduced *The Forestry Rights Registration Act 1983* which enables an owner of land on which forest is grown to grant a forestry right to a third party. A forestry right holder has the ability to establish, maintain and harvest a crop of trees on the land. Forestry rights are registered against the land titles, and classified as a *profit à prendre* interest. This classification ensures that the holder's right continues despite any changes in land ownership.<sup>153</sup>

### ***E. Legal market concepts***

There are four legal market concepts that must be addressed within forest market regulation:

- Additionality
- Permanence
- Leakage
- Double-counting

'Additionality' is a principle within market frameworks that requires that something has taken place that otherwise would not have taken place. Specifically, in the forestry context, the

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<sup>150</sup> Sandra Eckert, Richard McKellar, 'Securing Rights to Carbon Sequestration: The Western Australian Experience', (2008) (Winter), *Sustainable Development Law and Policy*, 30

<sup>151</sup> Australian Greenhouse Office, above n 47, 59-61.

<sup>152</sup> Charlotte Streck, 'Forests, Carbon Markets, and Avoided Deforestation: Legal Implications', (2008), 3, *Carbon and Climate Law Review*, 239, 246; and Michelle Passero, 'The Nature of the Right of Interest Created by a Market for Forest Carbon', (2008), 3, *Carbon and Climate Law Review*, 248, 249, 252.

<sup>153</sup> Peter Lough, Alastair Cameron, 'Forestry in the New Zealand Emissions Trading Scheme: Design and Prospects for Success', (2008), 3, *Carbon and Climate Law Review*, 281, 285.

enhancement or preservation of the forest service must be additional to standard practices.<sup>154</sup> Additionality, therefore, requires that the forest practice go above and beyond business as usual. The theory underlying this is that parties should not be rewarded for completing the bare minimum. Rewards or incentives should be reserved for those parties who surpass current obligations.<sup>155</sup>

'Permanence' requires continuance in the same state or place.<sup>156</sup> There are two separate permanence issues:

1. Natural environmental change – the environment will not perpetually remain in the same state or condition.
2. Forest interest security – once a forest interest has been created, the interest must be recognised by the law to prevent future incompatible land use.

The provision of environmental services can never be stable or fixed in nature. The environment has a dynamic nature that brings change over time, and that is susceptible to such changes. During different periods, the quantity and quality of the provision of environmental services will vary. At the international level, the changing nature of the environment has been vigorously debated in relation to the creation of forestry carbon credits.<sup>157</sup> Carbon credits (certified emission reduction credits) are issued on the basis that the activity for which they have been issued will contribute to the reduction of carbon and other substances in the atmosphere. The natural processes associated with forest carbon sequestration present a challenge for their inclusion in emission-reduction trading frameworks. This is because, during certain periods, forests act as sequesters of carbon but, during other periods, they act as emitters of carbon.<sup>158</sup>

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<sup>154</sup> 'Additionality' in the carbon context involves a number of different types: i) *program additionality*, which requires that emission reductions are additional to emission reductions required by law or government; ii) *financial additionality* is the requirement that funding for the implementation of projects must not come from overseas development or environmental assistance funds; and *investment additionality*, where a project might justify additionality by showing that the creation of carbon offsets will involve costs that would not be incurred in the business as usual scenario. See: Peter Minany, Hans Bressers, Margaret Skutsh, Michael McCall, 'National forest policy as a platform for biosphere carbon management: the case of community forestry in Cameroon', (2007), 10, *Environmental Science and Policy*, 204, 206.

<sup>155</sup> This is sometimes called *Payment for Ecosystem Service*; see: Nigel Asquity, Maria Vargas, Sven Wunder, 'Selling two environmental services: in kind payments for bird habitat and watershed protection in Los Negros, Bolivia', (2008), 65, *Ecological Economics*, 675; see additionality discussion at 680.

<sup>156</sup> Webster Dictionary, *Definition of Permanence*, (2008), <http://www.webster-dictionary.net/definition/permanence> at 8 May 2008.

<sup>157</sup> United Nations Framework Convention on Climate Change, *Reducing emissions from deforestation in developing countries: approaches to stimulate action*, (2008), Subsidiary Body for Scientific and Technological Advice, <http://unfccc.int/resource/docs/2008/sbsta/eng/misc04.pdf> at 27 June 2008.

<sup>158</sup> Catharina Schulp, Gert-Jan Nabuurs, Peter Verbug, 'Future carbon sequestration in Europe – Effects of land use change', (2008), 127, *Agriculture, Ecosystems and Environment*, 251.

The forest sector is seen as particularly vulnerable to the risk of impermanence. These may be human-caused through changes in land ownership, unclear land ownership, deforestation, conversion and unsustainable harvests or naturally caused disturbance events (like fires, pests and disease.)<sup>159</sup> The challenge is not so significant for environmental offset programs, because these seek to replicate the natural cycles of environmental services. Difficulties may still arise where there are unexpected events (such as severe fire, drought, or storm conditions), as these may have a substantial impact upon the provision of environmental services.<sup>160</sup>

‘Leakage’ in the environmental market context means avoiding a situation whereby the damaging environmental practice is moved to another location.<sup>161</sup> In the forest context, the concept seeks to avoid instances where forest standards are improved in one area, and which then only intensifies undesirable forest practices in another. For example, the implementation of a forest-market mechanism may prevent deforestation in a particular region; however, if the driver of the deforestation is a demand for timber sales, it is more than likely that the deforestation will simply occur in another. Leakage is perhaps one of the biggest challenges to all environmental market mechanisms, because it is virtually impossible to be assured that the implementation of the mechanism is not responsible for increasing undesirable forest activities in other locations. Issues related to ‘double-counting’ arise in two circumstances:

1. Where competing schemes exist for carrying out the forest activity – a landholder may attempt to get recognition under both schemes, and this may prevent an overall gain of the forest services. This would mean that the party could receive a number of incentives or cash payments for carrying out only the one activity. To overcome this situation, participants should be required to sign an acknowledgment form that would require the parties to state that the forest practice has not already been accounted for elsewhere. In the event that a party is found to have gained recognition from two environmental offset schemes, a penalty and/or sanction should be imposed upon the participant.<sup>162</sup>
2. Where one parcel of land may be used to generate many different types of forest interests – for example, if a forest area is established it would provide many environmental services, such as biodiversity services, carbon storage,

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<sup>159</sup> Michelle Passero, ‘The Nature of the Right of Interest Created by a Market for Forest Carbon’, (2008), 3, *Carbon and Climate Law Review*, 248, 249.

<sup>160</sup> It has been suggested that, to deal with intentional or unforeseen losses of credits, either an insurance pool is created by the offset framework or private insurance is taken out by the participants in the offset scheme. See: Paul Curnow, Louisa Fitz-Gerald, ‘Biobanking in New South Wales: Legal issues in the design and implementation of a biodiversity offsets and banking scheme’, (2006), *Environmental and Planning Law Journal*, 298.

<sup>161</sup> Engel, Pagiola, Wunder, above n94, 668.

<sup>162</sup> See the discussion on double counting issues relating to international carbon market under the clean development mechanism: United Nations Framework Convention on Climate Change, *Input to UNFCCC on double counting and methodological issues*, (2005), [http://cdm.unfccc.int/public\\_inputs/meth\\_double\\_counting/DC4\\_Inputs\\_DoubleCounting\\_MA\\_SS.pdf](http://cdm.unfccc.int/public_inputs/meth_double_counting/DC4_Inputs_DoubleCounting_MA_SS.pdf) at 27 June 2008.

water purification services, and soil health improvement. The question, then, is whether the landowner should be able to create individual credits for each individual environmental service provided for by the establishment of the forest. The answer depends on the scientific soundness of rewarding these competing environmental services (most likely recognised and measured in forms of functional lift).<sup>163</sup> Some frameworks have overcome this concern by creating a bundled forest interest, which recognises all the interests within a forest.<sup>164</sup>

## 6. Implementation: Case Study – Biodiversity Banking in New South Wales

### A. Biodiversity banking in New South Wales

The New South Wales government has introduced a voluntary biodiversity banking scheme. The purpose of the scheme is to promote the conservation of endangered animals, plants and ecosystems. Biodiversity loss in New South Wales is primarily caused by habitat destruction. The drivers of habitat destruction are over-grazing, and the clearing of land for agriculture and urban development.<sup>165</sup> The scheme seeks to improve the habitat for biodiversity by providing a compensation mechanism for landholders who improve or maintain biodiversity values on their land. Forest and forested areas house a significant proportion of land-based biodiversity.<sup>166</sup>

In 2006, the New South Wales Government introduced the *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006 No 125*. Biobanking is seen here as a mechanism that tackles the challenge of balancing *development needs* – those that provide the community with new housing, jobs and amenities, as opposed to *biological diversity needs*, which are essential for current and future generations.<sup>167</sup> The scheme was introduced to formalise existing environmental offset arrangements in operation. Biobanking is defined as a:

“... market-based approach to help slow the loss of biodiversity caused by development and simplify the development assessment process. BioBanking allows 'biodiversity credits' to be generated by landowners who commit to enhance and protect biodiversity values on their land. These credits can then be sold. Developers can buy these credits and use them to

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<sup>163</sup> Asquity, Wunder, above n 18, for a discussion on the benefits of creating two environmental services on the one area of land.

<sup>164</sup> Pagiola Costat Rica.

<sup>165</sup> Department of Environment and Climate Change, *Biobanking: Biodiversity banking and Offsets Scheme, Scheme Overview*, (2007), 2, New South Wales Government, viewed 1 July 2008 at <http://www.environment.nsw.gov.au/resources/biobanking/biobankingoverview07528.pdf>

<sup>166</sup> Convention on Biological Resources Report. <— is there more to add here?

<sup>167</sup> Department of Environment and Climate Change, *Biobanking: Biodiversity banking and Offsets Scheme, Scheme Overview*, (2007), 2, New South Wales Government, viewed 1 July 2008 at <http://www.environment.nsw.gov.au/resources/biobanking/biobankingoverview07528.pdf>

counterbalance (offset) the impacts on biodiversity values that are likely to occur as a result of development.”<sup>168</sup>

### **B. The tradeable commodity**

Within the Act, biodiversity values include the composition, structure and function of ecosystems. The Act covers (but is not limited to) threatened species, populations, and ecological communities and their habitats.<sup>169</sup> The definition is limited by excluding biodiversity values as these relate to fish, or marine vegetation. There are scientific concerns about the trade in biodiversity, because the methodologies used to measure it are undeveloped; they are extremely complex. Moreover, the area of ecological and restoration science is still in its infancy.<sup>170</sup>

### **C. Form of economic instrument**

Biodiversity banking is a market-based economic instrument. The scheme works on a trading basis, whereby participating landowners generate biodiversity ‘credits’ on their land and sell these credits to developers that are required by law offset the impacts of their development. The credits represent an improvement in the condition of biodiversity values (such as an improvement in the habitat or an increase in the habitat or population of a threatened species).<sup>171</sup>

### **D. Suitability of biodiversity banking to address habitat destruction**

To create a demand for biodiversity offset credits, the New South Wales Government, in certain instances, requires developers to offset the biodiversity losses that occur as result of their development. Developers have to source biodiversity credits that are: (a) in the same ecological community; or (b) in another community of the same formation that has an equal or greater percentage of the land cleared and the same predicted threatened species as the area that is being developed.

It should be noted that the scheme is voluntary in nature; thus, particular regions of biodiversity loss are not targeted by this approach.<sup>172</sup> The biodiversity values being improved

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<sup>168</sup> Department of Environment and Climate Change, *Questions and Answers about the Biodiversity Banking and Offset Scheme*, (2007), viewed 7 November 2007 at <http://www.environment.nsw.gov.au/threatspec/biobankingqa.htm>

<sup>169</sup> *Threatened Species Conservation Act 1995* (NSW) s4A (1) and (2).

<sup>170</sup> For further information on this point, see: Jane Scanlon, ‘An appraisal of the NSW Biobanking Scheme to Promote the Goal of Sustainable Development in NSW’, (2007), 4, *Macquarie Journal of International Comparative and Environmental Law*, 71, 78.

<sup>171</sup> Credits are created under *Threatened Species Conservation Act 1995* (NSW) s127V.

<sup>172</sup> For further information on the effect of implementation on development approvals, see: David Farrier, Andrew Kelly, and Angela Langdon, ‘Biodiversity offsets and native vegetation clearance in New South Wales: The rural/urban divide in the pursuit of ecologically sustainable development’, (2007), 24, *Environmental and Planning Law Journal*, 427.



upon under the scheme will depend on the nature of the land used by landholders to generate the credits. The demand for biodiversity credits will arise from the areas being cleared for development. Therefore, if a particular biodiversity value is of concern (and, as such, a priority), a different mechanism may need to be used in conjunction to target such areas.

### ***E. Design considerations***

The biodiversity banking scheme does not have a clear environmental goal.<sup>173</sup> It does not focus on a particular biodiversity region or species, nor does it establish a particular target for biodiversity conservation; its operation will be determined by those who decide to participate. The scheme should be amended to include a clear environmental goal (or goals).<sup>174</sup> For example, to increase the population of species 'x', or to increase the quantity and quality of ecosystem service 'y'

#### ***i. Governance considerations***

“Biobanking is an extremely complex approach to the protection of biodiversity in coastal NSW. This complexity can be seen in the various disciplines that are necessary to operate the scheme including economic, financial, ecological, planning and legal expertise. Although this could be beneficial as it allows for a more integrated approach to sustainable development in NSW, there is so far no real understanding amongst stakeholders or experts about what their role will or should be. This is indicated by one expert who attended a briefing on the scheme, yet found the briefing almost unintelligible.”<sup>175</sup>

Biodiversity banking is, therefore, an example of a market mechanism that has resulted in increased regulatory requirements (as opposed to a decrease in requirements touted by early market proponents). This increase in regulatory requirements, and the voluntary nature of the program, means that engaging stakeholders could prove to be a challenging task. Furthermore, if the requirements of biodiversity banking are complex (and/or appear unclear to scheme participants) the scheme will not address accountability and transparency requirements.

### ***F. Tenure and property right Issues***

Division 2 of part 7A of the Act discusses the requirements of the land upon which the biodiversity bank site is created. The Act itself does not prescribe suitable or non-suitable land, instead leaving this to the *Threatened Species Conservation (Biodiversity Banking) Regulation 2007*.<sup>176</sup> Part 4 of the regulation provides that land will be ineligible to be a bank site if it is considered “unlikely to provide good conservation outcomes based on previous, current or

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<sup>173</sup> See generally: Shelley Burgin, ‘Biobanking: an environmental scientist’s view of the role of biodiversity banking offsets in conservation’, (2008), 17, *Biodiversity Conservation*, 807, 808.

<sup>174</sup> In support of these Scanlon above n 170, 128.

<sup>175</sup> *Ibid*, 126.

<sup>176</sup> *Threatened Species Conservation Act 1995* (NSW) s127D (4).

future use of the land or of surrounding land".<sup>177</sup> Certain land is expressly stated to be ineligible: land which is already being used for conservation purposes; land where there is an existing duty to carry out biodiversity conservation; land which is already subject to an offset arrangement; or land where conservation objectives would not be satisfied due to previous, current, or future uses of the site, or inconsistent uses on surrounding land. It is suggested that these ineligible land categories have been created to meet additionality concerns.<sup>178</sup>

The regulations do not provide that biodiversity banking cannot take place on public land. However, the Act provides that a biobanking agreement cannot be entered into over Crown land without the consent of the minister administering the Act.<sup>179</sup> The Act also expressly deals with prospecting and mining on bank sites. The Act provides that mining interests will override biodiversity banking interests on land.<sup>180</sup> The Act does not currently require that disturbance to biodiversity bank sites caused by incompatible mining interests be offset, in essence undermining the ecological sustainability of such projects. However, it does provide that capital invested in the creation of a bank site is refundable should mining activities commence on the bank site.<sup>181</sup>

Division 2 also deals with the duration of biobanking agreements,<sup>182</sup> the registration of agreements,<sup>183</sup> and the enforcements of agreements.<sup>184</sup> Biodiversity credits are recorded on a biobank site register,<sup>185</sup> and also on the land registry.<sup>186</sup> The recording of all biobank sites in a single register allows for a central body to be responsible for recording all biobanking interests in land. Registration of the interest on the land title ensures that the biobank site is managed in accordance with its requirements in perpetuity.<sup>187</sup>

The Biodiversity Banking Scheme in New South Wales is the first scheme in Australia to combine the creation of environmental offsets with a trading component. The Act is a fundamental step forward in the development of environment offsetting in Australia. It has the

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<sup>177</sup> Proposed *Threatened Species Conservation (Biodiversity Banking) Regulation 2007* (NSW), part 4.1.

<sup>178</sup> See section 7.2 of the Report which considers the additionality concept.

<sup>179</sup> *Threatened Species Conservation Act 1995* (NSW) s127F (5)

<sup>180</sup> *Threatened Species Conservation Act 1995* (NSW) s127S (1)

<sup>181</sup> *Threatened Species Conservation Act 1995* (NSW) s127ZE (4)

<sup>182</sup> *Threatened Species Conservation Act 1995* (NSW) s127G, agreements to be in perpetuity.

<sup>183</sup> *Threatened Species Conservation Act 1995* (NSW) s127I

<sup>184</sup> *Threatened Species Conservation Act 1995* (NSW) s127L

<sup>185</sup> *Threatened Species Conservation Act 1995* (NSW) s127ZZB

<sup>186</sup> *Threatened Species Conservation Act 1995* (NSW) s127I

<sup>187</sup> There are two types of covenants that can be registered against title: *restrictive covenants*, which are agreements entered into between private land holders; and *statutory covenants*, which are agreements entered into between the government and private land holders. Statutory covenants are recorded on title and, as such, are binding on all future landholders. Depending upon the jurisdiction, restrictive covenants may be enforceable against future landholders.

potential to improve the management and quality of biodiversity on private and public land. One of the challenges of implementing this Act is that the environmental commodity (biodiversity) is very difficult to define and measure. The scheme is still in its infancy, and the effect of the scheme on threatened species conservation is not yet known. However, judging from other banking schemes similar to this model that have been adopted overseas,<sup>188</sup> it shows promise in meeting the development and ecological needs of New South Wales.

