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**Linking Sustainability and Security: The Case of
Timber Certification**

Antonina Ivanova

May 2007



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Linking Sustainability and Security: The Case of Timber Certification

Antonia Ivanova

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Abstract

Sustainable development reflects an emphasis on integrated solutions to economic development, socio-political stability and environmental health in the global community. In the same context the concept of security is no longer applied only to the military realm, but also to the economic, the societal, the environmental, and the political fields. The forestry sector provides a good illustration of the links between sustainable development and security in both its narrow (military security) and its broad (non-military security) sense. The forests have a substantial impact on the Earth's climate, the loss of forests is devastating to biodiversity and timber sales have been used to fund both state and non-state combatants in a variety of civil conflicts. Timber certification has been put forward as a viable alternative to existing regulations and practices and as one capable of contributing to the mitigation of both climate change and conflict. This paper outlines the evolution of timber certification initiatives. The identities and roles of different stakeholders are discussed, followed by an evaluation of certified forest areas and the implications of forest management for post-war economies. Finally, the role of timber certification and its possible impact on peaceful and sustainable development are discussed.¹

The Author

Antonina Ivanova is a Professor and Senior Researcher at the Autonomous University of Baja California Sur, and Secretary of the Mexican Consortium of APEC Studies Centres. Her research interests are oriented to the interface between international trade, sustainable development, security and environment. She is First Degree Member of Mexico's System of National Researchers with over 100 publications in these areas. She holds a Doctorate by the National Autonomous University of México (UNAM), M.A. by the Institute for Higher Economics Studies of Sofia, Bulgaria and carried out graduate studies at the Institute of European Integration, Brussels. Recently she concluded her postdoctoral research at the Department of Peace Studies, University of Bradford.

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I Introduction: Sustainable Development and Environmental Security

The expansion of sustainable development initiatives in the 1990's reflected an emphasis on integrated solutions to economic development, socio-political stability and environmental health in the global community. The Brundtland Commission (WCED, 1987) and the 1992 Earth Summit in Rio de Janeiro, Brazil, formed the springboards for many of today's initiatives. Despite the intrinsic ambiguity in the concept of sustainability, it is now perceived as an irreducible holistic concept where economic, social and environmental issues are interdependent dimensions that must be approached within a unified framework.

In the same context of complexity it is necessary to open the traditional concept of security in two directions. First, the notion of security is no longer limited to the military domain. Rather, it now tends to have a more general meaning that could be applied also to the economic, the societal, the environmental, and the political fields (Sheehan, 2005: 44). Second, the referent object of "security", the thing that must be secured, is not only conceptualized solely in terms of the state, as was the case in much Cold War era thinking, but now embraces the individual below the state, and the international system above it.

Investigating the most general meaning of security, Abbot et al. (2006) offer an overview of four groups of factors identified as the root causes of conflict and insecurity in today's world and the likely determinants of future conflict: a) climate change; b) competition over resources; c) marginalization of the majority world; and d) global militarization. Current responses to these threats can be characterized as a control paradigm – as an attempt to maintain the status quo through military means and control insecurity without addressing the root causes. The authors argue that current security policies are self-defeating in the long-term, and propose a new approach named sustainable security, that rather aims to cooperatively resolve the root causes of those threats using the most effective means available (p.3).

The literature on the relationship between natural resources and conflict identifies two types of relationship: 1) the resource scarcity and 2) the resource abundance (also known as resource curse). The research group the "Toronto School", associated with Thomas Homer-Dixon¹ focuses on the link between renewable

¹ See Homer-Dixon (1991 and 1994).

resource scarcities and violent, particularly intrastate, conflict (issues such as scarcities of cropland, forest, fish stocks, water). For many states and populations there are obvious environmental threats that outweigh any traditional military threats. Many developing countries, for example, are more immediately threatened by issues such as deforestation or desertification than they are by the threat of external military forces. Rogers (2002:88) argues that the disruption to clean air, water, and the waste-absorbing capacities of natural ecosystems produces effects that need not relate directly to military security, but can trigger economic decline, societal disruption, and therefore conflict. Two examples of this are deforestation, which contributes to global climate change, and abuse of the “global commons” such as the degradation of the atmosphere.

Conversely, the problem of resource abundance - the resource curse – has also been identified as a key factor determining the inception and duration of conflicts, particularly civil wars. The term 'resource curse thesis' was first used by Richard Auty in 1993² and refers to the paradox that countries with an abundance of natural resources have less economic growth than countries without these natural resources. This may happen for many different reasons, including a decline in the competitiveness of other economic sectors, underinvestment in education and mismanagement of revenues from the natural resource sector³. Natural resource income has been associated with economic stagnation and the destruction of other export activities and at the political level, it is associated with violent conflict (Collier et al., 2003; Collier and Bannon, 2003). Even if conflicts are started for other reasons, access to natural resource financing can sustain them (Humphreys, 2005).

The natural resource curse represents an enormous impediment to development. Yet it is important to realize that it is not natural resources per se that are the problem; rather, it is lack of good governance.⁴ Remedying this institutional failure requires changes of law and practice but does not require huge resource investments (Palley, 2003). It is important to stress in this context that the neoliberal model – with its

²Numerous studies, including a notable one by Jeffrey Sachs and Andrew Warner (1995), have shown a link between natural resource abundance and poor economic growth. See also Sachs and Warner (2001).

³More details can be consulted in Gylfason (2000) and Stijns (2006).

⁴Governance describes the process of decision-making and the process by which decisions are implemented. Public institutions conduct public affairs, manage public resources, and guarantee the realization of human rights. Good governance accomplishes this in a manner essentially free of abuse and corruption, and with due regard for the rule of law. Recent studies critique the idea that a market economy and liberal democracy are the two preconditions for a stable peace. It is necessary to have “institutionalization before liberalization” in order to focus on strong institutions and the rule of law (See Paris, 2004; Day and Freeman, 2005).

emphasis on 'small government', reduced public resources, and the privatization of state-owned assets – weakens already fragile states and diminishes their ability to win the loyalty of their citizens as well as their ability to govern (Cooper, 2003; Turner, 2006).

Since the end of the 1990s, the UN Security Council has been forced to grapple with the economic dimensions of intrastate wars, including the evasion of UN sanctions regimes, the trade in so called conflict commodities such as diamonds and timber and the illicit exploitation of natural resources by combatant groups and their foreign sponsors. At the same time, the rise in fair trade certification regimes, a series of advocacy campaigns against child labor, corruption, and other economic issues at the intersection of development and human rights, and an increasing number of lawsuits against companies for their alleged complicity in human rights violation have forced business and industry associations to deal with increased demands to improve the ethical value of their products and services (Lunde and Taylor, 2005). However many of these initiatives have been criticised for being voluntary, for weak implementation and for having few, if any, sanctions for non-compliance. This has led some commentators to describe them as strategic attempts on the part of companies and states to undercut more strident demands to regulate business in the interests of society and the environment (Cooper, 2005; Turner, 2006).