## 7. Critique of Modern Environmental Markets

“A better approach would seem to be to start our analysis with a situation approximating that which actually exists, to examine the effects of a proposed policy change and to attempt to decide whether the new situation would be, in total, better or worse than the original one. In this way conclusions for policy would have some relevance to the actual situation.”<sup>189</sup>

The above quote comes from Ronald Coase, whose work is associated with creating the underlying theory used to justify the existence of modern environmental market frameworks. Environmental markets apply an aspect of Coase’s work that suggests that the external effects of an individual’s actions can, in some instances, be addressed through private negotiation between affected parties.<sup>190</sup> Coase suggests that the exercising of one individual’s right usually compromises other’s rights. A change within existing rights’ structures may lead to improvements in some instances, but this must be tempered with the reality that improvements to one interest may lead to a worsening of conditions for other interests. Fundamentally, Coase believes that, in devising and choosing between social arrangements, one should have regard to the total effect of the change.<sup>191</sup> Therefore, Coase is an advocate for private negotiations between parties to settle disputes (in essence, a supporter of mediation as opposed to legislation to solve disputes). Ultimately, Coase believes that an action should only be undertaken once all possible ramifications associated with implementing the action are understood.

Environmental markets have been praised for their innovativeness in addressing environmental issues. This is because markets are believed to promote efficiency and

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<sup>188</sup> For example, the Wetland Mitigation and Endangered Species implemented in America have, on the whole, contributed positively to the retention of ecosystem services. See: Mark Sheahan, ‘Credit for conservation: A report on Conservation Banking and Mitigation Banking in the USA and its applicability to New South Wales’, The Winston Churchill Memorial Trust of Australia, (2001); Natasha Landell- Mills and Ina Porras, ‘Silver Bullet or Fools’ Gold? A global review of markets for forest environmental services and their impact on the poor’, International Institute for Environment and Development, London, (2002); and Jessica Wilkinson and Jared Thompson, ‘2005 Status Report on Compensatory Mitigation in the United States’, *Environmental Law Institute*, (2006).

<sup>189</sup> RH Coase, ‘The Problem of Social Cost’, (1960), 3, *The Journal of Law and Economics*, 1, 43.

<sup>190</sup> Engel, Pagiola, and Wunder, above n86, 665.

<sup>191</sup> Coase above n189, 44.

flexibility.<sup>192</sup> This thesis contends that environmental markets are neither flexible nor efficient,<sup>193</sup> and is due to the complex myriad of institutions and instruments that have been developed to implement them.<sup>194</sup> The increasing complexity associated with creating new interests in the environment, regulating and controlling the use of these interests with existing interests, and the stringent monitoring, verification and other guidelines created by regimens is exceptionally time-consuming and laborious. Following such processes, and meeting the requirements of such regimens, is often at the forefront of participants' minds. Likewise, the regulatory bodies and their employees now specialise in identifying flaws with current policy design, as opposed to actually changing society's relationship with the environment. This draws attention away from the fundamental purpose of the scheme, which is likely to be preventing the further degradation of an identified ecosystem service.

There is also a valid concern that markets based upon the theory of economic rationalism fail to distribute resources in way that is just and equitable.<sup>195</sup> In addition, the legitimacy of markets can be called into question, because participation within market frameworks is skewed in favour of the wealthy and powerful.<sup>196</sup> Markets that work on the basis of directing resources to the highest bidder run an extreme risk of increasing the cost to use what has traditionally been considered a public good – while still continuing practices that are ecologically unsustainable. Conversely, it could be suggested that the government has been unable to cover the cost of effective environmental maintenance, and that transferring responsibility to the private sector results in broad public gains.

Modern environmental problems have also spawned the creation of an entire new employment industry – that of environmental regulation. Interestingly, many people engaged in environmental-based work are not driven by a desire to improve the use and management of our environment, but instead see issues surrounding sustainability, climate change, and the degradation of ecosystems services as new business opportunities. With increasing numbers of individuals driven by personal interests working on environmental regulation (as opposed to

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<sup>192</sup> Bosselmand and Richardson, above n3, 3.

<sup>193</sup> In support of this, see Scanlon above n170, 88: Participants were interviewed about the Biodiversity Banking Scheme in New South Wales. One stated that banking schemes “especially if they are added to, rather than integrated into a planning system, further complicate and already complex system. This means that stakeholders, including local communities and government lose understanding and faith in both the system and administrators of biodiversity protection.

<sup>194</sup> The efficiency, flexibility, and accompanying complexity of international emissions trading market is persuasive on this front. See, for example, the plethora of legal analysis of existing arrangements in the journal of Carbon and Climate Law Review.

<sup>195</sup> Corbera, Brown, Adger, above n 109, 590-591.

<sup>196</sup> Rosemary Lyster, '(De)regulating the Rural Environment', (2002), 19 (1), *Environmental and Planning Law Journal*, 34, 53.

individuals in pursuit of broader public interests) there looms a weakening of environmental goals. The credibility of such schemes is at high risk.

Market-based regulation is appealing, as it appears to be able to recognise and provide for all interests associated with the environment. Indeed, there are examples of successful environmental market initiatives<sup>197</sup> – although it must also be noted that a number of environmental markets have failed to deliver upon their stated objectives.<sup>198</sup> Environmental markets seem to be developing at an exponential rate. There appears to be a widely held belief that environmental market regulation is the answer to all conflicts connected with environmental use and management.<sup>199</sup> This chapter identifies the major regulatory issues faced by environmental markets focusing on markets associated with forest-related ecosystem services. It seeks to demonstrate that a cautious approach should be taken before assuming that a market mechanism will solve the problem.<sup>200</sup> Market regimens are not necessarily the most appropriate and effective mechanisms for achieving desired outcomes – regulators must consider this when designing schemes to achieve environmental objectives.<sup>201</sup>

This is not to suggest that market regulation is fundamentally flawed;<sup>202</sup> however, markets operate on the premise that a service will continue to be available, and that current consumption levels are appropriate.<sup>203</sup> In relation to natural resources, it is now well understood that environmental services will not exist indefinitely and that the planet cannot support current consumption levels.<sup>204</sup> Current market design contributes to perpetrating the belief that current consumption and development levels are appropriate.

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<sup>197</sup> One of the most celebrated environmental markets is the one created for financing forest protection in Costa Rica. By protecting the forest, water, and biodiversity, carbon sequestration rates were improved upon the land. Currently, 10% of the land in Costa Rica is regulated by environmental markets. Stefano Pagiola, 'Payments for environmental services in Costa Rica', (2008), 65, *Ecological Economics*, 712.

<sup>198</sup> For further information, see the following work that discusses the dismal environmental outcomes of tradeable fishing rights, water trading, and wetland mitigation banking schemes. Beder, above n11.

<sup>199</sup> As suggested by Bayon: "Markets are tools, tools that are inappropriate for some situations, and tools that, when used incorrectly can backfire. As the saying goes, to a man with a hammer, everything starts to look like a nail". Ricardo Bayon, *Making Environmental Markets Work: Lessons from early experience with sulphur, carbon, wetlands, and other related markets*, Forest Trends, 2004.

<sup>200</sup> In support of this, see: Rosemary Lyster, '(De)regulating the Rural Environment', (2002), 19 (1), *Environmental and Planning Law Journal*, 34, 57; 'It is not suggested that the search for alternative methods of regulation be abandoned. However, policy makers in Australia need to ensure that before rushing to the market, they are confident that the services that are traded are properly evaluated and accounted for'.

<sup>201</sup> Nathaniel Keohane, Richard Revesz and Robert Stavins, 'The Choice of Regulatory Instruments in Environmental Policy', (1998), 22, *Harvard Environmental Law Review*, 313.

<sup>202</sup> For an analysis of the failing of market failure and government failure see: Mrinal Datta-Chaudhuri, 'Market Failure and Government Failure', (1990), 4 (3), *The Journal of Economic Perspectives*, 25.

<sup>203</sup> See generally: David W Pearce, *Economic Values and the Natural World*, (1993), 1 – where it is stated "that if the earth's resources were available in infinite quantities, and if they could be deployed at zero cost, there would be no economic problem".

<sup>204</sup> Norman Myers, 'Consumption in relation to population, environment and development', (1997), 17, *The environmentalist*, 33; and Alex de Sherbinin, et al, *The Annual Review of Environmental Resources: Population*

To radically alter the human relationship with the environment, society's expectations concerning quality of life need to be transformed. There are simply not enough natural resources for current consumption and development to continue. As stated by Gandhi in 1947: "The Earth has enough for everyone's need but not for everyone's greed".<sup>205</sup> Within society, we need to manage our relationship with the earth much better so that human and other biological populations have a future. Markets will need to play a role in this transformation due to their ability to provide incentives and/or disincentives to encourage specified outcomes.<sup>206</sup>

## 8. Conclusion

Market mechanisms have emerged as a solution to concerns about sustainability, flexibility and the economic cost of environmental management. At this stage, forest market mechanisms, like conventional forest regulation, have been unable to avoid complex frameworks, undermining the goals of sustainability, flexibility, and economic effectiveness. From a legal perspective, the increased use of forest market mechanisms is dependent upon resolving three issues. Firstly, the environmental objective of the forest mechanism must be clear.<sup>207</sup> There must be a clear goal or purpose behind creating new interests in the environment. Secondly, the legal nature of the forest interested traded within such schemes must be clarified. As discussed in this chapter, forest values may be protected under contract, legislation, or property rights. And thirdly, the governance process of trade in forest values must be designed so that it is clear and simple. If, these issues can be resolved, forest market mechanisms may be of great assistance in implementing sustainable forest management due to their ability to provide incentives encouraging compliance.

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*and Environment*, (2007), Annual Review Org, viewed 6 May 2008 at <http://arjournals.annualreviews.org/doi/pdf/10.1146/annurev.energy.32.041306.100243?cookieSet=1>

<sup>205</sup> 1947, cited in Myers article.

<sup>206</sup> See Bosselmann and Richardson, above n3 which discuss the role of markets as a carrot or stick mechanism.

<sup>207</sup> Carolyn Crook and Roger Clapp, 'Is market-oriented forest conservation a contradiction in terms?', (1998), 25 (2), *Environmental Conservation*, 131, 142.

## CHAPTER NINE: Forest Certification Schemes

### 1. Introduction

Certification is a mechanism that seeks to implement sustainable forest management through the labelling of consumer products. Such systems are premised on the view that consumer will seek out forest products that are reputedly certified.<sup>1</sup> Consumer demand for sustainably harvested and produced forest products then creates a market demand for sustainable forest products. This, in turn, leads to the better management and use of global forest resources. The potential economic benefits of forest certification depend primarily upon such certification programs generating access to eco-sensitive markets that differentiate and favour certified forest products.<sup>2</sup> Access to such eco-sensitive markets provides an economic incentive in the form of a premium price for certified timber. Certification schemes have been used to promote other social and environmental objectives (for example, fair trade and organic schemes). For certification schemes to flourish, there must be sufficient consumer demand, coupled with a willingness by consumers to pay any price premiums associated with the production of the item. Certification continues to foster a constructive discussion about forest governance and destructive logging practices, increasing awareness of sustainable management alternatives, and enhancing the dialogue and cooperation among environmentalists, timber producers, and buyers and governments.<sup>3</sup>

Forest certification schemes, thus, offer a new avenue for the implementation of sustainable forest management. This avenue taps into consumer demand for sustainable timber, and requires producing industries to change practices (to preserve their market share). For wood-based certification schemes to be compatible with World Trade Organisation (WTO) or General Agreement on Tariffs and Trade (GATT) guidelines, the framework must be voluntary.<sup>4</sup> This is also the case for voluntary governmental certification programs, as long as they conform to the rules set forth by the WTO (such as non-discriminatory treatments and transparency). Non-governmental bodies are not subject to WTO jurisdiction, although the Technical Barriers to Trade Agreement contains provisions for certification systems of non-governmental bodies.<sup>5</sup>

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<sup>1</sup> Patricia Shanley, et al, 'Beyond Timber: Certification and Management of Non-Timber Forest Products', *Rights and Resources Initiatives*, (2008), 1.

<sup>2</sup> Johannes Ebeling and Mai Yasue, 'The effectiveness of market-based conservation in the tropics: Forest certification in Ecuador and Bolivia', (2009), 90, *Journal of Environmental Management*, 1145, 1146.

<sup>3</sup> *Ibid*, 1151.

<sup>4</sup> Ewald Rametsteiner, 'The role of governments in forest certification – a normative analysis based on new institutional economics theories', (2002), 4, *Forest Policy and Economics*, 163, 167.

<sup>5</sup> *Ibid*.

A mandatory preference for sustainably harvested timber could be seen as a barrier to trade (in contravention of international trade principles). This imposed voluntary requirement, thus, makes market-driven, or non-state governance, the most appropriate methods for the implementation of forest certification schemes. The development of the Forest Law Enforcement Governance Program,<sup>6</sup> and the advent of forest certification schemes, suggests that unsustainable timber harvesting is becoming a barrier to trade.

When first conceived, there was great optimism that forest certification schemes would improve forest silviculture and harvesting processes worldwide but, to date, they have not been as widely implemented as first thought. This is due to a wide range of barriers that will be discussed in more detail throughout this chapter. Such barriers include: fostering consumer demand and a willingness to pay a premium price for certified timber products; improving consumer understanding of forest certification logos and processes; increasing incentives for those bodies that comply with certification standards; making forest certification more accessible for small-scale forest producers; and significantly increasing the capacity within tropical forest countries to participate in certification processes.

If such barriers can be overcome, forest certification has the ability to significantly alter the use, management, and consumption patterns of forests and their products. It has been stated:

“Forest certification caters for many different peers and their respective interests. For industry and trade it is an instrument for environmental marketing and market access. For buyers and consumers, it provides information on the impacts of products they purchase. For forest owners and managers, it is a tool for market access or gaining market advantage. For governments, it is a soft policy instrument to promote sustainable forest management and sustainable consumption patterns. For the environmental movement, it is a means to influence how forests are managed- to promote, inter alia, biodiversity maintenance.”<sup>7</sup>

There are a number of concepts used within certification processes (such as certification, standard, verification and accreditation) that will each be briefly defined. Certification can be defined as:

“[an] evaluation system used to verify compliance with a set of standards that ensure product quality, consistency or safety.”<sup>8</sup>

Certification schemes require the creation of standards. These are agreed upon measures that prescribe specific requirements, benchmarks, or protocols. Parties seeking certification of their processes must meet the requirements established by the standards. To determine if

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<sup>6</sup> Discussed in more detail in Chapter Seven. The program initiated from the European Union requires that a commitment from both producing and consuming countries of a commitment to combat illegal logging.

<sup>7</sup> Ewald Rametsteiner and Markku Simula, ‘Forest certification – an instrument to promote sustainable forest management?’, (2003), 67, *Journal of Environmental Management*, 87, 88.

<sup>8</sup> Shanely, above n1, 7.



certification applicant has complied with the necessary standards, a verification process is followed. This can take place as an audit or assessment where practices and instrumentation are reviewed to evaluate the applicant's compliance with the standard. Verification can be carried out in three different ways. The first way involves first-party assessment (otherwise known as an internal audit process). Parties using this method carry out the process within their own organisation. The second method involves second-party assessment, and carried out by an organisation with a relationship to the institution being assessed (e.g. supplier audit). The final method is third-party certification, which is carried out by an independent organisation. Third-party verification processes tend to be more rigorous than first- and second-party verification processes (and, as such, are more accountable and transparent).

For verification bodies to carry out assessments to judge compliance with prescribed certification norms, the body carrying out the verification must be accredited. Accreditation is, thus, an evaluation process which verification bodies complete. The aim is to ensure that organisations undertaking certification assessments adhere to established standards and provide competent, independent, and credible results. Certification can refer to one component of forest practices (for example, the growing and harvesting of timber or may relate to the entire timber production process). Chain-of-custody certification verifies the successive links in the supply chain of products from their origin (in the forest) through different stages of processing, transport and distribution.

## **2. The Emergence of a Forest Certification Mechanism**

### ***A. The Impact of the Earth Summit negotiations on forest regulation***

International forest regulation differs substantially in form from other international environmental regulation. Most environmental resources, or environmentally related challenges, have one legally binding international instrument, and an accompanying institution that oversees the implementation of the agreement. Examples of such regimes include the biological diversity regimen, the wetland regimen, the climate change regimen, and the desertification regimen. Conversely, forests are not regulated by one single entity, and forest use and management is regulated under a number of voluntary international arrangements. It is commonly accepted that the failure at the Earth Summit 1992 to create a legally binding forest instrument led to the current unique style and form of international forest regulation.<sup>9</sup> Concerns that prevented the creation of a forest convention were those connected with state sovereignty and developing countries. The latter required compensation, technology transfer, and capacity-building assistance to implement obligations arising from such an agreement. As

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<sup>9</sup> See generally, David Humphreys, *Logjam: Deforestation and the Crisis of Global Governance*, (2006), 22.

documented in earlier chapters, the public international forest regimen has continued to be plagued by sovereignty and funding issues; its role within the international web of forest regulation is being increasingly questioned.

Cashore classified two distinct paths of international forest regulation emerging after the Earth Summit negotiations in 1992, and suggested that both of these paths emerged to side-step state sovereignty issues connected with forest resources.<sup>10</sup> The first path involved a process to define sustainable forest management. The ‘criteria and indicator’ approach to achieving sustainable forest management is the primary example of a defining international forest process. This method and others, do not prescribe standards to be met, nor do they require evidence of implementation. Instead, they concentrate on establishing definitions, practices and ways to measure progress towards a prescribed goal (sustainable forest management being the prescribed outcome in this instance).<sup>11</sup> Institutions that have favoured participating in defining focused approaches to forest management include domestic forestry agencies, intergovernmental negotiators, and public international agencies.<sup>12</sup>

The second approach favoured market-driven approaches to address worsening global forest conditions. The two main market-driven approaches concerning forest use and management are the development of markets for forest ecosystem services and forest certification schemes. While both of these are market-based in style, they seek to promote different forest values. Markets for forest ecosystem services are aimed at enhancing and preserving the protective values associated with forest areas, while forest certifications are more focused on improving harvesting and production. As such, these approaches are complementary (rather than competing with one another). Institutions that have favoured market-driven approaches include environmental groups, forest companies and retailers, governmental and aid agencies, and the World Bank.<sup>13</sup>

### ***B. Conditions allowing for the development of forest certification schemes***

Following on from the Earth Summit, there was growing dissatisfaction among environmental non-government organisations concerning international forest regulation. Such groups felt that governments would be unable to agree quickly on a legally binding international forest instrument. NGOs decided to capitalise on earlier trials of forest certification and labelling

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<sup>10</sup> Benjamin Cashore, et al, ‘Can Non-state Governance “Ratchet up” Global Environmental Standards? Lessons from the Forest Sector’, (2007), 16 (2), *Review of European Community and International Environmental Law*, 158.

<sup>11</sup> See Rametsteiner and Simula, above n6 who compare the similarities and differences between criteria and indicator process and certification: Ewald Rametsteiner and Markku Simula, ‘Forest certification – an instrument to promote sustainable forest management?’, (2003), 67, *Journal of Environmental Management*, 87, 91.

<sup>12</sup> Cashore et al, above n10.

<sup>13</sup> Ibid.

schemes.<sup>14</sup> The World Wide Fund for Nature (WWF) started certifying forest landowners and forest companies that complied with WWF's sustainable forestry definition and requirements. Similarly, Friends of the Earth created 'a good wood buyers guide'.<sup>15</sup> Such approaches departed from earlier environmental NGOs activities that had previously favoured boycott and awareness-raising campaigns.<sup>16</sup>

The certification of forest practices meant that NGOs had something with which they could start to negotiate with the timber industry. The timber industry in return was interested in the potential advantages offered by having 'green' credentials.<sup>17</sup> The more traditional boycotting and educational campaigns of environmental NGOs have previously only resulted in increased hostility between the two groups, while this new certification mechanism provided incentives for both sides. Furthermore, some environmentalists doubted the ability of timber boycotts to make much difference, because only a small percentage of tropical wood appears in export markets.<sup>18</sup> Certification negotiations, thus, opened the communication channels between the environment movement and the timber industry (something that all other international forest regulation has been unable to achieve). This is a positive development, because it had previously been thought that there was no common ground between the two groups.

During the 1990s, political leaders and others began to give increased attention to a promising set of new policies that recognised the potential role of market forces to achieve sustained environmental progress.<sup>19</sup> Parallel to this broader trend in environmental market regulation, there was increasing concern about the lack of progress in relation to tropical deforestation rates.<sup>20</sup> Unsustainable forest practices in the tropics were associated with market, policy and institutional failure.<sup>21</sup> Market failure occurs when forest goods and services are undervalued or not valued at all. According to Richards, the sources of market failure include:<sup>22</sup>

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<sup>14</sup> Friends of the Earth first started a timber certification scheme in 1985; the scheme was withdrawn after several years of experimentation due to concerns over the rigour of the system. See Simon Counsell and Kim Terje Lorrans, (eds), *Trading in credibility: the myth and the reality of the Forest Stewardship Council*, (2002), 12.

<sup>15</sup> Dan Klooster, 'Environmental certification of forests: The evolution of environmental governance in a commodity network', (2005), 21, *Journal of Rural Studies*, 403, 405

<sup>16</sup> Cashore et al, above n10.

<sup>17</sup> See in general on this point Klooster, above n9, 405.

<sup>18</sup> Ibid, 406.

<sup>19</sup> Robert Hahn and Robert Stavins, 'Incentive-Based Environmental Regulation: A New Era from an Old Idea', (1991), 18, *Ecology Law Quarterly*, 18.

<sup>20</sup> Benjamin Cashore, Graeme Auld and Deanna Newsom, 'Forest certification (eco-labelling) programs and their policy-making authority: explaining divergence among North American and European case studies', (2003), 5, *Forest Policy and Economics*, 225, 226.

<sup>21</sup> E Barbier, J Burgess and C Folke, *Paradise lost? The ecological economics of biodiversity*, (1994).

<sup>22</sup> Michael Richards, 'Can Sustainable Tropical Forestry be made profitable? The potential and limitations of innovative incentive mechanism', (2000), 28 (6), *World Development*, 1001, 1003

- Externalities in which the effect of an action on another party is not taken into account by the perpetrator
- Missing markets for environmental services and other open-access public goods
- Market imperfections (such as a lack of knowledge, which causes uncertainty).

Richards defined policy failure as state actions or policies that provide disincentives (either directly or indirectly) for sustainable forest management. Such actions or policies may be related to land tenure, the weak enforcement of laws, and subsidies that allow unsustainable timber practices to continue.<sup>23</sup> Richards provides that institutional failure takes place when institutions are poorly designed and when institutions do not coordinate well with other relevant institutions. Because governments are largely responsible for policy and institutional failures, non-state stakeholders are unable to intervene in such matters. However, market failure is an area that allows a role for non-state participants. Within the forestry context, markets were introduced to fill in missing markets (payment for ecosystem services), and also to address market imperfections (forest certification schemes).

### ***C. Theories which support certification regulation***

Vogel's work on consumer and environmental regulation identified two trends that can occur within market based regulation: the 'Delaware effect' and the 'California effect'.<sup>24</sup> The Delaware effect (which is sometime referred to as a 'race to the bottom') describes the phenomenon where businesses flee to less regulated markets.<sup>25</sup> Markets that operate in such conditions place price considerations above all others and, as such, usually correlate highly with unsustainable and environmentally degrading practices. An example of the Delaware effect is the operation of foreign timber companies in Indonesia. These companies are able to substantially reduce their overheads and operating costs by conducting their business in a forest sector marketplace where there is low enforcement of regulation and high levels of corruption.<sup>26</sup>

The opposite of the Delaware effect is the California effect (sometimes referred to a 'race to the top'). The California effect is a phenomenon where firms in highly regulated markets are able to influence the practices of those in less-regulated markets by imposing their higher

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<sup>23</sup> Ibid.

<sup>24</sup> David Vogel, *Trading Up: Consumer and Environmental Regulation in a Global Economy*, (1995).

<sup>25</sup> Benjamin Cashore, *Governing Through Markets*, in a paper presented at 'International Regime, Avoided Deforestation and the Evolution of Public and Private Forest Policies in the South', Paris, France, 21-23 April 2007.

<sup>26</sup> Vogel, above n24, 259.

standards upon their less-regulated competitors.<sup>27</sup> Vogel defines the California effect as having three components:<sup>28</sup>

1. The market advantage offered by stricter regulation (competitive advantage).
2. Rich nations creating domestic 'green product standards', forcing foreign producers to raise their product standards to maintain market access.
3. Agreements reducing trade barriers that provide rich and green nations with the opportunity to pressure other nations into adopting stricter product and production standards.<sup>29</sup>

Forest certification is an example of the California effect, whereby higher standards of timber producing and harvesting are imposed on countries whose own sustainable forestry standards are not enforced, or do not exist. As outlined above, global forest regulation shows evidence of both the Delaware and California effects.

Cashore's work builds on Vogler's studies by creating the term 'internationalisation'. Cashore finds an increasing trend towards domestic policy being scrutinised by transitional actors and international rules and measures. The influence of such scrutiny sometimes results in a reversal of the 'downward' effect of globalisation; this process is defined as internationalisation.<sup>30</sup> The concept of internationalisation provided lessons to environmental non-governmental organisations about the power of using market forces to shape policy responses (where efforts to change were often easier than attempting to influence domestic and international business dominated policy networks).<sup>31</sup> Many tropical countries lack the resources and governance capacity to effectively enforce forestry and land-use regulations and to provide secure land tenure. As a result, in the last two decades, market-based instruments involving non-state people (such as forest certification) have been promoted as an economically attractive alternative that is less dependent on public resources and governance capacity (and, therefore, potentially more effective in tropical developing countries).<sup>32</sup>

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<sup>27</sup> Cashore et al, above n10, 159.

<sup>28</sup> Vogel above n24, 259-260.

<sup>29</sup> Ibid.

<sup>30</sup> Steven Bernstein and Benjamin Cashore, 'Globalization, four paths of internationalization and domestic policy change: the case of eco-forestry policy change in British Columbia, Canada', (2000), 33 (1), *Canadian Journal of Political Science*, 67.

<sup>31</sup> Benjamin Cashore, Graeme Auld and Deanna Newsom, 'Forest certification (eco-labelling) programs and their policy-making authority: explaining divergence among North American and European case studies', (2003), 5, *Forest Policy and Economics*, 225

<sup>32</sup> Lars Gulbrandsen, 'Overlapping public and private governance: can forest certification fill the gaps in the global forest regime?', (2004), 4 (2), *Global Environmental Politics*, 75.

#### **D. Forest certification and free trade**

The International Tropical Timber Organisation (ITTO) is the international body that deals with trade in forest products. This body has two primary instruments: the *International Tropical Timber Agreement 2006* (ITTA 2006); and the *ITTO Action Plan 2008-2011*. The ITTA 2006 is a foundation document outlining objectives, definitions, organisational and administrative guidelines, and other miscellaneous articles. The objective of the instrument is to promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests.<sup>33</sup> This objective clearly indicates that the focus of this institution is on protecting the resource base for the international tropical timber industry.

The ITTA 2006 contains a number of definitions but the concept of 'sustainable forest management' is not ascribed a definition by the agreement.<sup>34</sup> The agreement creates two forms of membership: producer countries, and consumer countries.<sup>35</sup> The agreement gives equal voting power to consumer and producer companies, assigning each group 1000 votes.<sup>36</sup> These votes are broken down among the producer countries in Annex A to the agreement; countries' votes are determined by the scale of their tropical forest timber holdings. Developed countries that have tropical forest areas (such as Australia) are considered to be consumer countries by this instrument.

The agreement acknowledges the need for cooperation and coordination with other international institutions; however, the only body specially mentioned is the United Nations Conference on Trade and Development (UNCTAD), suggesting the focus of the agreement is squarely on the trade and production of tropical timber products.<sup>37</sup> Members to the agreement are required to make contributions to the administrative account (which covers the cost of the body's operations).<sup>38</sup> Other funds (such as the project funds which finances projects to improve sustainable forest management outcomes) are funded on a voluntary basis only.<sup>39</sup>

The other particularly interesting clause in the agreement is found in Article 34, which provides:

“Nothing in this agreement authorizes the use of measures to restrict or ban international trade in, and in particular as they concern imports of and utilization of, timber and timber products.”

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<sup>33</sup> Article 1 ITTA 2006

<sup>34</sup> See Article 2 (1), which provides that sustainable forest management will be understood according to the organisation's relevant policy documents and technical guidelines.

<sup>35</sup> *International Tropical Timber Agreement 2006*, Article 4.

<sup>36</sup> *International Tropical Timber Agreement 2006*, Article 10.

<sup>37</sup> *International Tropical Timber Agreement 2006*, Article 15.

<sup>38</sup> *International Tropical Timber Agreement 2006*, Article 18 (1) (a).

<sup>39</sup> *International Tropical Timber Agreement 2006*, Article 18 (1) (b).

The ITTO is a firm believer in the operation of free markets. The website of the ITTO provides:

“Market access refers to the extent to which products and services can be freely traded into export markets. In practice, the quest for complete market access has been motivated by a desire to gain maximum benefits from an expanding and liberalising global trend. However, improving market access has been laborious and contentious exercise, and governments continue to resort to a host of protective measures (in the form of tariff barriers, non-tariff barriers and other market impediments) in order to restrict trade (often to protect domestic industries).”<sup>40</sup>

The ITTO believes that policies – such as encouraging domestic processing, promoting products from sustainably managed forests, restricting imports of unsustainably and/or illegally produced, and trade forests – are barriers to free trade. This stance is inconsistent with many other international forest processes. Forest certification schemes work by labelling products from sustainably managed forests so that consumers have the opportunity to source products made from sustainably harvested timber. The Forest Law Enforcement and Governance Program (FLEG)<sup>41</sup> operates to prevent the importation of timber that is sourced from unsustainable sources. The recent amendment to the *Lacey Act* in the United States of America, now allows the government to fine, and even jail, those parties who traffic in illegally harvested timber.<sup>42</sup> Furthermore, the non-discrimination provision of the ITTO is in direct contrast to the operation of the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (which seeks to ban trade in endangered fauna and flora, including forest fauna and flora). It is suggested that the ITTO’s firm commitment to ‘non-discrimination’ should be reconsidered in light of the other international forest processes that seek to improve the management of forest areas through market intervention.

The *ITTO Action Plan 2008–2011* identifies a number of trends in the global trade of tropical forest products.<sup>43</sup> These indicate that:

- the incidence of poverty in forest-dependent communities remains high
- tropical forest areas and associated ecosystem services continue to be lost at an unsustainable rate
- deforestation contributes 20% to global greenhouse gas emissions
- forest certification schemes are having an impact on the international timber market

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<sup>40</sup> International Tropical Timber Organization, *Market Access*, (2004-2009), viewed 11 June 2009 at <http://www.itto.int/en/feature11/>

<sup>41</sup> Discussed in more detail in World Bank Chapters

<sup>42</sup> For further information on the operation of this Act, see: R Juge Gregg and Amelia Porges, *Amendment to the US Lacey Act: Implications for Chinese Forest Products Exporters*, (2008), viewed 11 June 2009 at [http://www.forest-trends.org/documents/publications/Lacey%20Act%20Brief\\_China\\_EN.pdf](http://www.forest-trends.org/documents/publications/Lacey%20Act%20Brief_China_EN.pdf)

<sup>43</sup> ITTO Working Group, *ITTO Action Plan 2008-2011: ITTO Policy Development Series No 18*, International Tropical Timber Organisation, (2008), 3.

- in many countries, the responsibility for the management of forest resources is increasingly being transferred to the private sector.<sup>44</sup>

Recognising that forest certification schemes have impacted on the international timber market could be interpreted as suggesting that the ITTO may eventually abandon the non-discrimination principle.

The thematic programs of ITTO for the 2008 to 2011 period are stated to be: Forest Law Enforcement, Governance and Trade; Community Forest Management and Enterprise, Trade and Market Transparency; Industry Development; and Efficiency and Reducing Deforestation and Forest Degradation and Enhancing Environmental Services in Tropical Forests.<sup>45</sup> The final program related to REDD is a new addition – and appears to be a reflection of the current global consensus that protection of remaining tropical forest areas is crucial in the mitigation component of addressing climate change.

The trade and market transparency program includes a number of interested actions: the promotion of public awareness about progress made in implementing SFM; and the increased availability of tropical timber from sustainably managed and legally harvested sources.<sup>46</sup> This objective of public awareness is also present in the ITTO *Yokohama Action Plan 2002–2006*.<sup>47</sup> The purpose of this is to increase public awareness about products available from sustainably managed sources. At the international level, there is lack of attention towards changing individual consumer behaviour. Eco-labelling programs have not been marketed in a way that individual consumers of forest products know they have the option to purchase timber products made from sustainable timber sources. The ITTO seems to have recognised this lack of effective marketing and communication, and is seeking to redress it. This action lends support to the view that the ITTO is moving away from the absolute principle of non-discrimination (as discussed above).

### 3. Forest Certification Institutions

#### A. Forest certifying bodies

There are a number of forest certification institutions. These institutions can be divided into two main groups: those that exist at the international level and require independent, third-party verification processes; and those that exist at the domestic level and involve internal

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<sup>44</sup> For example, as a result of the global economic downturn, the Queensland government in Australia decided to outsource management of forest reserves to the private sector. See: ABC News, *Asset sell-off only decided last week: Bligh*, (2009), ABC News Online <http://www.abc.net.au/news/stories/2009/06/03/2587961.htm> at 11 June 2009

<sup>45</sup> *ITTO Action Plan 2008-2011*, 5

<sup>46</sup> *ITTO Action Plan 2008-2011 Outcome 4 (B)*

<sup>47</sup> See Goal 2 Action 1.



verification. At the international level, the Forest Stewardship Council and the Pan European Forest Certification initiatives provide forest certification accreditation. Some country-based certification schemes have also emerged (such as the Sustainable Forestry Initiative in the United States of America, and the Canadian Standards Association, which has a forest certification arm).<sup>48</sup> The development of alternative forestry certification schemes (particularly industry certification schemes) has raised legitimacy concerns about the value and use of forest certification status.<sup>49</sup>

Legitimacy can be defined as a generalised perception (or assumption) that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of measures, values, beliefs and definitions.<sup>50</sup> The legitimacy of forest certification schemes can be considered from a number of standpoints, such as those of the: timber producer, the timber retailer, consumer, and independent environmental organisation. Work has been carried out by Cashore to examine why forest harvesters and retailers of forest products engage in forest certification processes. Because these schemes are entered into on a voluntary basis, it is relevant to understand why participants seek out forest certification.

According to Cashore, there are two main forms of legitimacy – pragmatic, and moral.<sup>51</sup> Pragmatic legitimacy rests on the self-interested calculation of an organisation's most immediate audiences (in which the material well-being of legitimacy grantor is enhanced). Moral legitimacy reflects a positive normative evaluation of the organisations and their activities. It rests not on judgements about whether a given activity promotes the goals of the evaluator, but rather on those about whether the activity is the correct thing to do. Cashore found pragmatic legitimacy played a larger role in explaining why firms may decide to engage in a voluntary regulatory forest certification scheme.<sup>52</sup> Van Kooten, Nelson and Vertinsky's work examines the reasons why firms may engage in certification practices. They find that companies primarily do so for economic interests and social capital (which is consistent with Cashore's findings).<sup>53</sup>

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<sup>48</sup> For an analysis of the differences between each certification scheme, see: Benjamin Cashore, et al, 'Private or self regulation? A comparative study of forest certification choices in Canada, the United States and Germany', (2005), 7, *Forest Policy and Economics*, 53, 57.