The forestry sector has been selected as a case study here because it is an excellent example of the links between sustainable development and security. Forests have a substantial impact on the Earth's climate, through their role in the global carbon cycle and surface hydrology (IPCC, 2004). The loss of forests is especially devastating to biodiversity and the sale of timber has provided revenue to combatants in a number of civil conflicts.

In the forestry sector, a myriad of efforts to achieve sustainable management of forest resources have emerged. In recent years discussion has also focused on the problem of illegal logging and trade. Countries have been urged to improve law enforcement in the forest sector and to control the illegal trade in forest products. As much as 15 % of the global timber trade has been estimated to involve illegalities and corrupt practices (Contreras-Hermosilla, 2002). In response, there has been increasing interest among the UN and other international organizations, national governments, the private sector and civil society in the use of commodity-tracking systems. At the moment, arguably the best example of such a system has been

developed not in the timber sector but in the diamond industry. Indeed, the rough diamond certification system developed as part of what is known as the Kimberly Process, arguably represents a model of how regulations to promote ethical markets might operate (Cooper, 2005). At the same time however, commentators have also noted how the vulnerability of the diamond industry to potential consumer boycotts of what is a luxury product made the industry particularly receptive to proposals for a global certification system – in a way that might not be the case for other industries such as timber.

The initiative of timber certification has been put forth as a viable alternative to existing regulations, codes and practices. The potential impact of timber certification on the illegal trade and the sustainability of forest resources is difficult to predict; however, the emergence of timber certification into forest policy and forest management arenas around the world is indisputable and requires examination. Timber certification involves the evaluation, monitoring and labelling of wood production from stump to end use. First, the management of a forest area must be certified according to a set of standards or principles of sustainable forestry for a particular forest region. Second, the production and distribution of products from the stump to the final consumer must be confirmed through the chain-of-custody (CoC). Finally, the label attached to the final product must reflect the degree of the certification. Given that worldwide forest products trade has increased by 50% between 1993 and 2003 and was valued at more than USD 150 billion in 2003 (FAO, 2005; Unasylva, 2004), the potential impacts of certification on markets cannot be ignored.

The following discussion will present an overview of the forest industry and the status of timber certification globally. First, the links to sustainability and the security implications of illegal and/or rapacious forestry practices are presented. Second, a brief summary of the development of the certification movement is provided. The identities and roles of different stakeholders in timber certification are discussed, followed by an evaluation of certified forest areas and the implications of specific issues such as forest management in post-war economies. Finally, the role of timber certification and its possible impact on peaceful and sustainable development are discussed.

II Forests and Sustainability

a) Forest industry in the world

Global wood removals are about 3 billion cubic metres (m³) and have been rather stable during the last 15 years. Undoubtedly the actual amount of wood removals is higher, as illegally removed wood is not recorded. About 60% of removals are industrial roundwood, the rest being wood fuel. The majority of the removals in Africa and substantial portions in Asia and South America are wood fuels.

Although accounting for only 5% of global forest cover, forest plantations were estimated in 2000 to supply about 35% of global roundwood. Thus there is a trend towards concentrating the harvest on a smaller forest area. Meeting society's needs for timber through intensive management of a smaller forest area creates opportunities for enhanced forest conservation in other areas.

Forest resources directly contribute to the livelihoods of 90 per cent of the 1.2 billion people living in extreme poverty and indirectly support the natural environment that nourishes the food supplies of nearly half the population of the developing world (World Bank, 2003).

Only a very few developing countries are among the major producers and consumers of forest products except in the case of wood fuel production (FAO, 2005). Wood energy accounts for 7 to 9% of global energy consumed, but up to 80-95% in some developing countries. More than 2 billion people are dependent on wood fuel for cooking and heating.

As already noted, the increase in the global demand for forest products has resulted in a rise in the value of the international trade in forest products from 100 to 150 billion USD between 1993 and 2003 (Unasylva, 2004). Total employment in the (formal) forestry sector increased by about 4% over the last decade, from 12.4 million in 1990 to 12.9 million in 2000 (Lebedys, 2004). In 2000, the total gross value-added in the forestry sector amounted to 354 billion USD (1.2% of global GDP) and the pulp and paper industry accounted for about half of the total gross value-added in the forestry sector (Ibid.). Increasing the production of forest products also has positive carbon implications if the raw material is coming from sustainably managed forests.

The global picture of trade in wood and wood based products has changed substantially in recent years with the emergence of new big players such as China and Russia, and with the change of traditional exporters of primary timber products in Southeast Asia into exporters of secondary processed products due to the development of processing industries and resource constraints (Hashimoto and Moriguchi, 2004). China has become the world's largest importer of industrial logs (FAO, 2005). Market-based development of environmental services from forests, such as biodiversity conservation, carbon sequestration, watershed protection and nature-based tourism, is also receiving attention as a tool for promoting sustainable forest management. However, the expansion of these markets may remain slow and depends on government intervention (Katila and Puustjärvi, 2004).

b) Forests, climate change, biodiversity

Sustainable forest management (SFM) can be regarded also as sustainable carbon management, and thus instruments supporting SFM also support the mitigation⁵ of climate change. Unlike many other sectors, forestry can contribute both to reducing emission sources and to increasing sinks. Due to the direct link between land-use decisions and sustainable development, forestry plays a key role when addressing the climate change problem in the broader context of global change and sustainable development. As a major form of land cover globally, hundreds of millions of households depend on the goods, services and financial values provided by forests. Land-use changes can negatively affect those that most closely depend on forest resources for their livelihoods. Deforestation continues at an alarming rate; a gross loss of 13 million hectares per year (ha/yr) is reported, due mainly to the conversion of forests to agricultural land and is the major contributor to greenhouse gas emissions from the land use sector. Net forest area⁶ continues to decrease, but at a lower rate than before 2000, at an average rate of 7.3 million ha/yr in 2000-2005 (UNECE/FAO; 2006a). Forest planting, landscape restoration and natural expansion of forests have reduced the loss of forest area.

By 2030 the economic potential of a combination of measures in afforestation, avoided deforestation, forest management, agroforestry, and bioenergy⁷, could yield

⁵ *Mitigation* of climate change means alleviation of climate change through diminishing the carbon dioxide (CO₂) emissions.

⁶ *Net forest area*: the difference between the new forests (*afforestation*) and loss of forests (*deforestation*).

⁷ *Deforestation*: loss of forests; *afforestation*: planting of new forests; *forest management*: the stewardship and use of forests to provide a range of benefits over time; *agroforestry*: the growing of both

on average an additional sink of around 3150 MtCO₂/yr. Of this emission avoidance, 65% will be located in the tropics (IPCC, 2004). Policies have been generally most successful in making forestry activities more sustainable where they help forestry to be more profitable than alternative uses of land, and there is sufficient political will and regulatory and institutional capacity for effective enforcement.