<sup>49</sup> Simon Counsell and Kim Terje Lorrans (eds), *Trading in credibility: the myth and the reality of the Forest Stewardship Council*, (2002), 36-37.

<sup>50</sup> MC Suchman, 'Managing legitimacy: strategic and institutional approaches', (1995), 20 (3), *Academic Management Review*, 571.

<sup>51</sup> Benjamin Cashore, Graeme Auld and Deanna Newsom, 'Forest certification (eco-labelling) programs and their policy-making authority: explaining divergence among North American and European case studies', (2003), 5, *Forest Policy and Economics*, 225, 228.

<sup>52</sup> Ibid.

<sup>53</sup> G Cornelis van Kooten, Harry Nelson, Ilan Vertinsky, 'Certification of sustainable forest management practices: a global perspective on why countries certify', (2005), 7, *Forest Policy and Economics*, 857.

There has also been work to examine why timber retailers engage with forest certification programs. Again, pragmatic legitimacy can explain their involvement. A particularly telling quote from a manager of a large homewares retailer in the UK (B&Q):

“We weren’t ever going to have customers demanding sustainable timber in our stores. But we knew that if our name [B&Q] was associated with the destruction of tropical forests or even temperate forests, our brand name would be damaged.”<sup>54</sup>

So it appears that those interested in the economic value of forests (timber producers and retailers) are enticed to engage in certification schemes from a practical business standpoint. The question is what opportunities would certification give a company – and, furthermore, what would be the ramifications if it did not engage in a forest certification scheme. Consumer’s knowledge of forest certification schemes, their labels and their standards is largely non-existent.<sup>55</sup> This lack of consumer knowledge is discussed further in the chapter, where it is proposed that a fundamental flaw in forest certification schemes is the lack of motivation and engagement of the consumers of timber products.

Some NGOs (e.g. the Rainforest Foundation) have concerns about the legitimacy of forest certification labels. Primarily, they are concerned that the label does not necessarily ensure that sustainable practices have been followed, and that different standards and interpretations are used when granting certification status.<sup>56</sup> The World Wide Fund for Nature (WWFN) previously partnered with the World Bank to implement the ambitious goal of securing 200 million hectares of the world’s production forests (independently certified as sustainably managed) by the year 2005. Although this target was not realised, the World Wide Fund for Nature and World Bank forest certification alliance is still in operation today.<sup>57</sup> The WWFN has frequently stated that it considers the Forest Stewardship Council as the only credible certification scheme currently available. The WWFN and World Bank alliance has significant potential to affect forest management in the Bank’s client countries.<sup>58</sup>

The remainder of this chapter will focus on the operation of the Forest Stewardship Council (FSC) as a case study for forest certification regulation. The FSC was selected as a case study for a number of reasons:

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<sup>54</sup> Peter Leigh Taylor, ‘In the Market but not of it: Fair trade coffee and Forest Stewardship Council Certification as Market-Based Social Change’, (2005), 33 (1), *World Development*, 129, 142.

<sup>55</sup> Research has been carried out in USA to determine consumers’ knowledge about forest certification schemes. Mario Teisl, ‘What we may have is a failure to communicate: labelling environmentally certified forest products’, (2003), 49 (5), *Forest Science*, 668.

<sup>56</sup> Counsell and Lorras, above n49.

<sup>57</sup> For more information on this, see World Bank Chapter.

<sup>58</sup> Klaus Dingwerth, ‘North-South Parity in Global Governance: The Affirmative Procedures of the Forest Stewardship Council’, (2008), 14, *Global Governance*, 53, 59

- Support from the World Bank and the WWFN for its operations and objectives
- The FSC was the first institution to establish forest labelling and standards processes and, to date, has certified timber practices in more than 82 countries<sup>59</sup>
- The FSC is the only internationally focused forest certification regimen<sup>60</sup>
- The unique institutional structure of the FSC.

### ***B. Governance of the Forest Stewardship Council***

In 1990, the Forest Stewardship Council (FSC) was created when timber users, traders and representatives of environmental and human rights organisations met in California, USA, to discuss the need for a credible system to identify products from well-managed forests. Immediately before the Earth Summit, the FSC held consultations in 10 countries to seek support for its proposals for a global certification and accreditation system for forests and forest products. When the Earth Summit failed to deliver a legally binding forest instrument, the FSC decided to pursue its agenda independently from existing public international institutions. The Founding Assembly of the Forest Stewardship Council was held in Toronto, Canada, in 1993, with 130 participants from 26 countries attending.<sup>61</sup> Originally, the FSC was funded through the World Wide Fund for Nature and B&Q (Home Improvement Company).<sup>62</sup> Today, the institution is self-funded through evaluation fees, accreditation fees, fees generated from use of trademarks, grants and donations, membership dues, and returns from investment.<sup>63</sup>

The Forest Stewardship Council Statute provides that the purpose of the association is to:<sup>64</sup>

- a. promote adequate management of forests and provide assistance to achieve environmentally appropriate and economically viable exploitation of natural resources;
- b. promote sustainable forestry principles through a voluntary accreditation program;
- c. conduct educational activities aimed at increasing the awareness of the importance of improving forest management;
- d. provide guidance and assistance to forest policy makers;

<sup>59</sup> Forest Stewardship Council, *Global FSC Certificates: type and distribution*, Forest Stewardship Council, (2009).

<sup>60</sup> The Pan European Forest Certification initiative is focused on Europe, but does allow for open for participation from other countries.

<sup>61</sup> See the Forest Stewardship Council Website: Forest Stewardship Council, *History*, (2008), Forest Stewardship Council, viewed 4 September 2009 at <http://www.fsc.org/history.html>

<sup>62</sup> Sally Eden, 'The work of environmental governance networks: Traceability, credibility and certification by the Forest Stewardship Council, (2009), 40, *Geoforum*, 383, 385.

<sup>63</sup> Forest Stewardship Council, *Forest Stewardship Council A.C. By-Laws* (Ratified September 1994), at clause 10 Finance.

<sup>64</sup> These have been summarised – for the full details, see: Forest Stewardship Council, *Statute*, (Revised August 2000, November 2002, June 2005, February 2009) at fourth clause.

- e. provide assistance and collaborate with all kinds of entities and agencies around the world, public or private, dedicated to forests;
- f. promote the development of all kinds of activities addressed to the preservation and maintenance of forests;
- g. establish offices for research, information, and analysis of forest matters.

The FSC is currently promoted in more than 80 countries worldwide through the use of forest management certification and chain of custody certification. Around 10% of the world's managed forested have been certified to FSC Standards.<sup>65</sup> The Council has, thus, played a significant role in shaping and implementing forest harvesting and production policy across the globe. There is, of course, still much scope for expanding the percentage of the world's forests managed according to such criteria. During the implementation of certification processes, a wide array of stakeholders has become involved in Council process (such as people and organisations involved in supplying wood and fibre to the worlds markets, landowners, forest managers, community groups and manufactures, traders and retailers). In broad terms, the FSC has been successful in developing and implementing international legal measures for the production and harvesting of timber.<sup>66</sup>

The institutional structure of the Council is worthy of examination due to its innovative design. The General Assembly is the highest organ of the FSC. Its by-laws require that the General Assembly consist of three chambers: a social and indigenous chamber, an environmental chamber, and an economic chamber.<sup>67</sup> Each of these is given 33.3% of voting power, and each must contain representatives of Northern (high-income countries) and Southern (low-income countries) counterparts. Bodies eligible for membership within the social and indigenous chambers must be indigenous and social movements seeking to promote environmentally appropriate, socially beneficial, and economically viable forest management.<sup>68</sup> Members of the environment chamber must be either a non-for-profit, non-governmental organisation, or an assigned individual with a demonstrated commitment to environmentally appropriate, socially beneficial, and economically viable forest management.<sup>69</sup> Those eligible for membership of the economic chamber are forest production companies, certification bodies, industry associations, wholesales, retailers, traders, end-users, and consulting companies.<sup>70</sup>

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<sup>65</sup> Forest Stewardship Council, *Strengthening Forest Conservation, Communities and Markets: The Global Strategy of the Forest Stewardship Council*, FSC Board of Directors and Staff, (2007), 1.

<sup>66</sup> Dingwerth, above n 58, 58-59.

<sup>67</sup> Forest Stewardship Council, *Forest Stewardship Council A.C. By-Laws*, (Ratified September 1994) at clause 11, 12, 13.

<sup>68</sup> Forest Stewardship Council, *Forest Stewardship Council A.C. By-Laws*, (Ratified September 1994) at clause 31.

<sup>69</sup> Forest Stewardship Council, *Forest Stewardship Council A.C. By-Laws*, (Ratified September 1994) at clause 31.

<sup>70</sup> Forest Stewardship Council, *Forest Stewardship Council A.C. By-Laws*, (Ratified September 1994) at clause 28.

The structure of the General Assembly ensures that all relevant stakeholders are represented and, furthermore, that such groups obtain voting rights. It also means that one group is not able to dominate the agenda, and requires the stakeholders from the three chambers to work together to identify mutually acceptable policies. As a result, stakeholders are likely to feel more ownership of the policy and procedures of the FSC because their input and involvement in the process ensures adequate representation. It also means that while one chamber may not get everything that it wants, it will be at least happy with the compromise reached during the process. In terms of voting arrangements, the by-laws require all decisions to be made by consensus; in the event that this is not possible, 66.6% of the vote is required to make a change.<sup>71</sup> The voluntary acceptance of the Forest Stewardship Principles can, in part, be explained by this representation of interests within the founding organ. Pragmatists who believe that all forest stakeholders must be able to live with the policy would support such approaches.

While the governance structure of the Council recognises the importance of economic, environmental and social representation, it has been suggested that recognition alone will not be sufficient to ensure that the interests of different parties are met. In particular, Dingwerth identifies barriers linked to appropriate Southern recognition.<sup>72</sup> There are a number of issues associated with selecting the most suitable people to represent Southern interests. Firstly, there needs to be recognition of the great diversity within Southern interests, and there needs to be representatives from a variety of these countries. Currently within the FSC, Latin America is well represented while stakeholders from African and Asian countries play a lesser role in the governance processes.<sup>73</sup> This lack of representation may also explain why certification rates are lower in these countries. Secondly, those people selected must be involved from the national or local level to ensure that representation is fulfilling its purpose (i.e. local people and their issues are understood by the organisation).

There is some concern that, because the Council is an international certifying body, it responds to local issues (i.e. as well as other certifying bodies with a regional focus).<sup>74</sup> In total, 28 national or regional standards have been created by the FSC. Of these, eight are in Southern countries, and all of these regional standards have been created within Latin America.<sup>75</sup> There

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<sup>71</sup> Forest Stewardship Council, *Forest Stewardship Council A.C. By-Laws* (Ratified September 1994) at clause 15.

<sup>72</sup> Dingwerth, above n58, 53.

<sup>73</sup> For a breakdown of membership and board membership, see: Klaus Dingwerth, 'North-South Parity in Global Governance: The Affirmative Procedures of the Forest Stewardship Council', (2008), 14, *Global Governance*, 53, 54-65.

<sup>74</sup> This issue will be discussed in more detail below, however, there are essentially different standards for different countries within the FSC regulatory framework.

<sup>75</sup> Dingwerth, above n58, 66.

has, thus, been no regional development of Council policies in Africa or Asia. The lack of regional policies in these two regions means that local forest issues and conditions are not currently addressed there by FSC operating modalities. This suggests the Council needs to strategically expand its operations into those countries in Asia and Africa responsible for producing and harvesting global timber supplies.

In a similar vein, it has been suggested that the economic chamber dominates within the Forest Stewardship governance structure. While each chamber is given equal voting rights, the membership levels of each chamber are not equal. The economic chamber accounts for 46% of membership the environmental chamber 36%, and the social chamber holds the remaining 18%.<sup>76</sup>

It has been suggested that, while the FSC was initially conceived by NGO groups, increasingly large-scale commercial interests are gaining control over its operations. Two particular issues concerning the social chamber and its participation were identified by an environmental NGO that commissioned a report on the operations of the FSC.<sup>77</sup> Firstly, there was concern that in many instances local forest stakeholders were not adequately consulted during certification processes. In some instances, certification was issued over areas seen as illegitimately imposed on traditional land tenure regimes.<sup>78</sup> Secondly, there was evidence that FSC operations at the national level did not actively ensure that each chamber was adequately represented during negotiations.<sup>79</sup> While voting rights are divided according to the three chambers, over-representation of the economic chamber at meetings means that its influence and interests are able to permeate council decisions. This accords with Dingwerth's view that recognition of the three interest groups within the chamber does not necessarily align with the three chambers gaining equal control over the development and implementation of policies.<sup>80</sup> In essence, there is concern that the timber industry is gaining increasing control over the principles, measures, and standards of the organisation. There is, however, evidence to suggest that the Council has recognised these criticisms, and has developed new guidelines for regional stands, implemented groups certification, and channelled more support to the social chamber.<sup>81</sup>

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<sup>76</sup> Simon Counsell and Kim Terje Lorrans (eds), *Trading in credibility: the myth and the reality of the Forest Stewardship Council*, (2002), 32.

<sup>77</sup> *Ibid*, part 3.

<sup>78</sup> *Ibid*, 32.

<sup>79</sup> For example, at the UK FSC national meeting, there were 30 members present, with only three representing social interests. Simon Counsell and Kim Terje Lorrans (eds), *Trading in credibility: the myth and the reality of the Forest Stewardship Council*, (2002), 33.

<sup>80</sup> Dingwerth, above n58, 66.

<sup>81</sup> Stephen Bass, 'Global Forest Governance: Emerging Impacts of the Forest Stewardship Council', paper presented at the International SUSTRA Workshop "Architecture of the Global System of Governance of Trade and

### **C. Non-state governance**

The Forest Stewardship Council is governed through a non-state, market-driven network. This form of governance is also referred to as private systems of regulation, private governance and non-governmental market-based regulation.<sup>82</sup> The FSC is an often-cited example of a new environmental governance network that operates across science, policy and business sectors.<sup>83</sup> Importantly, this new governance network operates largely outside of existing structures and the authority of government; as a result, such governance networks are not given guaranteed power (but instead must compete for authority).<sup>84</sup> Perhaps this competitive process makes such institutions more responsive, adaptive, and inclusive of relevant stakeholder's inputs (because firms must establish their right to exist and govern).

Some features of non-state, market-driven governance include:<sup>85</sup>

- Governments do not create or require adherence to the rules
- An institution and its processes are more open and transparent and involve a wide range of stakeholders
- Profit-maximising firms are required to undertake costly reforms that they would not otherwise pursue
- Authority is granted through the market's supply chain (consumer demand)
- Existence of verification procedures designed to ensure that the regulated entity actually meets the stated standards.

The Forest Stewardship Council has been described as being a transnational regime. This type of regime emerges when international regulation is either absent or relatively weak.<sup>86</sup> Within these regimes (as already discussed), it is the non-state participants that create the principles, measures, rules, and decision-making procedures. Bass comments:

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Sustainable Development", Berlin, 9-10 December 2002, 7; and Forest Stewardship Council, *FSC Social Strategy: Building and Implementing a Social Agenda*, Forest Stewardship Council International Center, (2003). The social strategy was created to address a number of issues raised by social constituencies, such as: respecting the rights of people involved in, or impacted by, forest management; addressing issues of scale and intensity; and building capacity in the FSC system. See also the Global Strategy of the Forest Stewardship Council that identifies the need to improve social criteria.

<sup>82</sup> Eden, above n63, 384.

<sup>83</sup> See Rametsteiner, above n4, and Peter Leigh Taylor, 'In the Market but not of it: Fair trade coffee and Forest Stewardship Council Certification as Market-Based Social Change', (2005), 33 (1), *World Development*, 129.

<sup>84</sup> Eden, above n63, 383.

<sup>85</sup> Cashore et al, above n10, 161-162.

<sup>86</sup> Dingwerth, above n58, 54.

“It is notable how FSC has been able to develop norms of behaviour, develop procedures for compliance, tackle the issue of multifactor coherence, and ensure a case-based approach to judgement and appeal. In other words – to develop ‘law’.”<sup>87</sup>

Dingwerth identifies other references to the status of the Council procedures as being quasi-legislative processes aimed at developing specific standards for private and public behaviour. Another reference suggests that the FSC is one of the most advanced cases of non-state-driven rule-making dynamics in the environmental field globally.<sup>88</sup> This suggests that transnational regimes (such as the FSC) have created new avenues for forest law and rule-making completely independent of traditional sovereign powers as given to states to regulate over the use and management of forests and forest resources.

However, it should not be thought that governments (or state actors) play no role within transnational regimes. While it is true that governments are not ultimately responsible for the creation of the regime, government support and participation within transnational regulatory approaches may contribute significantly to the success of the regime. Government support for forest certification programs may range from setting up governmental certification systems, to providing incentives or finance for forest certification, ensuring compatibility of regional codes, or offering no action at all.<sup>89</sup> Rametsteiner identifies two roles for governments within forest certification schemes: firstly, governments must ensure the compatibility of domestic and international laws and the forest certification requirements; and secondly, governments need to determine their degree of active involvement within these private rule-making certification bodies. For example, in instances where the government owns the forest resources, it could undertake the certification of their practices.

Clause 8 of the FSC by-laws provides that the institution be a non-profit, non-governmental organisation that is to remain independent of control by commercial interests, government, and multilateral and bilateral agencies. Contemporary circumstances have created opportunities for NGOs to play a greater role in the development and implementation of international law.<sup>90</sup> This has been explained, in part, by a shift in international law from focusing on state interests to focusing on individual interests.<sup>91</sup> Eden suggests that NGOs have the potential to better link scientific knowledge with policy and instrument requirements. This

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<sup>87</sup> Stephen Bass, ‘Global Forest Governance: Emerging Impacts of the Forest Stewardship Council’, paper presented at the International SUSTRA Workshop “Architecture of the Global System of Governance of Trade and Sustainable Development”, Berlin, 9-10 December 2002, 7.

<sup>88</sup> Dingwerth, above n58, 59.

<sup>89</sup> Rametsteiner, above n4.

<sup>90</sup> For example, the International Committee of the Red Cross is charged with monitoring compliance with international humanitarian law as it relates to prisoners of war.

<sup>91</sup> Charlotte Ku and Paul Diehl, ‘Filling in the Gaps: Extra systemic Mechanisms for Addressing Imbalances between the international legal operating system and the normative system’, (2006), 12, *Global Governance*, 161, 167.



is because NGOs are often regarded as being less formalised, more reactive, and less bureaucratic than traditional policy agencies.<sup>92</sup> There is now wide acceptance by many scholars of the positive influence that NGOs can play in contemporary international law in areas related to human beings, rights, environmental protection, sustainable development, indigenous rights, non-violent conflict resolution, participatory democracy, social diversity, and social and economic justice.<sup>93</sup>

NGOs are not without their critics, however. There are those who argue that NGOs are undemocratic because they are narrowly elected bodies and pursue particular-interest agendas. Other critics suggest that the policies of NGOs are based on emotional and moral responses (as opposed to being grounded in objective and scientific criteria).<sup>94</sup> Furthermore, there are some concerns that NGOs lack the capacity to carry out the wide range of tasks assigned, or self-assigned, to them.<sup>95</sup> These criticisms levelled at NGOs have become outdated as NGOs involvement in international regulation increases. International negotiations now seek to ensure that a broader range of civil society is represented through voluntary associations, movements, parties, and unions.<sup>96</sup>

#### **4. Forest Certification Instruments**

The fundamental instrument of the Forest Stewardship Council is the *FSC International Standard*,<sup>97</sup> this contains 10 principles and associated criteria for meeting these principles. These apply to all tropical, temperate, and boreal forests. More detailed standards for particular forest types and conditions may be prepared at the national and local level (by FSC regional bodies).<sup>98</sup> The standards outline the FSC-approved principles and practices. In response to criticism over the costs associated with certification for small forest holders, an additional standard has been created for use in small and low-intensity managed forests.<sup>99</sup> This standard is used in conjunction with other instruments. The certification process involves the creation of accredited bodies to carry out assessments of certification compliance. Such a process necessitates the creation of policies on procedures for obtaining accreditation and guidelines for certifiers.

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<sup>92</sup> Eden above n63, 384.

<sup>93</sup> Ku and Diehl, above n91, 171.

<sup>94</sup> Eden, above n63, 384.

<sup>95</sup> Ku and Diehl, above n91, 171.

<sup>96</sup> Mary Kaldor, 'The Idea of Global Civil Society', (2003), 79 (3), *International Affairs*, 585.

<sup>97</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship*, (1996).

<sup>98</sup> Forest Stewardship Council Australia has an objective of creating regional principles and criteria but, at this stage, uses the international standard.

<sup>99</sup> Forest Stewardship Council, *FSC Standard: SLIMF Eligibility Criteria*, (2004).

### **A. The Forest Stewardship Council process**

Applicants have a choice of three different types of certification. The first is forest management certification, and this is designed for those who want to provide forest operations that are socially beneficial, and managed in an environmentally appropriate and economically viable manner. The second option is chain-of-custody certification for companies that manufacture, process, or trade in timber and want to demonstrate to their customers that they use responsibly produced raw materials. The third option is controlled wood certification, which is used by companies to control the non-certified wood in their products. There are five stages for an applicant for FSC certification status:<sup>100</sup>

1. The applicant approaches a certification body, which will estimate the costs and time associated with forest certification on their lot. Details of certification bodies are available on the FSC international and regional websites.



2. After consulting with one or several certification bodies, the applicant decides which certification body to work with, and then enters into an agreement with that body.



3. A certification audit takes place to assess the applicant's suitability for certification status. During this process, the certifier visits the forest site and requires certain documentation from the applicant.



4. The data collected at the audit is used to compile an auditor's report – the auditor uses this to make a decision about whether to grant certification status.



5. If the certification status is positive, the applicant will receive FSC certification and will be able to use its logo on their products. The audit report may reveal that the applicant needs to modify some practices to achieve certification status. The applicant can then modify its practices and undertake a further audit to demonstrate compliance with the FSC requirements. Once a forest certification status has been given, it is valid for five years.

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<sup>100</sup> Forest Stewardship Council, *5 Steps towards FSC certification*, (2009), Forest Stewardship Council, viewed 11 September 2009 at <http://www.fsc.org/106.html>

Holders of certification status are required to undergo an annual audit assessment, and this is carried out by the certification body that verifies if there is continued compliance with FSC requirements.

### ***B. The FSC International Standard***

The FSC International Standard is an instrument designed to outline the objectives and requirements of the FSC. The Council does not insist on perfection in satisfying the principles and criteria contained within the standard; however, major deficiencies in an individual principle will normally disqualify a candidate from certification (or lead to de-certification). Flexibility is required in interpreting the standard to take into account local forest conditions and local forest practices.

*Principle 1* requires compliance with the prevailing law and with FSC principles. Essentially, this requires that forest areas be certified with respect to all international, national, and local laws, and to administrative requirements. If local laws require a higher standard forest certification status, the applicant would be obliged to meet that standard. In the event of conflict between local laws and FSC criteria, discretion is given to the certifying body to resolve the issue.<sup>101</sup> It must be assumed that, in such instances, the certifying body meets the domestic law requirement (otherwise, the applicant may face a penalty; concerns about state sovereignty may also arise).

*Principle 2* deals with issues connected to tenure and land-use rights and responsibilities. For certification status to be granted, an applicant must show evidence of long-term forest use rights to the land. Evidence may be in the form of land title recognition, evidence of customary rights over land, or a valid lease agreement where the duration is compatible with granting certification status. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an applicant from being certified.<sup>102</sup> In many developing countries, proving tenure security and use rights may prove difficult for some applicants.<sup>103</sup> It is suggested that the FSC could undertake some capacity-building work aimed at improving tenure security for applicants in these areas to assist them with meeting this requirement.

*Principle 3* requires that areas under FSC certification recognise and respect any indigenous holders' rights over the land certified. In particular, it is stated that forest management should not threaten or diminish (either directly or indirectly) the resources or tenure rights of

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<sup>101</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 1.4.

<sup>102</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 2.3.

<sup>103</sup> Tenure Land Use and Rights Initiative.

indigenous people.<sup>104</sup> The inclusion of indigenous considerations on the face of it appears praiseworthy. However, there is some evidence to suggest that certification has been issued over areas where indigenous land-use rights have not been adequately recognised or respected.<sup>105</sup>

*Principle 4* deals with community relations and workers rights. The principle requires that forest management operations maintain or enhance the long-term social and economic well-being of forest workers and local communities. Forest certification does not currently involve a fair trade component. Such a component would require that forest workers were paid a reasonable wage. There has been some criticism directed at forest certification schemes on this point, and it has been suggested that the schemes could learn from fair trade initiatives.<sup>106</sup> The Council has responded by starting an FSC and fair-trade dual certification pilot project. This is an 18-month project aiming to develop an affordable dual certification system for communities that will, ultimately, be incorporated into the existing FSC and fair-trade certification systems.

*Principle 5* requires that forest management encourages the efficient use of the forest's multiplicity of products and services to ensure economic viability as well as a wide range of environmental and social benefits. It encourages diversification of the local economy by avoiding dependence on a single forest product.<sup>107</sup>

*Principle 6* deals with the environmental impacts associated with the operations of harvested forests. It obliges forest managers to conserve biological diversity and its associated values (such as water resources, soils, and unique and fragile ecosystems). Representative samples of existing ecosystems within landscapes are to be protected in their natural state and recorded on maps.<sup>108</sup> Also, genetically modified organisms are prohibited on certified forest lands.<sup>109</sup>

*Principle 7* deals with the requirements of a management plan. The plan must, among other requirements, contain: management objectives; a description of forest resources; environmental limitations; land-use and ownership statutes; socio-economic conditions; a

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<sup>104</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 3.2.

<sup>105</sup> Counsell and Lorras, above n 49, 32.

<sup>106</sup> Leigh Taylor, above n 54. .

<sup>107</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 5.4.

<sup>108</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 6.4.

<sup>109</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 6.8.

profile of the adjacent land; a description of silvicultural management system; a rationale for the rate of annual harvest; and provisions for monitoring forest growth.<sup>110</sup>

*Principle 8* deals with monitoring and assessment obligations. These are imposed upon the certification holder and are determined by reference to the scale and intensity of forest management operations, as well as the relative complexity and fragility of the affected environment.<sup>111</sup> Monitoring, at a minimum, must include data on: the yield of forest products harvested; growth and regeneration rates; composition and observed changes in the flora and fauna; environmental and social impacts of harvesting and other operations and costs; and productivity and efficiency of forest management.<sup>112</sup>

*Principle 9* requires that areas containing conservation attributes be identified during the certification process. Management activities in identified high conservation value areas should maintain or enhance such attributes. Decisions regarding high conservation value forests shall always be considered in the context of the precautionary approach.<sup>113</sup>

*Principle 10* deals with the requirements for establishing and managing a plantation certified forest. Some of the conditions imposed include wildlife corridors, streamside zones, and a mosaic of strands of different forest ages and rotation periods.<sup>114</sup>

## **5. Implementation of Forest Certification Schemes**

### ***A. Implementation of Forest Stewardship Council certification to date***

To date, about 5% of the world's productive forests have received forest stewardship certification status. This equates to around 100 million hectares worldwide, distributed across 82 countries. The value of timber from Forest Stewardship Council sales is estimated to be at over US\$20 billion.<sup>115</sup> The Council breaks down certification status into six regions (highest to

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<sup>110</sup> See Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 7.1(a-f).

<sup>111</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 8.1.

<sup>112</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship* (1996), 8.2.

<sup>113</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship*, (1996), 9.

<sup>114</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship*, (1996), 10.2.

<sup>115</sup> Forest Stewardship Council, *FSC facts and figures* (2009) Forest Stewardship Council, viewed 16 September 2009 at <http://www.fsc.org/facts-figures.html>

lowest of total certified areas): Europe, 45.21%; North America, 34.5%; South America and the Caribbean, 10.15%; Africa, 6.18%; Asia, 2.57%; and Oceania, 1.40%.<sup>116</sup>

The FSC is deservedly proud of securing 5% of the world's productive forest estate under their regime. This accomplishment is significant in light of the international and national forestry-related political, economic, social and environmental issues that have plagued progress in other international forestry regimes. No other international forest institution can publish figures demonstrating their impact on the ground to be above the 5% global level achieved by the FSC. It should be noted in this context, though, that the Council figures refer only to the world's productive forest estate, not the entire global forest estate (i.e. productive and protective forest areas). While 5% is significant, there is clearly a need for greater expansion of areas under Council certification; there is still much progress to make before forest certification schemes operate over the majority of the world's productive forest estate.

On examining the regions with the highest certification levels, it becomes clear that Europe (45.21%) and North America (34.5%) dominate. It has been suggested by a number of commentators that certification within these regions is, perhaps, not as necessary as certification in tropical and or developing countries (where the bulk of unsustainable and illegal timber harvesting takes place).<sup>117</sup> It could be suggested that the majority of forestry practices in Europe and North America have only had to make minimal changes to their forestry operations, because existing command-and-control type domestic legislation already requires compliance with forest sustainable practices. The certification process would, nevertheless, have improved existing forest practices. Following on from this, it could be suggested that the Council has not actively changed the implementation of sustainable timber practices in 5% of the world's productive forest estate but, rather, influenced the practices of sustainable timber harvesting in 5% of it.

There is need for this form of non-state, market-driven governance regimen to expand in countries where compliance with sustainable timber practices is weak or non-existent. This is because domestic regulatory approaches indicate a lack of capacity or unwillingness to implement sustainable timber practices. Such regulation stands more chance of being implemented in these regions if there are appropriate incentives and support at government and community level. Incentives may come in the form of increased market access, potential price premiums for sustainably harvested timber (this is something that forest certification schemes have not yet been able to offer their participants), or improved community

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<sup>116</sup> Forest Stewardship Council, *Global FSC certificates: type and distribution*, (2009), viewed 16 September 2009 at [http://www.fsc.org/fileadmin/web-data/public/document\\_center/powerpoints\\_graphs/facts\\_figures/09-06-15\\_Global\\_FSC\\_certificates\\_-\\_type\\_and\\_distribution\\_-\\_FINAL.pdf](http://www.fsc.org/fileadmin/web-data/public/document_center/powerpoints_graphs/facts_figures/09-06-15_Global_FSC_certificates_-_type_and_distribution_-_FINAL.pdf)

<sup>117</sup> Rametsteiner and Simula, above n6.

engagement and control over forest estates. The expansion of forest certification schemes is, thus, reliant upon the FSC improving opportunities and incentives for forestry operations in developing countries to become certified. As noted by one authority in the area of forest certification:

“The original goal of certification programmes was to protect tropical forests. However, today certified logging operations exist mostly in boreal and temperate environments; at present only 17% of FS –certified forests are located in the tropics”.<sup>118</sup>

Given the significantly higher need for conservation in tropical forests, it is crucial to understand the factors limiting the adoption of certified forest management in countries with tropical forests.<sup>119</sup> The identification of these ‘barriers’ to forest certification will assist in the prediction of the likely success rate of certification in different tropical forest countries. Ebeling and Yause suggest that once these certification rates have been established, the realistic potential of forest certification mechanism as a global forest conservation tool for tropical forests will be better understood. Focus could then be directed towards improving capacity for participation within certified forestry initiatives in targeted tropical forestry countries. Alternatively, certification could be promoted in tropical forestry countries where existing policy is most compatible and supportive of certification requirements.<sup>120</sup> Such a strategy would allow the FSC to expand its operations in tropical forestry counties, which would increase its influence over the tropical forest timber industry overall.

### ***B. Barriers to further Implementation of forest certification initiatives***

There are a number of barriers that need to be overcome for forestry certification schemes to be implemented more broadly. Some of the barriers preventing their further expansion are the same ones faced by other international forestry regimes (for example, land/tenure security). Other barriers, like consumer awareness, are unique to forest certification regimens; some apply to all countries, while others apply more so in developed countries or developing country contexts. The general barriers (such as costs and government support) will initially be examined here, then particular barriers that arise in the developed country context (such as the standard gap and tenure security issues), and followed by issues in timber consumer countries linked to consumer awareness of certification schemes.

Barriers to forest certification, which are applicable in both developing countries and in timber-consuming countries, are the costs/benefits associated with certification and

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<sup>118</sup> Cashore, et al, above n10, 7.

<sup>119</sup> Johannes Ebeling and Mai Yasue, ‘The effectiveness of market-based conservation in the tropics: Forest certification in Ecuador and Bolivia’, (2009), 90, *Journal of Environmental Management*, 1145, 1146.

<sup>120</sup> Ibid.

government support/compatibility with certification requirements. Because forestry certification is a voluntary process, it has to be assumed that those who decide to engage in such initiatives perceive there to be some form of benefit associated with meeting and complying with the requirements.<sup>121</sup> (The cost of participating in voluntary initiatives will be at the forefront of participant’s minds.) It has been identified within existing literature that the cost of forest certification is a significant barrier to the expansion of forest certification programs.<sup>122</sup> Forest managers must cover the costs of audits, certification fees and corrective action requests. In Mexico, the average evaluation and monitoring costs are \$US36,000 over 5 years – if corrective action requests were included, the cost would reach \$60,000 over 5 years.<sup>123</sup>

Linked to concerns surrounding the cost of certification is the issue that forest certification schemes have, as yet, been unable to deliver higher returns to those participants within the certification scheme.<sup>124</sup> Although demand for certified wood is growing, price premiums have rarely materialised<sup>125</sup>. This means that the cost of certification is not currently recoupable through improved or higher premiums for sustainable timber. Therefore, a cost/benefit analysis in terms of whether to certify or not would go against certification from a solely financial perspective. This suggests that, to be convinced their purchases are from sustainable sources, the direct costs of auditing, verification and certification fees may need to be reduced (at least until the FSC can provide participants with access to eco-markets where consumers are willing to pay a premium). Klooster states:

“Some analysts doubt that forest certification will ever generate price premiums able to cover the cost of evaluations, audits, licensing and the management improvements that it usually requires. Retailers are the most powerful actors in wood commodity chains, and they have little interest in either increasing the cost of the products to consumers or in passing any increased revenue back to their certified suppliers.”<sup>126</sup>

The Council has recognised that the costs associated with certification may limit the ability of small forest landholders or community groups to participate in certification processes. Larger managed forest areas can achieve economies of scale concerning certification costs (leading to lower indirect costs of certification). To reduce the cost of certification for such small- and low-intensity managed forests, the FSC permits certification bodies to evaluate and report on these

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<sup>121</sup> This is discussed in more detail in section 8.3.1. Also see: Christine Overdevest and Mark Rickenbach, ‘Forest certification and institutional governance: An empirical study of forest stewardship council certificate holders in the United States’, (2006), 9, *Forest Policy and Economics*, 93.

<sup>122</sup> Leigh Taylor, above n54.

<sup>123</sup> Klooster, above n15, 408.

<sup>124</sup> Ibid.

<sup>125</sup> Ebeling and Yasue, above n20, 1146.