Carbon mitigation in forests has been reported to be more cost-effective than mitigation options in other sectors (Kauppi et al, 2001). The activities, aimed at conservation and enhancement of forest sinks, are generally also consistent with the goals of sustainable management of forests. When forests are managed sustainably providing an annual yield of fibre and timber, the wood products can substitute other materials whose production would otherwise generate emissions. The forest mitigation options include reducing emissions from deforestation and forest degradation, enhancing the sequestration rate in existing or new forests, and providing products as a substitute for fossil fuels and for more energy-intensive materials. Properly designed and implemented, forestry mitigation options may also provide substantial additional benefits in terms of employment and income generation opportunities. Some other potential benefits are biodiversity and watershed conservation, provision of timber and fibre, as well as aesthetic and recreational services, and probably adaptation to climate change.

The loss of forests is especially devastating for biodiversity. Although tropical rain forests cover less than 10 per cent of the earth's surface, half of the world's plant and animal species populations are sheltered by them (Teck and Valencia, 1990: 16). These forests are massive reservoirs of thousands of yet-undiscovered species. Roughly 10-20% of current global forestland is projected to be converted to other uses by 2050 (MEA, 2005). Temperate mixed forests, tropical forests and open woodlands are among those biomes that are projected to lose habitat and species at the fastest rate⁸; these are often the habitats richest in biodiversity.

trees and agricultural crops on the same piece of land; *bioenergy*: the use of biomass as a thermal heat source; *biomass*: is a fuel from any recently living organism such as chipped wood.

⁸For detailed research about the impacts of deforestation on the wild life consult Bass et al. (2003)

III Forests and Security

a) Timber as a conflict commodity

Whilst there are clear environmental security issues raised by the management of timber production, commentators have also identified the timber trade as one which, in some countries at least, may be characterised by quite high levels of illegal logging and as one which may even be used to fund civil conflicts. In the latter case, such timber is often referred to as 'conflict timber', defined by Global Witness as "timber that has been traded at some point in the CoC by armed groups, be they rebel factions or regular soldiers, or by a civilian administration involved in armed conflict... either to perpetuate conflict or take advantage of conflict situations for personal gain." (Global Witness, 2004a). Illegal timber, on the other hand, is timber that has been logged in contravention of national or international laws.

Although there is often a high degree of overlap between these issues with so called "conflict timber" or "logs of war" also being illegal, this is not always the case. Legitimate governments that use the resources of the timber trade to finance the prosecution of wars against rebel groups within their own country may conceivably be acting unethically, unsustainably and engaging in "conflict trade" of a sort, but also acting legally (unless, as in the case of Liberia, this trade has been subject of a international embargo). Conversely, whilst the trade in timber of rebel groups may, strictly speaking be illegal, unsustainable and a form of conflict trade, it may conceivably be deemed ethical if such groups are perceived to be fighting repression.

A feature of the debate on both the illegal and conflict trade in timber is the emphasis placed by commentators on the way globalization and the associated reduction in trade barriers, border controls and transport costs has facilitated the movement of illicit goods (Turner, 2006).

The trade in conflict timber was brought to prominence in 2001 by a UN panel of experts investigating the illegal exploitation of natural resources in the Democratic Republic of Congo (DRC). Since 1998 the trade in timber from the DRC has helped fund a conflict that has killed 3.3-4.7 million people - the greatest loss of life since the Second World War (UNSC, 2002). The volume of wood removed by rebel factions, companies and government-armed forces of neighbouring countries is significant, so great that in neighbouring Uganda the market price halved. The panel found that the conflict was self-perpetuating, as each party had financial interests in its

continuation. It uncovered extensive networks established and maintained by Uganda, Rwanda and Zimbabwe, and listed some 50 Congolese and foreign nationals who should be sanctioned and another 85 companies judged in violation of OECD guidelines for multinational enterprises, all of them involved in the exploitation and trade of natural resources including timber.

According to Thomson and Kanaan (2004) specific links between timber and violent conflict include:

1. The conflict timber trade which is closely linked to the broader problem of illegal logging and often involves the same companies, trade networks, and entrepreneurial methods.
2. Timber revenues have financed national and regional conflicts in Cambodia, Burma, the DRC, Ivory Coast, and Liberia. Conflict timber often heightens or prolongs existing crises, because a conflict's duration depends partly on the financial viability of armed groups (Price-Smith, 2002).

Forests are comparatively attractive as a conflict commodity for a number of reasons:

1. The many buyers and sellers of timber make it difficult to track extraction activities.
2. The timber trade does not require a large amount of capital and, compared to oil, produces high returns on investment.
3. Timber does not require processing.
4. Timber is more accessible than subterranean minerals (Thomson and Kanaan 2004).

b) Forests and local conflict

Timber, as an easily exploitable, valuable commodity, has become a resource of choice for warring factions, criminal networks and arms-dealers, providing finances and (via the infrastructure of the industry) even logistics. Host governments or rebel groups sometimes allocate timber concessions to reward supporters. This has gone relatively unchecked and, as already noted; timber has fuelled conflict in countries such as Cambodia, Sierra Leone, Ivory Coast, DRC, Burma and Liberia.

Box 1: Tropical Countries with Armed Conflicts in Forested Regions in the Past 20 Years

Angola, Bangladesh, Cambodia, Colombia, DRC, Cote D'Ivoire, Guatemala, Guinea, Honduras, India, Indonesia, Liberia, Mozambique, Mexico, Myanmar, Nepal, Nicaragua, Nigeria, Pakistan, Papua New Guinea, Peru, Philippines, Republic of Congo, Rwanda, Senegal, Sierra Leone, Solomon Islands, Sudan, Surinam, Uganda.

Source: Security, Development and Forest Conflict: A Forum for Action (2006)
<http://www.etfrn.org/ETFRN/sdfc/background/overviewdk.htm>

For example, although Sierra Leone's civil war is primarily associated with the trade in conflict diamonds, it was also partly financed by elements of the Liberian timber industry (Reno, 2000). In 2003 the former Liberian president, Charles Taylor, indicted for war crimes and crimes against humanity by a UN special court, admitted to using timber funds to buy weapons in contravention of a UN arms embargo. Investigations revealed that the Liberian government also armed and supported rebels in western Ivory Coast, using a Liberian timber company's warehouse to store weapons and its bushcamp to house rebel fighters (Global Witness, 2005).

Similarly, cross-border timber sales in the 1990s provided the Khmer Rouge in Cambodia with a monthly USD10-20 million during the dry season to fund its fighting (Renner, 2002). The trade not only sustained the Khmer Rouge's activities, but control of timber resources became a cause of conflict.⁹

While all governments have the sovereign right to use natural resources within their borders, they must follow their own laws and international regulations. Ideally, they should also extract resources in a sustainable manner and for the benefit of all. Often, where timber has been used to fund conflict, governments, rebel groups or individuals have used war to finance political goals or create personal fortunes. Funds are taken from an already impoverished population and appropriated by a small elite.