<sup>126</sup> Klooster, above n15, 412.



forests using streamlined certificated procedures. A small forest management unit is defined as any lot up to 1,000 hectares.<sup>127</sup> It has been suggested that a streamlining of certification procedures alone would not reduce the cost significantly, because it is the documentation and monitoring costs associated with certification regimes that increase the costs.<sup>128</sup>

Government support for forest certification schemes has the ability to motivate forest stakeholders to participate in certification operations. If domestic forest laws are compatible with certification requirements, this will increase the likeliness of participation, and only minimal change (if any) will be required to be made to existing practices.<sup>129</sup> Furthermore, if the government provides incentives for forest certification (for example, tax benefits,<sup>130</sup> or preferential treatment for state leasehold land), this will also impact upon the number of stakeholders engaging in forestry certification schemes. A study examined why forest certification rates were higher in Bolivia than in Ecuador. Bolivia, a poorer country, had high rates of certification due to strong government support (evidenced through compatible domestic forestry laws, tax incentives to offset certification fees). Little corruption within its Forestry Department was another factor that led to an increase in FSC certification.<sup>131</sup>

In developing countries, barriers to the expansion of forest certification include the standard gap between domestic requirements and certification requirements, and issues connected with tenure security. In many industrialised countries, effective enforcement of forestry regulations leads to a small gap between actual forestry practices and certification standards. In contrast, poor environmental law enforcement in most developing countries – the original impetus for non-state market-driven forest certification – arguably creates a hurdle for certification.<sup>132</sup> The introduction of certifiable forest management practices can entail considerable direct and indirect costs. Logging operations in tropical developing countries often are poorly planned and do not follow legal requirements due to weak enforcement of forestry laws.<sup>133</sup> The implementation of sustainable forestry criteria would likely result in increased costs associated with planting and the harvesting of trees, and may also result in certain areas being restricted from harvesting. Such changes would make forestry operations less lucrative in the short term (though the returns may well be greater in the long term if it is assumed that the area previously logged was to remain barren). Those with long-term

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<sup>127</sup> Forest Stewardship Council, *FSC Standard: SLIMF Eligibility Criteria*, (2004), 2.2.

<sup>128</sup> A Molnar, *Forest Certification and Communities: Looking Forward to the Next Decade*, Forest Trends, (2003).

<sup>129</sup> Ebeling and Yasue, above n120.

<sup>130</sup> In Bolivia, forest certificate holders enjoy tax benefits of 14-28%, which roughly offsets direct certification costs. Certified producers are also exempted from government audits, saving them time and money. *Ibid*, 1149.

<sup>131</sup> *Ibid*.

<sup>132</sup> *Ibid*, 1151.

<sup>133</sup> *Ibid*, 1146

interests in the land would have more motivation to follow sustainable practices than those with no long-term formal rights to the land. For forest certification schemes to be implemented, the following must apply:

“Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.”<sup>134</sup>

Tenure security and community land-use rights to forest areas remain a challenge for certification schemes. It is a necessary requirement for long-term tenure and forest resource use rights to exist. This ensures it is worthwhile for the landholder and the certifying body to pursue and implement certification practices. However, in many regions where forest certification schemes would be the most useful, there are areas that lack tenure security and land use rights. This means that forest land users have little incentive to comply with certification guidelines. The FSC could seek to identify large-scale timber harvesting areas that have uncertain tenure status. It could then work with these groups to pursue tenure security on the basis that such support requires the parties to comply with the sustainable forestry certification practices. This would act as an incentive for forest users because they would obtain long-term access to an area, and improve their long-term livelihood through the practice of sustainable harvesting techniques.

In consumer timber countries, the single most important barrier to expansion of forest certification is addressing the lack of knowledge and understanding about forest certification operations. If there is a market demand for sustainably harvested timber, the supply side will respond. But this demand will not emerge unless there is awareness that forest practices can be independently certified to comply with forest sustainability criteria. Therefore, there needs to be mass information campaigns, directed at consumers, advising that it is possible to source sustainable timber.

In the United States, a study determined consumers’ knowledge and understanding of forest certification logos,<sup>135</sup> and the results were based upon 1,948 written survey responses. Two experiments were conducted: it tested consumers’ reaction to different styles of eco-labels; and it examined the factors relevant to consumers when making timber purchases. The eco-label section found that altering the amount of information on the label significantly altered the credibility of the certifying body.<sup>136</sup> The research confirmed earlier information that the credibility of an eco-seal could be greatly enhanced by the inclusion of contact information.

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<sup>134</sup> Forest Stewardship Council, *FSC International Standard: FSC Principles and Criteria for Forest Stewardship*, (1996), 2.

<sup>135</sup> Mario Teisl, ‘What we may have is a failure to communicate: Labelling Environmentally Certified Forest Products’, (2003), 49 (5), *Forest Science*, 668.

<sup>136</sup> *Ibid*, 673.

The research used two current eco-labels (the FSC label and the Sierra Club Label); it also included the logotypes of the US Environmental Protection Agency and the Main Wood Producers Association. In the study, the Sierra Club was perceived to be most credible label, and the FSC one as the least credible. It was suggested that the Council's label might be the least credible because credibility is greatly influenced by a person's familiarity with the source.<sup>137</sup> This finding suggests that the FSC has a much work to do in promoting its label and increasing consumers' awareness and familiarity with its objectives.

In relation to consumers and their timber-purchasing behaviour, the study found that presenting environmental information to respondents significantly affected their choice of product. When no environmental information is presented, and the only distinguishing feature between products is price, respondents choose the lowest-priced product. It would, therefore, be in the Council's interest to explore options for mandatory disclosure requirements on timber products. The survey also found that when the respondents had to view multiple products with competing environmental seals, they assumed that the environmental characteristics of the higher-priced product were better. At least some of these individuals were willing to pay the price differential between the two certified products.<sup>138</sup> This finding is consistent with other findings that Northern consumers are, indeed, prepared to pay a significant premium for certified timber products.<sup>139</sup> This again suggests that if consumers are aware of the availability of certified sustainable timber, the demand for such products will increase (which would allow the FSC to expand its efforts). Furthermore, it suggests that the FSC needs to actively promote why it is different from other forest certification bodies (such as industry-certified bodies).

The Council has undertaken some advertising and consumer outreach work in Europe. In the Netherlands, advertisements on television and in print inform customers that "with FSC timber you save more than the forest." Following on from these information campaigns in 2004, 63% of the Dutch consumers recognised the FSC label (up from 12% in 2001).<sup>140</sup> This suggests that a large component of future FSC action should be targeting consumers' awareness and understanding of the label. Research that compares the FSC's certification with fair trade initiatives suggests that:

"FSC could learn from Fair Trade how to create end-user demand and develop marketing channels for a Fair Trade approach to community-produced forest products. It could learn from

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<sup>137</sup> Ibid,674.

<sup>138</sup> Ibid, 676.

<sup>139</sup> Leigh Taylor, above n 54, 142.

<sup>140</sup> Klooster, above n15, 413.

Fair Trade how to establish more direct, personalised ties between producers and end consumers.”<sup>141</sup>

The barriers discussed within this section are inter-related. The lack of price premiums for certified timber producers currently acts a barrier preventing wider participation by forest managers with the scheme. The lack of consumer knowledge about and understanding of forest certification schemes also means that there is little demand by consumers for certified timber products. Furthermore, even when certified timber products are available, this same lack of consumer understanding and knowledge means that consumers are not aware that a sustainably sourced item is available alongside items from non-certified sources. Therefore, the FSC needs to increase the incentives for participants within certification schemes, lower fees and increase the access the ‘green’ markets by more effectively engaging with timber consumers.

### ***C. Evolutions in future forest certification regulatory regimes***

In addition to expanding the existing area under forest stewardship council certification, there are a number of other amendments that could be made to existing practices for the organisation to evolve: introducing a fair-trade requirement as part of certification processes; expanding certification into non-timber forest products; and creating capacity within the FSC processes to measure and monitor carbon stored in forests. It is frequently noted in literature concerning the Council that it does not ensure that fair rates and wages are paid to timber harvesters.<sup>142</sup> A fair-trade component would ensure that timber workers obtain this wage. Potentially, it could be used to expand coverage in developing countries (because a fair-wage requirement would act as an incentive for further involvement with this wage likely to be higher than existing wages). Linked to the issue of fair trade is the generation of a market for community forest products. Timber is seen as the most important commercial community forest product and, as such, could be seen as an asset to be used to escape poverty.<sup>143</sup>

There has also been some research assessing the potential of a certification mechanism for non-timber forest products.<sup>144</sup> The report found that certification would be a variable stagey for charismatic forest products with high profiles (such as brazil nuts, chicle, palm heart and rattan, and widely sold medicinal [cat’s claws, yohimbe]). It is currently possible to get FSC certification for both timber and non-timber forest products; however, the costs of doing so

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<sup>141</sup> Leigh Taylor, above n54, 143.

<sup>142</sup> For example see Ibid.

<sup>143</sup> Duncan Macqueen, (ed), *Distinguishing community forest products in the market: Industrial demand for a mechanism that brings together forest certification and fair trade*, (2008).

<sup>144</sup> Shanley et al, above n1.

are, currently, prohibitive.<sup>145</sup> The FSC should also build capacity to measure and monitor carbon stored in forests. This will provide the Council with a clear strategic advantage, as it would be able to offer its clients an eco-label and potential income during the growth period of the forest from forest carbon markets. Carbon storage accounting and management practices should be compatible with the international climate change regime requirements.

## 6. Conclusion

Forest certification schemes are a promising development in international forest policy and standards. Such schemes are able to complement a range of national-level forest management activities and might, in some cases, lead to increased enforcement of sustainable standards, improved land planning and use, expanded protected-area networks, and agricultural policy reforms.<sup>146</sup> There are three ways to view certification processes:<sup>147</sup>

- Market-based mechanism – a mechanism for changing consumer buying patterns
- Learning mechanism – a mechanism for educating the public about sustainable harvesting practices
- Assurance mechanism – a mechanism for verifying that timber products are from sustainably managed and harvested stocks.

All three roles listed above are crucial in changing the way in which society views, consumes and manages forests. For such change to take place as a result of forest certification schemes, the percentage of certified timber sold on the international timber market must significantly increase. To increase the percentage of certified timber, a number of barriers must be overcome. These include changing the cost structure of forest certification so that the consumer and not the producer bear the cost of implementing sustainable practices. This will provide an incentive for those in the timber industry to comply with sustainable standards. Just as important is the need to improve society's understanding of sustainable timber and eco-labelling processes. Such initiatives should aim to increase the demand for certified timber. Increasing the demand for certified timber, and improving the incentives currently offered by the regime, are essential for ensuring that forest certification bodies maintain a role in the development of international forest policy and standards.

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<sup>145</sup> Ibid, 11.

<sup>146</sup> Ebeling and Yasue, above n120, 1152.

<sup>147</sup> Christine Overdevest and Mark Rickenbacj, 'Forest certification and institutional governance: An empirical study of forest stewardship council certificate holders in the United States', (2006), 9, *Forest Policy and Economics*, 93

# PART FIVE: CONCLUSIONS

## CHAPTER TEN: Evaluation and Recommendations

### 1. Overview of the Approach to Research

This thesis started its analysis in Part Two with an overview of the concepts, doctrines, principles and rules which underpin forest regulation. The key thematic concepts were identified as: the application of the rule of law; the concept of environmental justice; the rights and restrictions associated with sovereignty rights at the international level; the rights and restrictions associated with property rights at the domestic level; and consideration of forest governance arrangements. This thesis contends that these concepts should and do influence the development of international forestry regulation.

The following components of the thesis examined individual international institutions responsible for shaping and contributing to global forest policy. Part Three examined the role of public international institutions – defined as those bodies operating under the United Nations’ umbrella. The institutions examined were the United Nations Forum on Forestry, the International Climate Change Regime and the World Bank. Part Four focused on the role of international, non-state governance arrangements. ‘Non-state’ was defined to mean institutions that are neither strictly public international institutions, nor private international institutions. The common characteristics of non-state regulation involved being industry driven, using market-based instruments, and being voluntary in nature and transnational in character. The institutions examined in Part Four involved analysis of forestry certification schemes (focusing on the operations of the Forest Stewardship Council) and the operation of forest market regulation. The following analysis will examine the themes of forest regulation and its impact or influence on public international regulatory approaches and non-state regulatory approaches.

#### **A. Rule of law**

Chapter Two outlined the rule of law requirements as:<sup>1</sup>

- A set of legally binding rules that are known in advance
- Rules enforced in practice

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<sup>1</sup> International Development Legal Organisation, *How does IDLO define the Rule of Law*, International Development Law Organization, viewed 28 January 2010 at <http://www.idlo.int/English/External/IPXfaq.aspx>

- Mechanisms to ensure proper application of the rules by well-functioning institutions and mechanisms to allow for departure from the rules, as needed, according to established procedures
- Conflicts in the application of these rules being resolved through binding decisions of an independent judicial or arbitral body
- Having known procedures for amending these rules when they no longer serve their purpose.

Chapter Two explored these requirements in relation to global forest governance and its compatibility with the rule of law. It was found that global forest governance arrangements did not reflect the above requirements. It is now worth considering whether these requirements are met by public international and non-state international institutions. Broadly speaking, it could be surmised that compliance with rule-of-law requirements is observed more in non-state institutions than in public international institutions. Public international institutions do not have any legally binding forest rules, and compliance with, or practice of, existing standards is weak. Furthermore, the procedure for changing existing rules occurs through the process of negotiation. While this process is well established, it has failed to amend rules that are not achieving their desired objectives.

Non-state regulation appears to be more successful in complying with the rule of law requirements listed above. It creates legally binding obligations that must be complied with to receive the incentive provided by the institution. The processes for amending rules are simplified, because the body is able to amend its policy according to its own internal requirements without approval from all participants within the scheme. Conflicts are also easier to resolve, as they would usually involve two parties (the applicant and the regulatory body) as opposed to any number of parties that might be present in public international institutional disputes. This is not to suggest that non-state regulation is at all times compliant with the rule of law. However, at least within current international forest regulation, it appears that non-state regulation is better than public international regulation at complying with the rule of law requirements created by the International Development Legal Organisation.

### ***B. Environmental justice***

One of the major findings of this thesis is that environmental justice theory should be incorporated into international forest policy. Environmental justice can be considered from distributional, recognition, and participation perspectives. ‘Distributional’ analysis examines the allocation of forest resources and forest responsibilities; ‘recognition’ requires the conditions leading to the inequitable distribution are to be taken into consideration; and ‘participation’ requires that all relevant parties are given an opportunity to participate and

contribute. Recommendations for improving the distributional and recognition components of environmental justice are discussed later in this chapter. This discussion will focus on the participation perspective in public and non-state forest institutions. Participation opportunities are more widely available in public international forest institutions. This is because participation is not based upon a capacity to implement or comply, but is, instead, premised upon all relevant stakeholders being given the opportunity to contribute. Conversely, participation with non-state institutions is dependent upon capacity to comply with the obligations of the institution. In many instances (as discussed in more detail in Part Four), there are a number of barriers preventing wider participation, ranging from economic, property, and governance-capacity issues.

### ***C. Rights and restrictions of sovereignty***

The rights associated with state sovereignty clearly impact upon international forest regulation. This is particularly so in the case of public international forest institutions. The rights associated with sovereignty are constantly used to prevent the creation of any legally binding international commitments concerning forest use and management. Restrictions concerning state sovereignty should and could be framed to require that harm caused by unsustainable timber practices in one country impact the global interest in preventing climate change. The concept of sovereignty requires that actions of an individual state do not cause harm beyond the state border and, as such, unsustainable timber practices resulting in increased greenhouse gas emissions may be a basis for the introduction of legally binding international forest standards. The rights and restrictions associated with state sovereignty do not significantly influence non-state regulation processes. This is because these processes are voluntary in nature. In essence, states give up certain sovereign rights when they participate within these schemes.

### ***D. Rights and restrictions associated with property***

Rights and restrictions associated with property are of more relevance to non-state regulatory approaches. This is because non-state regulation in its implementation deals with existing and new interests in forest property. Forest market mechanisms require the creation of property-based interests in forest values or services as a precursor to allowing trade in the product. In this regard, domestic landholder's interests in forest areas are more directly influenced by the operation of such schemes. Public international forest regulation has the potential to impact significantly upon domestic forest landholders' interests. This would occur through the imposition of domestic legislation reflecting international requirements. The concept of



sustainable forest management would operate to limit forest landholders rights and responsibilities. Such an approach is yet to occur in any significant sense.

#### ***E. Governance arrangements***

The governance arrangements of public and non-state regulation are quite different in character. The nature of public international law requires that policy be generated as a result of negotiation. This influences the governance arrangements concerning the administration and processes of the institution. While this has the advantage of providing more equal opportunity for all forest stakeholders, compliance and implementation of policy created by such institutions in the forestry sectors has been weak. Governance arrangements within non-state bodies are generally simplified, as the institution sets its own policy standards and then approves membership based on compliance with its standards. In general, this produces high compliance levels with these standards compared with public international forest policy. Its shortcoming is the lack of participation available to all relevant forest stakeholders.

#### ***F. Summary***

It appears that public and non-state institutions have different strengths and challenges in complying with and implementing the themes of forest regulation identified by this thesis. In terms of meeting the rule of law requirements as defined by the International Development Legal Organisation, non-state forest regulatory processes meet more of the requirements compared with those of public institutions. But public forest institutions provide more inclusive operating modalities in the context of environmental justice from a participatory perspective. This is because they incorporate all perspectives in the negotiating process, and membership is not based upon capacity to comply with and implement forest management standards.

The concept of state sovereignty has a much larger impact upon public international forest institutions as compared with other public international institutions. This is because the concept of sovereignty in the forestry context has been interpreted to restrict the application of international law dealing with state interests in natural resources. The rights and responsibilities associated with property based interests at this stage are of more relevance to regulation by non-state bodies as the rules of these bodies restrict the manner in which forest areas may be used. The governance arrangements underpinning public regulation and non-state regulation are quite different in nature. The nature of public international law makes the negotiation, implementation and administrative processes more complex, while the governance arrangements for non-state regulation involve less time spent on negotiation,

rules and processes. It should be noted that such processes involve complex methodologies and are only responsible for regulating a small percentage of the global forest estate.

## 2. Research Questions

To examine the international legal obligations associated with the concept of sustainable forest management, the following research questions have been posed:

1. Who are the main international institutions involved in international regulation of forestry?
2. What international forest instruments are considered to be milestones in the development of international forestry law?
3. What are the major challenges of international forest regulation?
4. Are international forest institutions and instruments effective?
5. How can international forest regulation and domestic forest policy be improved?

## 3. Main International Forest Institutions

The main international institution involved in the regulation of sustainable forest management is the United Nations Forum on Forestry. This body is charged with “promoting the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end”.<sup>2</sup> As discussed in Chapter Five, the work of the United Nations Forum on Forestry has been somewhat underwhelming to date. The body has not succeeded in harnessing a global commitment to improve forest management. Nor has it seriously attempted to coordinate the abundance of global forest initiatives. As a result, there is no global authority coordinating international forest initiatives. This deficiency has been recognised by the World Bank.<sup>3</sup>

There is trend within international forest initiatives to focus upon a particular forest issue. This is understandable given the broad range of crosscutting issues that forestry regulation involves. Such an approach, however, results in a number of institutions creating individual international standards for sustainable forest management. This thesis has examined the operations of five institutions creating international forest policy. Suggestions for reform of these institutions are detailed below.

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<sup>2</sup> United Nations Forum on Forestry, *About UNFF*, (2008), <http://www.un.org/esa/forests/> 7 February 2010.

<sup>3</sup> See Chapter seven which discusses the creation of a Global Forest Partnership – an international body proposed by the World Bank to reform global forest governance arrangements.

### ***A. Recommendation for reform of the United Nations Forum on Forests***

The United Nations Forum on Forests (UNFF) has failed to lift the international profile of forests or generate concerted international cooperation in resolving forest issues. Domestic governments have, in turn, decided to deal with forest related issues in an *ad hoc* manner, addressing forest regulation from either political- or economic-related pressures. Fundamentally, the international forest regime lacks strategic direction and authority.

The UNFF was created to regulate about all forest values. This includes productive forest values, protective forest values, and social, cultural, economic and ecological forest values. To regulate all forest values, a system delineating the relationship among forest values must be created. In certain instances this would result in one forest value gaining precedence over another connected with the area. The UNFF has not explored the creation of such a methodology (e.g. the creation of an international forest management methodology that specifies the creation of productive forest estates managed according to certain criteria, or the creation of protective forest estates managed to meet other specified criteria).

The UNFF has avoided formulating specific international forestry obligations; instead, it has created documents that merely recognise the existence of competing values and interests in forest areas.<sup>4</sup> This type of instrument provides no guidance for domestic governments on resolving disputes arising from the existence of competing forest values within a single forest area. For the UNFF to contribute to international forest norm and rule-making processes, it should aim to create instruments recognising all forest values. This would examine the relationships between these values and establish methods for determining the most appropriate forest value to be recognised in the circumstances.

As proposed in Chapter Three, the nature of the UNFF needs to evolve for the body to gain political legitimacy, and reform of the institution is desired by many sectors of society – and this is most likely required to attract future United Nations operational funding. The forum should be reformed to perform one of the roles described below:

- The institution recognises its inability to create binding legal commitments and forest targets. Instead, the forum focuses on acting as a coordinator for global international and intergovernmental programs on forests. Within this new role, the institution focuses on aligning the research priorities of major global forest initiatives and implementing a streamlined single reporting framework that can

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<sup>4</sup> For example see Principle 2(c) of the *Non-Legally Binding Forest Principles 2007*, which requires: “Major groups as identified in Agenda 21, local communities, forest owners and other relevant stakeholder contribute to achieving sustainable forest management and should be involved in a transparent and participatory way in forest decision-making processes that affect them, as well as implementing sustainable forest management, in accordance with national legislation”.

be used to meet most international reporting requirements. In this coordination role, the body would identify thematic areas of regulation and focus on connecting relevant stakeholders with the forest governing body most useful to them.

- The institution wins back the respect of its members and stakeholders by taking a strict approach and creating a specific program of work with binding commitments and binding targets. This action would be controversial, and it likely that a number of parties would withdraw from this type of process. The withdrawal of these members would allow the program to move forward and develop – and these parties might then be induced back into the regime at a later date by market and non-market incentives. The forum could follow the lead of the climate change regime by creating binding commitments for developed countries in its first commitment period, with a view to increasing capacity within developing countries so that future commitment periods create obligations for these parties.

The second proposed option aligns with the earlier suggestion of creating clear methodologies that outline the obligations for managing productive and protective forest estates. Domestic environmental policy is shaped and influenced by international environmental standards. The lack of a clear and authoritative international forest institution means that domestic forest regulation is influenced by a number of international forest standards. None of these standards, however, addresses all forest issues and, as a result, domestic forest regulation fails to recognise and regulate competing forest values within an area. The fate of domestic forest regulation depends on the emergence of clear international forest methodologies, combined with political and financial support to assist in the implementation of them.

### ***B. Recommendations for reform of forest regulation under international climate regime***

Forests are regulated under the international climate change regime for both their sink and source qualities. Forest activities that produce greenhouse gas emissions include: forest harvesting, land clearing, illegal or legal deforestation, forest fires, and forest management practices (e.g. use of fertilisers). These are activities that are sources of greenhouse gas emissions. Other forest activities such as reforestation, afforestation, forest protection, and forests management (e.g. the adoption of land-use practices that reduce emissions) are activities that can act as sinks of greenhouse gas emissions.

The biggest hurdle for forestry projects within the climate change regime relates to the non-permanent sequestration of carbon in forest projects and leakage related considerations. The storage of carbon within forests is a forest value, but the practicalities of legal recognition and protection for this particular forest value have proven complex. Permanence concerns arise

about the uncertainty of the duration for which forests are able to store carbon. Leakage is a concept used to refer to situations where improved forest practices in one region are offset by unsustainable forest practices transferred to another region. Permanence and leakage concerns have contributed to increasingly complicated accounting methodologies, which are less attractive to the participants within the carbon markets.<sup>5</sup> Reform of international climate change forestry guidelines is required to make accounting processes and methodologies easier to use and observe. This will, in turn, increase the use of such instruments, resulting in better forest management and use.

The international climate change regime has a stronger political platform than the international forest regime. Given this, it is suggested that reforms made in relation to forest use and management under the climate change regime are likely to achieve more than reforms made by the international forest regime. If the climate change regime were to introduce new obligations for forest use and management, this could improve the condition of the world's forest estate. For example, a binding obligation could be introduced that requires parties to increase their forest cover by a certain percentage over time. Failure to comply with this new obligation might lead to an economic sanction. A similar obligation could require parties to increase the percentage of protected forest areas over a particular time span – and failure to comply might also attract an economic sanction. The trouble with this suggestion is that parties would want to use these activities in their accounting practices and, again, this would raise permanence and leakage issues.

### ***C. Review of the World Bank's forest regulation***

The World Bank's forest policy has two major themes: firstly, decreasing poverty and improving forest conditions for forest dwellers; secondly, expanding the operation of forest certification schemes to promote the broader implementation of sustainable forest management principles. The World Bank has a strategic interest in forest partnerships, and participation in them ensures greater integration and consistency in forest policy between the World Bank and partner institutions. The World Bank has demonstrated that a more integrated approach to global forest regulation is needed because of the formation of its strategic partnerships. It has, therefore, started investigating the possibility of creating a 'global forest partnership'. Something like this is urgently needed to improve the integration and implementation of international forest policy.

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<sup>5</sup> For a discussion on investment in land use, land-use change, and forestry projects, see: B Bosquet, 'Specific Features of Land-Use, Land-Use Change and Forestry Transactions', in D Freestone and C Streck, (eds), *Legal Aspects of Implementing the Kyoto Mechanisms: Making Kyoto Work*, (2005), 282-283.

A review of the World Bank's Forest Strategies identifies a number of avenues for improvement in the implementation of its policies. In addition to the report's recommendations, it must be stated that the operation of forest policies appears to be a complicated matrix for those outside of the Bank trying to understand the Bank's approach. As an outsider, it was very difficult to piece together the Bank's forest regulatory framework at times. More specifically, the review of the World Bank Forest Strategy suggests four avenues to incorporate the forest strategy more meaningfully.

- Mainstreaming the forest strategy into key Bank instruments: poverty reduction strategies; country assistance strategies; development policy loans; and broader investment projects.
- Using the forest strategy to promote investment lending in forest projects.
- Enhancing the role of partnerships and linkages to implement the forest strategy.
- Building due diligence to ensure that the Bank's key operational policies trigger the application of the forest strategy and identify avenues for improvement in the operation of the forest strategy.

The World Bank has decided to form strategic partnerships to deliver better global forest outcomes, as institutions acting independently have failed to deliver significant changes in the global regulation and management of forest resources. Working collaboratively allows institutions to pool resources and expertise, which should lead to improved outcomes. The World Bank has recognised the complex matrix of issues associated with forest regulation, and has formed strategic partnerships with three groups to improve its chances of implementing its forest policy:<sup>6</sup> one with an international NGO (the *World Wide Fund for Nature*); one with an intergovernmental institution (the *Forest Law Enforcement and Governance and Trade Scheme*); and one with a global analytical facility (the *Program on Forests*). These partnerships are analysed in Chapter Five. Participation with forest partnerships has produced five benefits:

1. The use of a target-driven approach increases the accountability and transparency of the operation.
2. The partnership opened the doors of communication among a range of international institutional forest bodies and allowed for a pooling of resources and expertise.
3. The partnerships provided number of valuable lessons that can inform future forest policy and practice.
4. In a number of instances, these partnerships led to highly successful individual projects that could evolve and develop, even after the initial partnership period ended.

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<sup>6</sup> World Bank, *A guide to the World Bank*, 2nd ed, 2007, 84.

5. Success experienced within the partnerships led to the renewal of certain partnerships and, in some instances, of the adoption of a target-driven regulatory approach.

The World Bank has started the international dialogue about the need for a global body for forest regulation. The nature, form and role of this body is up for negotiation. It appears that the World Bank is willing to provide the negotiating platform and, from this, it could be assumed that the Bank will provide a degree of administrative and technical capacity assistance. The World Bank should be encouraged to lead the creation of this partnership, as it has the potential to deliver something missing from existing forest programs – that is, a system, which brings together closely linked initiatives and creates partnerships between overlapping programs. Such integration might just be the catalyst required to achieve progress in the implementation of sustainable forest management.

#### ***D. Reform of forest markets***

There are two key issues to be addressed before the use of forest market mechanisms expands. Firstly, a demand for forest ecosystem services needs to be created. Market mechanisms work on the basis that the value asset being traded is desired by society. For market mechanisms to play a larger role in forest regulation, the demand for such forest services must be significantly increased. Secondly, there are still a number of methodological issues left to be resolved in the forest trading context. There are a number of barriers to the expansion of forest market mechanisms, such as land tenure considerations, additionality, permanence, leakage, and double-counting concerns. The complexity of forest ecosystems is now matched by the complexity of the system designed to regulate trade in forest products. The systems and processes need to be integrated and streamlined to be more practical and straightforward while maintaining environmental integrity.

Demand and a willingness to pay for forest services can arise in two instances: under private voluntary investment; and as a result of government intervention. Private voluntary investment is usually made on the premise that the item or service is of economic worth, and that this worth will not decrease in value. There is some evidence of voluntary investment in reforestation and afforestation initiatives.<sup>7</sup> It is likely that the implementation of a Reduced Emissions from Deforestation and Degradation instrument under the climate change regime will result in an increase of voluntary investments in forest areas. The second method of generating demand is through regulatory intervention. This approach increases the demand for forest ecosystem services by regulating and prescribing quantities and qualities for certain

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<sup>7</sup> See generally: Elizabeth Harris, *The voluntary carbon offsets market: An analysis of market characteristics and opportunities for sustainable development*, International Institute for Sustainable Development, (2007).

forest values. Regulatory intervention is usually performed by a public-like institution (for example, the grant of a building permission being dependent on offsetting any impacts on the forest arising from the development).

To implement forest market mechanisms, property rights to the forest land need to be clear and enforceable. Rights to the forest land itself, and rights to particular forest products (e.g. biodiversity or carbon), may also need to be created alongside a system allowing for the enforcement of these rights. Additionality, permanence, leakage and double-counting concerns are worthy of further consideration. However, solutions to the concerns surrounding these issues must remain clear and straightforward for forest trading schemes to be practicable. The increasing complexity associated with creating new interests in the environment, consistently regulating and controlling the use of these interests with existing ones, and the stringent monitoring, verification and other requirements created by regimes is not only mind-boggling, but exceptionally time-consuming and laborious.<sup>8</sup> Following such processes and meeting the requirements of such regimes are often at the forefront of participants' minds. Likewise, the regulatory bodies and their employees now specialise in identifying flaws with current policy design, as opposed to actually changing society's relationship with the environment. This draws attention away from the fundamental purpose of the scheme (which is likely to be the prevention of further degradation of an identified ecosystem service). Attention must be refocused to create clear rules and processes aimed at achieving the best possible forest outcomes.

### ***E. Reform of forest certification schemes***

Forest certification schemes, where implemented appropriately, are an example of an advanced forest management methodology that recognises and promotes all forest values. The biggest hurdle for forest certification schemes is the challenge of expanding their operations to those regions most in need of sustainable forest management reform. Expanding their operation will also mean that certified forest products gain greater market power and, as such, may start to drive further consumer demand for them. A demand for these products will increase with education campaigns that focus on improving consumer awareness of forest certification.

The Forest Stewardship Council (FSC) is deservedly proud of securing 5% of the world's productive forest estate under their regime. This accomplishment is significant in light of the international and national forestry related political, economic, social and environmental issues

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<sup>8</sup> The efficiency, flexibility and accompanying complexity of international emissions trading market is persuasive on this front. See, for example, the plethora of legal analysis of existing arrangements in the journal *Carbon and Climate Law Review*.



that have plagued progress in other international forestry regimes. No other international forest institution can publish figures demonstrating their impact on the ground to be above the 5% global level achieved by the FSC. While 5% is significant, there is clearly a need for greater expansion of areas under forest stewardship council certification. Significant progress is needed before these schemes operate over the majority of the world's productive forest estate.

Barriers that prevent the wider implementation of forest certification schemes include:

- Fostering consumer demand and a willingness to pay a price premium for certified timber products.
- Improving consumer understanding of forest certification logos and processes.
- Increasing incentives for those bodies that comply with certification standards.
- Making forest certification more accessible for small-scale forest producers.
- Significantly increasing the capacity of tropical forest countries to participate in certification processes.
- Reforming certification guidelines to include fair-trade conditions (this will allow certification schemes to leverage support from fair-trade institutions).

There is need for this form of a non-state, market-driven governance regime to expand in countries where compliance with sustainable timber practices is weak or non-existent. This governance needs to fill the gaps in forest regulation in these regions as domestic regulatory approaches indicate a lack of capacity, or an unwillingness, to implement sustainable timber practices. Non-state, market-driven regulation stands more chance of being implemented in these regions if there are appropriate incentives and support at the government and community level. The incentives offered by forest certification must increase so that timber-producer countries see value in participating forest certification initiatives. Possible incentives include: increased market access; potential price premiums for sustainably harvested timber (something that forest certification schemes have been unable to offer their participants to date); or improved community engagement and control over forest estates.

#### **4. Milestone Forest Instruments**

The United Nations Forum on Forestry (UNFF) has created two sets of non-legally binding forest principles, and these are considered to be milestones in the development of international forestry. This is despite the weak implementation and application of the principles.<sup>9</sup> Both the 1992 and 2007 principles represent a global consensus on issues

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<sup>9</sup> David Humphreys, *Logjam: Deforestation and the Crisis of Global Governance*, (2006).

surrounding forest management and use. The principles outlined by these instruments are sufficient; however, it is the limited implementation and application of them that reduces their value. The major outcome from these instruments has been the creation of National Forest Policy instruments in the majority of UNFF member countries. National forest policies, however, vary significantly from country to country and, as such, there is limited consistency and limited incorporation of these instruments.

The criteria and indicator processes produced instruments specifying the requirements of sustainable forest management, and these have been very influential in shaping domestic forestry regimes. Nearly all countries are members of a criteria and indicator process and have adopted the outcomes of these processes as the official means to measure sustainable forest management capacity at the domestic level. This, therefore, creates some consistency among nations in defining sustainable forest management at the national level. These processes, however, do not specify that certain standards be met; rather they serve as definitional tools only.

The Reduced Emissions from Deforestation and Degradation (REDD) instrument, currently under development in the climate change regime, has the potential to fundamentally change forest management in developing countries. This is because it is the first international forest instrument that promises to deliver money and capacity building to protect forest estates. The REDD proposal will see developed countries pay developing countries to protect their forest estate. Payment will depend on these countries meeting specified criteria. The guidelines and requirements for a REDD instrument are currently under development (discussed in more detail in Chapter Four).

## **5. Major Challenges of International Forest Regulation**

### ***A. Negotiation***

Negotiation of international forest instruments is challenging, as the process is very political. There are no-legally binding international forest obligations. The negotiation process required to create such obligations has proved that forest issues remain too contentious for states to submit to legally binding obligations. State sovereignty, capacity building, and technology transfer are the main contentious issues. The two sets of non-legally binding forest principles of 1992 and 2007 were created only after lengthy and heated negotiating sessions. For the principles to be acceptable to all state parties, the wording of the *Forest Principles* was watered down to obtain consensus. More advanced management methodologies need to be developed to provide guidance on how forest areas can be managed to meet a number of

forest values. Additionally, sustainable forest management criteria and concepts need to be more meaningfully incorporated within domestic regulatory frameworks.