⁹ Boyce (2005) presents an extensive analysis about the Cambodian case.

The timber trade is often abused to facilitate weapons imports and fuel conflict. It is estimated that 40-50% of the world trade in small arms is illegal, but the figure is probably much higher as a significant number of legally traded arms end up in the illegal arena (ATIBT, 2002) Without proper controls, this trade will remain attractive and lucrative, and international agreements for trade liberalisation that have also made unregulated cross-border trade easier will continue to be exploited.

Each logging company's circumstances are different and their engagement varies in degree: some may have been directly complicit in financing conflict, while others might have been coerced. But either way the results for local people - abuses, corruption and destabilisation - are the same (Blondel, 2004). Some importing companies have launched extensive public relations campaigns: they proclaim their concern for human rights and the environment but are directly linked with environmental destruction.¹⁰

Global Witness and other NGOs have for years provided information to importers about the abuses and unsustainable practices of many in the Liberian logging industry. But companies that import conflict timber have claimed that if there is a problem it is within the supplier country and many traders have continued to buy from logging companies known to have been involved in arms imports. For example, despite claims to import only from responsible, sustainable providers, many importers continued to purchase from Liberia up to 2003 when the UN embargo was imposed.¹¹

In West Africa, Liberia is the only country that has a considerable amount of its original rainforest cover. It harbours large amounts of endemic flora and fauna such as the Pygmy Hippopotamus and houses some 2000 flowering plants, 125 mammals, 590 birds, 74 reptiles and amphibians and over 1000 insect species. But recently Greenpeace (2004) has noted that Liberia's rainforest are the most seriously

¹⁰ WWW (2006) highlights the case of Asia Pulp and Paper (APP) that on August 7, 2006 falsely advertised itself in two major international newspapers as a company that protects forests and wildlife and is committed to "conservation beyond compliance". In fact APP is one of the most destructive forces behind forest loss on the Indonesian Island of Sumatra. These forests are known as "High Conservation Value Forests" (HCVF) due to their environmental, socio-economic, cultural, biodiversity and landscape values.

¹¹ Such companies include the Exotic Tropical Timber Enterprise (ETTE); the Oriental Timber Company (OTC); the Danish company DLH-Nordisk, which had halted imports from Liberian companies ILC and MGC (See Blondel, 2004; WWW, 2006). Other example is the company Danzer Group that has been knowingly financing illegal loggers and bribing officials in Africa (See Greenpeace, 2004).

threatened in the region; with already 50% destroyed. This has had, and will continue to have, negative implications for the region as a whole.¹²

While companies along the CoC deny responsibility, the effects of the conflict timber industry on civilians are immediate. The people that governments, logging companies and importers claim to be concerned about rarely see the revenue improve their lives; the industry worsens conditions by facilitating arms imports, and there are human rights abuses committed by government and logging company militias, long-term destruction of forests and an infrastructure of violence and plunder. People who live in or near logging concessions have their way of life destroyed and lose access to forests (Global Witness, 2006:14). Because of deforestation and because they are often forcibly removed from their land, locals' non-timber resources such as medicines and vegetables become scarce. Changes to local ecologies often lead to floods and droughts. The argument that the timber industry betters lives is deeply problematic in countries where conflict trade predominates and usually only made by those who have a vested interest in the trade (Ibid.).¹³

The criminalisation of the timber trade has not been checked much by the international community. Shipping laws¹⁴ have not changed and lack of transparency continues. The international community has also not taken proper action over trade laws, especially those covering the arms trade and conflict commodities - other than UN sanctions on specific actors - there are no general laws governing conflict commodities, there is not even an internationally accepted definition of what constitutes "conflict trade". Action against 'conflict timber' in consumer countries would require new legislation which would have either to adopt a definition of illegality based on the producer country's laws (as in the US Lacey Act)¹⁵ (Brack, et al., 2002) or establish some form of external (and if possible, preferably internationally agreed) standards which products would have to meet (such as evidence of independently verified CoC monitoring, etc.).

¹² The region of Upper Guinea Rain Forest includes forested areas in Sierra Leone, Guinea, Liberia, Ghana, Togo and the Ivory Coast.

¹³ Sometimes legal logging may also be characterised by rapacity and exploitation. That is why it is so important to have sustainable forest management and timber certification.

¹⁴ The shipping industry provides the main means by which illegal logs are transported. That is why it is very important to create new legislation with punitive sanctions. There are proposals to include not only penalties, but also confiscation of the illegal timber cargo or even confiscation of the ship. For more details see Reuveny (2000).

¹⁵ The Lacey Act protects both plants and wildlife by creating civil and criminal penalties for a wide array of violations. Most notably, the Act prohibits trade in wildlife, fish, and plants that have been illegally taken, possessed, transported or sold. The Act prohibits the falsification of documents for most shipments of wildlife and prohibits the failure to mark wildlife shipments.

As already noted, in 2003 the UN Security Council imposed a ban on all Liberian timber. In addition, reports by the UN expert panel on the DRC also forced companies mentioned to rethink business policies, while many assets were frozen and several people in government positions were suspended. In Cambodia, Global Witness was introduced as an independent forest monitor to decrease the level of corruption and illegality of the timber trade (Global Witness, 2004b). However, a lot of the expert panel's recommendations for the DRC were not heeded by the international community. In the case of Cambodia, the independent monitor has been dismissed despite doing the job properly, while the international donor community has sat back and watched a small hope for transparency there dwindle (Blondel, 2004).

As Humphreys (2005) argues, to date sanctions have proved to be a blunt weapon of policy, with most attempts at coercion through sanctions ending in failure. If armed groups finance their activity through trading in illegal commodities such as drugs or smuggling arms illegally, the existence of sanctions is likely to be irrelevant. There are several political economy reasons why sanctions may fail (Kopp, 2005). The ability to transship through neighboring states can severely reduce the impact of sanctions. Leaders can also turn sanctions to their advantage, both economically and politically, by maintaining control over increasingly scarce commodities (the best example was Saddam Hussein in Iraq). Hence, even when sanctions have real impacts, it is not just the intended targets that suffer. Sanction policies have become more sophisticated, with the development of targeted commodity sanctions and with the freezing of assets or the blocking of particular individuals "freedom of movement" (Fearon and Laitin, 2003). However, because of their lack of comprehensiveness, targeted sanctions may lead to the exemption of particular commodities through successful lobbying by industries with economic interests in those commodities. Consequently there is still a need to consider ways in which sanctions regimes can be more effective.

The creation of UN expert panels and monitoring mechanisms by the Security Council was largely in response to poor state performance in monitoring and reporting back on the relative progress of sanctions implementation and of continuing sanctions violations in Angola, Sierra Leone, Liberia, Somalia, and elsewhere. They have improved the understanding of sanctions-busting networks and practices and

have identified sanctions violators and others who have benefited from the illicit exploitation of natural resources in conflict zones (Ballentine, 2005:453).

The international community, trade organisations and importers must take greater responsibility in regulating the trade instead of treating it with a lot of rhetoric which tends to add up very little in terms of concrete action. This inaction is unacceptable, as citizens and consumers of importing states, as well as their trading partners, have a right to expect that the goods they buy are not a cause of conflict.

IV Forest Management and Timber Certification: a Tool for Sustainability and Security

a) International certification schemes

The idea of timber certification can be traced to the mid-eighties. The United Kingdom delegation to the International Tropical Timber (ITTO) presented a proposal to require that the forest management practices of the producer countries, primarily tropical forest areas in developing economies, be evaluated as sustainably or unsustainably managed sources of wood (Crossley, 1996). The producer countries followed immediately with the assertion that the evaluation be applied to all of the ITTO countries and that temperate forest countries should also be held to high standards of sustainability and global environmental responsibility. Concurrent attempts to reduce the logging of tropical forests through import bans and public disapproval campaigns in Europe were gradually replaced with the current system of independent, third-party certification by internationally recognized auditing agencies. First-party (internal assessment) and second-party (client assessment) certification activities were also developed which offer alternative, less transparent assessments of forest management performance.

Two alternative international schemes have been put forward as options for timber certification: The Forest Stewardship Council (FSC) Principles and Criteria of Sustainable Forestry and The International Organization of Standardization (ISO) 14000 series for environmental management systems. The FSC's certification scheme measures the state of the forests and the quality of management according to pre-described performance standards. Products which originate from FSC-certified forest areas and are distributed through FSC-certified CoC channels can be marketed as ecologically sensitive products (ecolabels) under the FSC logo. Label recognition and trust by consumers are essential characteristics of products in

certified markets. The FSC has certification readiness developed especially for large tracts of forest. Representatives of economic and environmental interests are on the FSC Board of Directors, although environmental NGOs form the primary active component of the FSC (Oliver 1996). The FSC standards are international and are meant to apply to all forest regions and types. National FSC endorsed initiatives address specific regional issues.

The ISO is a worldwide organization which provides standards for consumer products and services based on international agreements. The ISO 14000 series¹⁶ evaluate the existence of and commitment to the achievement of internal goals under an environmental management system in a business. This type of evaluation is not an actual performance assessment and does not carry an environmental labelling claim, although independent, third-party auditing of an EMS (environmental management system) for internal use is an option (Bass 1998). Currently, applications for EMS certification under the ISO 14001 are beginning to emerge.

There are significant differences between the ISO and FSC processes. The EMS standard from ISO (ISO 14000) is a process standard. It specifies how a company's management system must be organised to address the environmental aspects and impacts of its operations. ISO certification does not result in a product label. ISO requires no environmental performance beyond commitment to applicable regulations and legislation and commitment to continual improvement. In other words, two timber companies with different environmental records could both receive ISO certification. Also the timber companies from two different countries with very different environmental laws could all receive ISO certification.

FSC's scheme is based on specified performance standards that need to be met by the forest operation before a certificate is issued. The FSC accreditation system is based upon the relevant ISO-guides. The FSC encourages stakeholder input - for example, FSC recommends that in the consultative process for developing regional standards, "...special efforts should be made to include stakeholder groups which are often excluded from decision-making processes. These groups may include; under-represented social and ethnic groups, women, youth, rural communities, land owners, loggers and foresters. The FSC places particular importance on those people whose livelihoods depend on the forest." (FSC, 2002).

¹⁶ Consult "List of ISO 14 000 Standards" <http://www.iso14000-iso14001-environmental-management.com/>

The majority of both trade and industrial concerns prefer the ISO system to the FSC system. Forest owners consider the FSC system to be inappropriate for small forest owners. On the other hand, NGOs regard the ISO system as ineffective in that performance is not specifically evaluated (Linden and Uusivuori, 2002). Nevertheless, these two systems are not necessarily mutually exclusive. FSC and ISO are fully compatible and can be complementary. ISO standards can provide the framework and control mechanisms for the management system, within which the FSC standard serves as the target performance level.

As certification continues to evolve, it will include experiments in combining the FSC and ISO approaches, as well as other sustainable forestry initiatives, to monitor and evaluate forest management practices. Other efforts offer a diverse set of options for national and regional assessments of forestry practices that are not certification systems per se, but do offer some system of evaluation and monitoring. International intergovernmental bodies address broader policy issues through negotiated protocols of criteria and indicators of sustainable forestry.

Examples of these include the Montreal Process for temperate and boreal forests, the Helsinki Process for Europe, and the Tarapoto Proposal for the Amazon (Upton and Bass 1995). NGOs and independent working groups have tended to support local sustainable forestry and forest certification efforts including The Rogue Institute for Ecology and Economy, the Sigurd Olson Environmental Institute, and the Good Wood Alliance in the U. S., the Indonesian Ecolabelling Foundation, the Imported Tropical Timber Group of New Zealand and the Bolivian Council for Voluntary Forest Certification (Crossley 1996). Source of origin claims, which allow the consumer to identify with the geographical origin of a minimum proportion of the raw material input of a product, include the Brazilian System for Certification of Origin of Forest Raw Material (CERFLOR), Swiss Wood in Switzerland and Woodmark of the Forest Industry Council of Great Britain (Upton and Bass 1995). These latter claims do not constitute timber certification, but they are additional examples of marketing attempts to capitalize on the worldwide call for sustainable forest management.

b) Stakeholders in the certification process

There are several points of production and consumption along the flow of wood from the forest to the mill to its end use. Certification is best understood through a

discussion of the various players affected throughout the process. These roles may change over time as certification matures into an established market tool for forest products. In the meantime, the potential impacts of certification become apparent through the roles of the diverse stakeholders.

Consumers

It is particularly important to understand the roles of different consumers in the market for certified wood products. Today's consumers exhibit awareness of the degradation of the global environment, at home and abroad. Changing consumer attitudes suggest that retailers and wholesalers have the opportunity to capture consumers' preferences for environmentally friendly products by marketing certified wood products. Given the choice of wood products from random sources or wood products from forests that have been certified by reliable, independent evaluations as sustainably managed, today's consumers are expected to choose the latter (Ingram and Enroth, 1999). More precisely, however, end-consumers do not create demand directly, by refusing to purchase wood products if not of a specific type, rather, they exercise their preference once a choice is available through the substitution of certified wood products for non-certified products.