### ***B. Implementation and compliance***

Implementation of, and compliance with, international forest instruments is another big challenge for international forest regulation. The lack of implementation and compliance can be explained as the result of two circumstances. Firstly, the lack of legally binding international forest obligations means that there is confusion as to which law should be applied. Furthermore, this uncertainty means that there are limited incentives for countries to comply with such law. Secondly, within the developing country context, capacity-building initiatives are required to improve governance and regulatory processes. Until capacity-building, technology and finance transfer instruments are created within the international forest regime, there remains little chance of sustainable forest management principles being widely practised and implemented. The challenges associated with the broader implementation of sustainable forest management principles and practices include: lack of common global goals; lack of political support and commitment by national governments to the concept; and lack of international finance and other assistance to implement the concept.

### ***C. Proposed global forest objectives***

The two principal objectives of international forest regulation should be to dramatically reduce global deforestation rates<sup>10</sup> and to implement broadly sustainable management principles and practices. The challenges associated with reducing deforestation include a lack of forest data and forest monitoring abilities, together with a lack of resources to curb unsustainable forest practices. Generic drivers of deforestation include logging, energy development, mining, new infrastructure development, land clearing for agricultural purposes, excessive vegetation removal, and species extinction; these change the ecological make-up of the forest area.<sup>11</sup> Another driver of deforestation is illegal logging, which is more likely to take place when rule-of-law procedures and practices are lacking. As discussed, the rule of law requires open, transparent and accountable practices, and the equal application of the law upon all (no one individual is above the law).

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<sup>10</sup> About 13 million hectares of forest are lost every year. In total, the world has about 4 billion hectares of forests, which covers about 30% of the world's land area. Food and Agricultural Organisation, *State of the World's Forests*, 2009, Forestry Division of the Food and Agricultural Organization of the United Nations, (2009).

<sup>11</sup> Dirk Byrant, Daniel Nielsen and Laura Tangle, *The Last Frontier Forests: Ecosystem and Economies on the Edge*, World Resources Institute, (World Conservation Monitoring Centre and The World Wildlife Fund), (1997).

## 6. Effectiveness of the International Forest Regime

The international forest regime is not operating effectively.<sup>12</sup> This is demonstrated by applying the criteria for assessing effectiveness developed in Chapter Four:

- The existence of clear global forest objectives, with a preference for target-measured goals.
- Evidence of good global forest governance arrangements (integrated, practical and accountable, and equitable).
- Evidence of implementation of the concept (definitional processes, reporting upon progress made, and future progress needed).
- Improvement in forest conditions – a tangible improvement in the quality and quantity of forest ecosystem services.

### A. Clear forest objectives

The United Nations Forum on Forestry has created four global forest goals:

- Reverse the loss of forest cover worldwide through sustainable forest management – including protection, restoration, afforestation and reforestation, and increased efforts to prevent forest degradation.
- Enhance forest-based economic, social and environmental benefits (including improving the livelihoods of forest dependent people).
- Significantly increase the area of protected and sustainably managed forests worldwide (including the proportion of forest products from sustainably managed forests).
- Reverse the decline in official development assistance for sustainable forest management and mobilise new and additional financial resources for the implementation of sustainable forest management.<sup>13</sup>

The development of these global goals is a positive development for international forestry law, because they create a focus for international forest policy – deforestation, promotion of economic and social forest values, protection forest areas, and forest finance. For these goals to become meaningful the following suggestions are made:

1. The goals should be required to be target-orientated. For example, goal one could involve quantifying the rate of forest loss to be achieved within a specified period. This would require identifying the existing rate of forest loss, and then require a reduction in that rate. This would then bind the institution to measure current rates of deforestation and report in the future upon progress made

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<sup>12</sup> This is widely acknowledged within existing literature on the international forest regime. Humphreys above n 8.

<sup>13</sup> *Non-legally binding instrument on all types of forests*, Economic and Social Council, Seventh Session, 2007, E/2007/42, e/cn.18/2007/8.

towards reducing these levels. This would require countries to report upon levels of deforestation and policies undertaken to prevent it. The goal as it currently stands is not specific enough to require any action or follow up action on rates of deforestation.

2. These goals need to be incorporated across all global forest institutions. Presently, each international forest institution has a number of objectives, many of which would align with the four global goals above. International forest policy would be better integrated if all institutions dealing in forest policy identifying common goals.
3. The political authority and support attributed to the UNFF is weak compared with other international environmental institutions (e.g. the climate change regime). Therefore, the status and significance of these goals may be questioned, especially in light of the non-legally binding status of the instrument from which they are derived.

It is recommended that relevant international forest institutions meet to negotiate a number of goals using the existing ones as the starting point. Each institution should ensure that their forest objectives are compatible with the global ones, and that these become target driven. As outlined, this would assist in measuring and reporting the progress made towards achieving the goals. In addition to specifying a number of global goals, a common definition of sustainable forest management should also be created using the definition from criteria and indicator processes as the basis for negotiations.

### ***B. Good governance considerations***

As already suggested, extreme fragmentation of the regime has led to duplication, overlapping, and confusion about the global goals for forest use and management. It is a difficult task to identify all the international bodies involved in forest regulation, let alone piecing together their forest policy direction and relationships with other institutions and processes. In addition, the authority of the principle United Nations body responsible for forest policy has been questioned.<sup>14</sup> In combination with this extreme fragmentation of global forest governance arrangements, there is evidence of policy and implementation failure, which also undermines the effectiveness of the regime.

International forest policy is not clear, consistent or practical. This thesis has attempted to examine some of the international forest institutions and instruments and, during this process, it has been found that policies are often convoluted, unnecessarily complex, and often fail to explain how the policy is to be implemented (taking in to consideration budgetary and capacity issues). Policy fails when it does not achieve its stated purpose – and if this definition were

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<sup>14</sup> Humphreys above n 8.

strictly applied to the forest policy examined within this thesis, every single international forest policy would be a failure. Alternatively, it could be argued that it is not the fault of the forest policy itself, but its lack of implementation that is the problem. It is suggested, however, that designing forest policy with unrealistic expectations, and without specifying the mechanisms necessary for its implementation, is a failure of policy design.

The current global forest regime cannot be considered equitable. As suggested throughout this thesis, the concept of environmental justice should be incorporated into the global forest regime. This would ensure that those with capacity – and, arguably, the responsibility to act – are given significant obligations and are required to assist those countries unable to act. The design of the Reduced Emissions from Deforestation and Degradation (REDD) instrument is the first global instrument to embrace the ideas behind environmental justice in the forest context.

### ***C. Evidence of implementation***

Implementation of international forest law is hindered by the regime's inability to seriously address longstanding issues that have plagued the regime since its inception. The inherent political issues associated with forests can be reduced to money and capacity. Forest products make significant contributions to many national economies. International policies that detrimentally affect national financial interests are, naturally, going to be controversial unless they offer some incentive for compliance. The forest regime needs to develop forest policy that provides dual incentives (for example, improved forest outcomes and improved livelihood outcomes – such as the forest policy designed by the World Bank forestry department). International forest policy also needs to work towards creating policy that actually aims to improve capacity within countries to implement sustainable forest management. In designing this type of policy, developed countries will need to undertake obligations to positively assist in such activities.

In terms of definitional processes and reporting on the implementation of forest objectives and outcomes, some positive developments have taken place. The definition and requirements of sustainable forest management (SFM) were established by criteria and indicator processes, which provide a definition of SFM and establish thematic areas for states to measure progress towards SFM. The function of reporting and the submission of reports are voluntary in nature and self-assessed. Presently, there are a number of non-legally binding international forest reporting commitments, and these vary in nature; compliance with all reporting commitments would be an onerous task for governments. The Collaborative Partnership on Forestry, a body formed under the United Nations, has been developing a streamlined approach for

international forest reporting. The work by this body should inform future developments of definitional and reporting requirements.

#### ***D. Improvement in forest conditions***

The 2007 state of the World's Forests Report compiled by the Food and Agricultural Organisation<sup>15</sup> provides a number of relevant statistics concerning the improvement of forest conditions. Statics of relevance include:<sup>16</sup>

- Over the 15 years from 1990 to 2005, the world lost 3% of its total forest areas.
- From 1990 till 2005, forests under conservation status increased by 32% – this is an increase of 96 million hectares of conservation forest estates.
- 6 million hectares of primary<sup>17</sup> forest are lost or modified each year.
- The area of productive forest plantations increased by 2.5 million hectares between 2000 and 2005, indicating that a larger proportion of wood removal may come from forest plantations in the future rather than primary forests.

In summary:

“[A] legal, policy and institutional framework is perhaps the most important factor in setting the stage for sustainable forest management. Positive change is evident in all regions. There are signs of political commitment towards sustainable forest management in the vast majority of countries. In the 15 years since the United Nations Conference on Environment and Development (UNCED), most countries have enacted new, more progressive forest laws and policies. Over 100 countries have established national forest programmes in an attempt to manage forests more holistically.”<sup>18</sup>

This quotation and the statistics above demonstrate that some positive developments have occurred in forest use and management since 1992. However, any praise of progress should be tempered with the reality that it is quite small considering that these improvements spanned 15 years. Issues of concern include the ongoing loss of primary forest, and the anticipated growth for forest products expected in coming years. The 2009 state of the Worlds Forest<sup>19</sup> report predicts a steep increase in the demand for wood products. The demand is the result of increases expected in the consumption of wood products, as well as an increase, particularly in Europe, in the use of renewable energy technologies. This suggests a need for the creation of new plantation forest to meet this anticipated demand for wood products.

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<sup>15</sup> Food and Agricultural Organization of the United Nations, *State of the World's Forest 2007*, Rome, (2007).

<sup>16</sup> Ibid, 68-70.

<sup>17</sup> 'Primary forest' is defined as being forests of native species where there are no clearly visible indications of human activity and ecological processes are not significantly disturbed.

<sup>18</sup> Food and Agricultural Organization of the United Nations, *State of the World's Forest 2007*, Rome, (2007), 70.

<sup>19</sup> Food and Agricultural Organization of the United Nations, *State of the World's Forest 2009*, Rome, (2009).

## **7. Improving International Forest Regulation and Domestic Forest Policy**

### ***A. Global forest governance reform***

International forest regulation needs an authoritative body to plan strategically and to oversee the implementation of international sustainable forest management initiatives. The current global international forestry governance regime needs a body to coordinate and steer the global forest agenda. If such a body existed, it could align similar forest initiatives by providing the dual benefit of removing duplication and overlap while allowing the processes to learn from each other's experiences. This would also lead to improved knowledge transfer among these institutions, leading to improved forest policy that takes into account practical lessons from trial implementation programs.

The United Nations Forum on Forestry (UNFF) is desperately in need of reform. This body has the potential to become the ultimate authority on international forest regulation because it is the one body that focuses on all forest values. As outlined earlier, reform of this institution can take place in two ways. One is to focus on being a coordinator for global international and intergovernmental programs on forests. This is an administrative-driven reform; it would require the UNFF to collate information about relevant forest initiatives, to hold meetings and negotiations with bodies working on similar tasks, and create reports on how each individual forest value is regulated. Such reform would also require strategic planning, which would go some way to improving monitoring, reporting and implementation of sustainable forest management principles and practice.

The UNFF may not be the most appropriate body for such a role, because it may not be able to generate the requisite political support and authority required for such reform. The World Bank has proposed the creation of a Global Forest Partnership and this may, ultimately, be more successful in creating a peak international forest institution due to the Bank's political platform and status. In any event, the UNFF should actively participate in the development and administration of the global forest body. This will go some way to avoiding further overlap duplication in the international forest regime.

A second way would be to reform the Forum to increase its political standing through improving the authority of its standards and rules. A target-driven approach should be adopted so that progress can be measured and reported. Such an approach may not be reached by consensus – however, similar to the development of the Kyoto Protocol, a progressive membership may take place. This means that countries with a strong interest in sustainable forest management sign on to a legally binding document in the hope that other countries will



sign on in the future. For such affirmative action, the political significance of forest issues will need to be raised in many countries.

Regardless of the nature of the reform undertaken (administrative versus legally binding forest commitments), the essence of the reforms should also address the following:

- The adoption of a common concept of sustainable forest management, and a system for defining, implementing, and reporting on the concept. This would involve an expansion of the criteria and indicator approach to defining sustainable forest management.
- The creation of international management standards for protective forest areas. This standard should include information about different forest ecosystems (e.g. boreal, tropical), and should be compatible with the requirements for forest market mechanisms (carbon, biodiversity).
- The creation of international management standards for productive forest areas. This should be aligned with forest certification guidelines as much as possible.
- The development of more advanced forest management methodologies that provide guidance on how forest areas can be managed to meet a number of forest values.
- The development of timber policy to prevent trade in illegally sourced timber.

To address the lack of implementation of the international forest regimes instruments, three barriers must be overcome:

1. Financial support must be provided to developing countries to support their implementation of sustainable forest management principles and practices. This need for increased international financial forest revenue has been recognised by the Forum with reports being prepared that provide suggestions on how to increase revenue for forest management.
2. The capacity of developing countries to implement and enforce sustainable forest management principles and practices must be addressed. For forest programs to be successful, there must be an underlying political structure that is secure, transparent and accountable. In the absence of such a system, the implementation of sustainable forest management will continue to be weak.
3. There needs to be policy integration of forest issues into broader sustainable development and development strategies.

### ***B. Incorporating environmental justice into global forest regulation***

The lack of capacity in developing countries to implement sustainable forest management, coupled with the consumption of forest products by developed countries, should be used as a

basis for incorporating environmental justice considerations into global forest regulation.<sup>20</sup> This requires a re-examination of the relationship between producer and consumer countries of forest products, and a re-examination of the ability of developed countries (and, arguably, their global duty) to assist the implementation of sustainable forest management in developing countries. It is important that the wide range of different political, economic and social conditions present in developing countries be accommodated and recognised by policy initiatives in this area. Presently, there is no global consensus on who, ultimately, should be responsible for implementing sustainable forest management. Existing principles of international environmental law, such as state sovereignty, suggest that sovereign states should be responsible for managing their natural resources.

Environmental justice, like many other environmental concepts, is capable of being defined in a number of ways. Particularly relevant to international forest regulation and justice are considerations linked to distributive justice, and justice as recognition. A distributive justice approach would require the development of:

- two sets of sustainable forest management standards (reflecting the capacity of developed and developing countries to implement them);
- a system of liability (which acknowledges that the consumption of timber in developed countries contributes significantly to unsustainable timber practices in developing countries); and
- a system that shares liability for the implementation of sustainable forest management practices among the global community (reflecting the benefits that the global community obtains as a result of sustainable forest management practices).

Justice as recognition, in the international forestry context, could be used as a basis to argue for:

- consumption patterns of forest products to bear some relation to the liability imposed for the implementation of sustainable forest management practices;
- recognition of the circumstances that have pushed certain forest dwellers into their current position (and the need for a system to assist them with the implementation of sustainable forest management practices); and
- that justice as recognition requires the law to recognise the legitimate claims of indigenous or customary owners of forest areas (leading to tenure and land rights being secured for them).

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<sup>20</sup> In support of this, see: Thomas Greber, et al, *Conservation with Justice: A Rights-based Approach*, IUCN Environmental Law and Policy Paper No 71, International Union for the Conservation of Nature, (2009), Chapter 4.

Incorporating justice-related considerations into international forest regulation would assist in mending the relationship between developed and developed countries, as well as timber producer and consumer countries. Examining justice-related issues goes to the heart of what is contentious within international forest regulation:

- Is it fair and reasonable for some countries to bear a heavier burden in relation to the implementation sustainable forest management?
- How should liability for the implementation of sustainable forest management be calculated?
- Is it fair for stewards of large forest areas to bear global forest responsibilities when they lack the capacity to address forest issues?

### ***C. Domestic forest governance reform***

From the national governance perspective, improvements in the legal regulation of forest resources might be possible by re-examining property and tenure rights, and their relationship to sustainable forest management. This would involve examining the effects of public and private landholding patterns, and the effect of these have on the implementation of sustainable forest management. Further work is needed to identify the gaps in the law concerning property rights and forest rights. These gaps will differ from country to country, but issues in these areas can be generalised into developed country forest property issues, and developing country forest property issues.

Developed countries usually have regulatory frameworks that provide citizens with clearly defined and enforceable tenure rights to land; however, laws still need to be developed so that rights and interest in forest property be precisely defined. This would be of particular importance in the event of market-based regulation becoming a dominant form of environmental regulation. Tenure rights in forest property that require recognition and definition include:

- rights in forest property (such as interests in carbon);
- clarification of forest property rights in leasehold land; and
- the ability of land registries to recognise multiple forest interests in a single allotment.

Developing countries face different challenges in relation to land tenure, as there are issues concerning the implementation of rule-by law forestry practices. In many instances, tenure rights to forest property are not clear, certain, stable or enforceable. Stable tenure rights provide citizens with an incentive to manage and use land to achieve environmental, social and economic benefits –because they provide security to the holder of the rights. Developing

countries require capacity building initiatives aimed at creating and implementing an accountable land tenure regulatory framework. The introduction of such a system would serve as the initial building block of a series of reforms aimed at improving forest management and restricting the use of forest resources in unsustainable processes.

## **8. Concluding Thoughts**

The development of appropriate legal rules and processes is critical for implementing sustainable forest management at both the international and national levels. The development of forest law should take place according to ‘rule-of-law’ criteria. Fuller proposes that the following requirements as essential for rule by law: that the law be sufficiently general, that it be publicly promulgated, prospective, clear and intelligent, free of contradictions, sufficiently constant to enable people to order their relations and not impossible to obey.<sup>21</sup> International and national forestry laws and governance processes must work towards meeting these criteria. The concept of environmental justice supports the arguments advanced in this thesis. Ultimately, it is proposed that those countries with the capacity to implement sustainable forest management, along with those who are high consumers of forest products, are the ones that should bear more responsibility for implementing sustainable forest management. Such an approach is much more practical and ethical and, as such, will lead to improvements in protecting and managing the global forest estate.

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<sup>21</sup> Lon Fuller, *The Morality of Law*, (1969), 5.

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