The actual demand for certified wood products is driven primarily by organized groups of wood purchasers. The purchasers' groups are supportive of the FSC certification system and normally pledge that a certain proportion of their wood purchases will be certified by the FSC system in the future. The purchasers' groups are often identified by a name which reflects that target period, for example the UK 1995 Plus Group or the Belgium Club 1997. These purchasers are not, as yet, offering price premiums to producers of certified wood, although certification does add some cost to its production (Carter and Merry 1998). In addition, the original goals (social and environmental) of the certification movement do not entirely drive the purchasing decisions (market position and environmental image) of these primary demand sectors of certified wood markets. This parallel, although disengaged, development of certification between intentions and behaviour raise concerns about the long-run impacts of certification on forest resource management.

Europe's consumption of wood-based panels amounted to 59.2 million m³ and paperboard to 73.1 million tonnes in 2004, with a 2.7 % increase expected in 2005 and 2006 (ITTO, 2005). Despite its large forest resources, Europe (minus Scandinavia) is a major net importer of forest products and the second largest

destination for forest products globally, accounting for about 27% of global inter-regional trade. The results of a consumer survey in the United Kingdom, Germany, Italy and France show that the majority of EU consumers regard sustainably managed forests as environmentally friendly and of significance to them (Rametsteiner, 2002). Environmental friendliness, as a product feature, is nevertheless of secondary importance, warranting only a small increase in price for certified products. This somewhat contradictory nature of consumer behaviour and consumer attitudes is not uncommon.

The consumption of certified roundwood in Europe increased by 22 % between 2001 and 2005 (FAO, 2006). The primary reason for the market expansion for certified wood products in Europe is the projected increase of membership in the buyers' groups, particularly in the paper sector. This expansion includes a market pull factor by European companies, particularly by large German publishing companies.

There is also expected to be a market push factor, created by the supply of certified timber products from Scandinavia and Canada. Canadian companies, for instance, have announced plans to certify about 20 million hectares of forests under the Canadian Standards Association (CSA) with an output of about 25–30 million m³ of timber per year over the next few years (Ibid.).

Nonetheless, the CSA, which is considered compatible with the principles and criteria of the Montreal Process¹⁷, and the FSC, which has established a national working group in Canada, are making efforts which could potentially generate a significant supply of certified wood products in North America. A significant step forward in the certification arena has also occurred in Sweden. In late 1997, representatives of the forest industry and environmental groups negotiated an agreement on certification and ecolabeling (Swedish Forest Industries Association 1997). This level of cooperation was the first to occur between the environmental community and the forest industry of a leading industrial forest resource nation.

Producers

The producers of forest products include public agencies, private corporations, individuals, and communal landowners who extract timber from the forest through primarily industrial logging operations or subsistence use. Landowner patterns, forest

¹⁷ The Montreal Process is the Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests; formed in Geneva, Switzerland, in 1994.

fragmentation and the opportunity costs of certified forest management are some of the factors which will influence producer decisions to certify or not to certify. Where land tenure is under public ownership, exploitation and subsistence rights are often given to communities and companies. Even where traditional community land rights are given precedence over public ownership, property ownership is rarely an individual private right. It is rather a community or collective obligation to determine distribution and usage patterns. Therefore, pressures to “regulate” forest land use through market mechanisms such as certification are often not under the control of those who would bear the cost of meeting these standards. On the other hand, where land ownership or tenure rights are clearly defined, the cost of certification is borne by the owners of those rights, be they private persons, institutions or industry. For example, non-industrial private forest (NIPF) owners maintain forest land for a variety of reasons, many of which may not reflect any particular timber management objective. With little intervention in the forest, certification may easily be gained. However, even small amounts of management will require additional costs that many NIPFs may not want to bear without compensation. A survey made by the European Forest Institute, found that many private forest owners either operate on very low margins or lose money from their forests. This is likely to prevent private forest owners certifying their forests (Rametsteiner et al. 1998).

The 12 million landowners in Europe and the nearly 10 million NIPF land owners in the United States present a particular challenge to certification systems relative to the impacts of cost (Kiekens 1997; National Research Council 1998). In the U.S., more than 85% of the private forest ownership areas are less than or equal to 20 ha in size. The potential for the cumulative loss of small-sized or marginal forest land must be considered in future timber supply projections. Thus, the fragmented nature of forest ownership in North America and Europe raises the question of whether certification can be applied to all forest areas. Many smaller areas of forest land can not individually return benefits high enough to cover the direct and indirect costs of certification. One option which might allow cost-effective adoption of certification standards is group certification by a collection of landowners.

Forest industries have taken the initiative to develop sustainable forestry programs, based on the demands of their consumer base and the traditional goals of sustained maximization of profits for member firms. This is an example of first-party certification only, yet it represents the industry’s willingness to participate in the development of sustainable forestry concepts. Environmental and sustainable management

programs have been instituted in the U.S., Europe and other regions through forest industry associations and partnerships such as the American Forest and Paper Association, the Netherlands Timber Trade Association, the U.K. Timber Trade Federation, the Mexican Council for Sustainable Forestry, the Imported Tropical Timber Group of New Zealand, and the Malaysian Timber Industry Board (Ingram, 1998).

Environmental “image” and “credibility” are essential issues for the forest industry. From the industry’s perspective, for instance, the competitiveness of forest products against steel, plastic, glass and other products, calls for a globally accepted forest management regime. Certification secures access to markets and can also create competitive advantages for firms in the short run. Certification is therefore an important tool for marketing. A recent report of the European Forest Institute regarding potential markets for certified forest products in Europe provides clear evidence of the demand from forest industries for a timber certification system in order to provide environmental guarantees of sustainable forest management and use. It is interesting to note that 75% of Finnish, 68 % of British and 60% of German companies considered that a widely implemented timber certification system was needed. In all three countries, the ISO was the first choice (60%) as a governing body for a certification system. The second choice was an intergovernmental organization such as the EU (25%). Very few companies wanted an international environmental organization such as FSC (12%) to be the certifying body (Rametsteiner, 2002).

c) ITTO and the forest management

The ITTO is an intergovernmental organisation promoting the conservation and sustainable management, use and trade of tropical forest resources. Its 59 members represent about 80 percent of the world's tropical forests and 90 percent of the global tropical timber trade. The ITTO was established by the International Tropical Timber Agreement (ITTA), which was adopted in 1983 and entered into force in 1985. The ITTA is a commodity agreement set up in response to growing concerns over the future of tropical forests and as such it explicitly recognises the need to balance conservation and the sustainable use of tropical forests.¹⁸ The ITTA was revised in

¹⁸ Some ecologists defend the conservation of natural resources without any regard to the local communities. The author considers that it is necessary not only protect the environment but to do so in ways that sustains and promotes local livelihoods. Sustainable development promotes sustainable land

1994 to include broader provisions for information sharing.¹⁹ In 1998 the ITTO adopted the criteria and indicators for sustainable management of natural tropical forests. The recently renewed ITTA, 2006, is expected to come into force in 2008 and will operate for ten years, with the possibility of extensions of up to eight years.

Participants at the ITTO workshop on phased approaches to certification, held in Switzerland (2005), were divided over the relative importance of ensuring the legality of certified timber. In order to encourage producers to move towards more comprehensive and effective forestry management, they considered a so-called 'phased approach' in which full certification would remain the goal but companies and other forest owners would be able to achieve market recognition and benefits as they improve their forest management practices and move towards full certification (ITTO, 2005). For example, the first stage could include a baseline requirement for basic certification, and successive stages could involve increased implementation of SFM practices that would in turn be verified and recognised by the certifier.

Although all participants agreed that the verification of legal origin could constitute part of the first stage of a phased approach, some participants emphasised the need for a more extensive verification of legal compliance. This would require that certified producers be subject to an extensive in-depth audit of their adherence to domestic laws relating to forestry and sustainable development. Other participants said that this approach might, in fact, hinder efforts to ensure SFM because it would increase the costs and procedural burden on producers wanting to get certification (ITTO, 2005).

The ITTO participates actively in the work of the UN Forum on Forests (UNFF) and the Collaborative Partnership on Forests (CPF) established to facilitate its work. The organization undertakes missions to several countries to promote SFM and strengthen its collaboration with the various processes aimed at establishing criteria and indicators for ascertaining the status of forest management (Montreal, Tarapoto, ATO etc.). In 2005 the body convened four national level field training workshops to encourage forest management unit level reporting based on its Criteria and Indicators for the Measurement of the Sustainable Management of Tropical Forests. These were attended by over 150 forest concessionaires and managers.

use while ensuring a more balanced geographical distribution of economic activities. It also helps avoid excessive pressure on certain parts of the forests and heed ecological requirements everywhere.

¹⁹ See [BRIDGES Trade Biores](#), 4 March 2005

The ITTO works on forest law enforcement (FLE), collaborating with the Food and Agriculture Organization of the United Nations (FAO) to publish “best practices”. Partly due to concerns over FLE and the legality of timber supplies, timber certification remained a topical issue in 2005. Forestry operations in many countries were seeking some form of certification, either through the FSC or via other avenues (e.g. ISO 14000, national standards authorities, etc.). Tropical countries are increasingly developing national schemes²⁰, led by Malaysia’s National Timber Certification Council (MTCC) and Indonesia’s ITTO-supported Ecolabelling Institute (LEI), both of which marketed certified tropical forest products under their own labels in 2005. The proliferation of national schemes has led to numerous calls for a framework for mutual recognition between schemes and ITTO has been active in attempting to facilitate agreement on such a framework, as well as promoting phased approaches to certification that recognize progress towards meeting certification goals in countries still in transition to SFM (ITTO, 2006).

d) Outlook for forest management and certification in the world

Wood production is the primary function for about one third of all forests. However, forests are more and more managed for sustainability. Nearly 90% of forests in industrialized countries are being managed “according to a formal or informal management plan” (FAO, 2001). National statistics on forest management plans are not available for many developing countries, but preliminary estimates show that at least 123 million ha, or about 6 percent of the total forest area of developing countries, are covered by a “formal, nationally approved forest management plan covering a period of at least five years” (Ibid.)

The initial rush of timber certification began soon after the introduction of the FSC²¹ program in the early 1990’s. By July 1998, a total of 10.3 million hectares of forests were certified by the FSC process, of which 1.5 million hectares were certified in the U.S. and more than 6 million hectares were certified in Europe (approximately 42% of the forest area). The forest areas of the U.S. plus more than 3 million hectares certified in Sweden, accounted for 45% of the total FSC certified forests by the middle of 1998 (Ingram and Enroth, 1999).

²⁰ One regional level example is the African Timber Organization which is implementing the Pan African Certification Scheme. However its efforts are still at an embryonic level. (See FSC, 2002b).

²¹ While the ISO 14001 standard has been adopted, it has not yet been widely applied in forestry sector.

In less than ten years, the average annual area of forests certified by the FSC has been approximately 0.5 million hectares. The total area of FSC-certified forests has increased by approximately 12% each year (FSC, 1998). The area of forests certified under the FSC almost doubled in the first half of 1998, while at the end of 2000 about 80 million ha were certified (FAO, 2001). As of January 2006, FSC has certified more than 67.2 million hectares²² of forest in 57 countries. As can be seen in Figure 1 more than 80 % of the certified area corresponds to the developed countries in Europe and North America (FSC, 2006). The countries of the Asia-Pacific region and Africa, where the greatest sustainability and conflict problems exist, represent only 7 % together. That is why there is an urgent need to expand the certification process in these regions.

Figure 1



FSC-certified forests at the close of 2005

Source: FSC (2006)

Countries have been urged to improve law enforcement in the forest sector and to control the illegal trade in forest products. Forest Law Enforcement and Governance²³ (FLEGT) at the East Asia Ministerial Conference and the EU Action Plan for FLEGT are the most comprehensive plans to fight illegal logging and associated trade. The world's richest nations (G8) have also agreed to implement measures to tackle illegal logging (G8 Gleneagles 2005). As much as 15% of the global timber trade has been estimated to involve illegalities and corrupt practices. As

²² <http://www.pefc.org/internet/html/index.htm>, http://www.fsc.org/en/whats_new/fsc_certificates

²³ The Forest Law, Enforcement, Governance and Trade (FLEGT) initiative creates a licensing system to identify legal timber products for export.

already noted this is equal to USD 10 billion losses in assets and revenues every year (Contreras-Hermosilla 2002).

About 50% of the forests in Western Europe and North America are now certified for sustainable forest management according to independent, internationally recognized certification programmes. Certified forests in North America and Europe account for over 96% of the world's certified forests (UNECE&FAO, 2006). Demand for certified forest products is growing, driven by concern for the sustainability of supply, either by companies up and down the wood chain, or by purchasers of wood and paper products, especially business-to-business and governments. Considerably less tropical forests are certified (approximately 1% of certified forests). However it is now difficult to export products from uncertified tropical forests to environmentally sensitive markets in the UN Economic Commission on Europe (UNECE) region, for example to the Netherlands or the U.K. Conversely, tropical timber from certified forests in some tropical countries, e.g. Malaysia, is finding improved export opportunities and strong market growth. Many tropical countries are not able to achieve certification in the short term and are advocating a phased approach towards certification of sustainable forest management, to enable market access during the necessary transition period and to maintain revenues to pay certification development costs.

V Forest Management And Timber Certification In Post-Conflict Economies

Civil war increases insecurity in two senses, both of which have economic consequences. It increases the micro-insecurity of violence against the person and against property. It also increases macro-insecurity: the collapse or weakening of those state-level institutions which provide the framework for economic activity, such as non-arbitrary taxation, the rule of law, and sanctity of contract (Collier and Pradhan, 1998:19). Post-war economic reconstruction is surprisingly difficult to obtain even under favourable political and economic conditions. The legacy of war is a key constraint on post-war growth, most notably the damaged commercial network, the loss of trust, and the weakening of market institutions. In addition, political uncertainty in the post-war period inhibits private sector investment and significantly reduces the peace dividend. This is often worsened by inappropriate stabilisation policies (Sala-i-Martin and Subramanian, 2003:6). Military spending does not fall and social spending does not rise as quickly as is generally expected, thus delaying a noticeable

reduction in poverty. The clear sequencing but gradual implementation of government reforms, especially in the social sectors, is important in maintaining entitlements. Civil and economic institutions tend to be adversely affected by war, and consequently need to receive priority funding from donors and governments to accelerate post-war growth and poverty reduction. The case of Liberia is an example of a post-war economic reconstruction scenario (see Box 2). At the end of June 2006, the UN Security Council lifted the trade embargo against tropical timber from Liberia, although the latest expert panel report on Liberia is highly critical of the logging industry, including the lack of benefits for the local population and the potential for exploitation by armed outsiders (Global Witness, 2006:18). In its resolution, the Security Council acknowledged the Liberian government's efforts to transparently manage the timber industry for the benefit of the people; however the government must pass the legislation it needs to gain full control of the timber industry (MDC, 2006). Liberia is expecting to generate substantial revenues that are necessary to meet the reconstruction needs of the country. The government-run Forestry Development Authority estimated that the forestry sector could generate up to USD 20 million, and put 7,000 people back into work (UNOCHA, 2006).

Box 2: Forests in Post-conflict Liberia

- Liberia is blessed with a rich forest resource, a substantial part of which, however, has been lost or degraded in recent years during civil war. With the new government, a newly reconstituted and restructured forest sector could play a major role in economic growth and sustainable development. The success will depend very much on strong political will and international support.
- Liberia's Permanent Forest Estate (PFE) covers an estimated 1.41 million hectares, comprising 1.31 million hectares of natural-forest production PFE and 101,000 hectares of protected PF.
- None of the PFE is currently thought to be under SFM.
- The existing area of protected PFE comprises less than 3% of the country's forests.
- In the past, the Liberian forestry sector has generated up to a quarter or more of GDP, but this has declined due to the embargo and the general disarray of the sector.
- There are few or no reliable inventory data available to facilitate forest management.

- The Forest Development Authority (FDA) is responsible for overseeing the forestry sector, but it is seriously underresourced.
- The FDA has recently attempted to review concession agreements and decide which are legitimate, a difficult task since many files were lost or destroyed during the civil war.
- There is strong support across a range of stakeholders for community-based forest management and greater benefit sharing with rural people.
- No silvicultural²⁴ system has been devised for Liberian forests other than a selective logging regime. The prescribed felling cycle of 25 years is relatively short.
- Much of the timber-processing capacity and other infrastructure was destroyed during the civil war and is yet to be rebuilt.

Source: ISG (2004, ITTO (2006) and Global Witness (2006)

Conflict commodities are now a focus of international action (Collier 2003, 2004; Malone and Nitzschke 2004). Over the last few years, international recognition of the problem of armed conflict in forested regions has grown rapidly. Workshops on the topic have been held in Colombia, Japan, the Netherlands, and the United States, among others (UNECE/FAO, 2006a). A number of global studies and comparative research projects have focused on different aspects of this phenomenon. There has been a lot of interest in best practices for conservation and forest management in contexts of conflict or potential conflict. This has been based largely on the practical experiences of conservation and community forestry initiatives operating in conflict areas, and on efforts to reduce the environmental impacts of refugees. Some evidence suggests that community forestry efforts reduce the incidence of violent conflict. An increasing number of countries find themselves in post-conflict situations. These can pose particular risks to forests, as governments remain weak, there are often many armed people looking for ways to make a living, and economic activity recovers in the forested areas.

As already noted, recent research has identified the problems associated with resource abundance as an important cause of policy failure. This is because the primary sector remains large in relation to GDP so that differences in the scale of

²⁴ *Silviculture* is the art and science of controlling the establishment, growth, composition, health, and quality of forests to meet the diverse needs and values of landowners and society on a sustainable basis.

natural resource rents (and in their socio-economic linkages) condition macro policy in important ways. Most developing countries are resource-rich, a condition that engenders predatory political states that deploy resource rents in ways that cumulatively distort the economy so they generate “resource curse” conditions, which undermine economic growth and environmentally sustainable policies. Low-income conflict countries are overwhelmingly dependent on commodity exports. Consequently their economic management faces all the problems inherent in commodity dependence, including the volatility of world prices that often generates a boom-bust cycle for producers (UNCTAD, 2004). Producers of timber are presently benefiting from stronger growth in China and India as well as Japan’s economic recovery, all of which have driven up prices after years of stagnation. But it is by no means certain that the revenues will be used for development as opposed to being siphoned off for the benefit of national elites. Nor is it certain that the corruption often associated with national resource transfers will be eliminated. Firms acting as agents pay the bribes, thereby enabling timber companies to deny any involvement. Financial globalization facilitates such secret payments, but recent legislation to combat money laundering by organized crime and terrorists has scooped up suspicious transfers by agents with connections to some major companies. Secret bank accounts not only support terrorism, but also facilitate the corruption that undermines development. Similarly, transparency would be encouraged if only fully documented payments were tax deductible (Stiglitz, 2004:1).

Transparency in resource use is crucial. For example, the Republic of Congo has now agreed to publish previously secret revenue data, a condition of further IMF assistance to the country. Liberia has decided to bring in a for-profit, independent outside management company that must be chosen in a fair and transparent bidding process, and have a proven track record in SFM.

Sound macroeconomic policy is critical to the success of microeconomic measures like much of environmental policy, a fact often neglected by environmental reformers. There are two implications of this. First, in the long term, improved governance will enhance the environmentally sustainable management of: renewable resources (by taking account of the total economic value of resources); finite resources (guided by the need to maintain genuine saving). Second, until such improvements occur, environmental policies are likely to underperform unless they are adapted to take account of flawed macro policies.

In this context the main objectives of the new International Tropical Timber Agreement (ITTA, 2006) are: “to promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and to promote the sustainable management of tropical timber producing forests ...”²⁵

The ITTO will help its members (with special attention to the post-conflict economies):

- 1) To improve the competitiveness of wood products relative to other materials, boost the marketing of tropical timber from sustainably managed and legally harvested sources, and share information on certification and other aspects of the international timber market,
- 2) To improve forest law enforcement and governance, address illegal logging and related trade in tropical timber, and undertake sustainable forest management and forest restoration (Forest Newswatch, 2006).

Heightened awareness of illegal logging and the trade in illegally derived wood products have led to growing calls for better governance. Public procurement policies are increasingly being established as part of the solution to these problems (UNECE/FAO, 2006b). During the last three years, there have been some notable efforts to establish “green purchase” regulations for public entities. These have been promoted by a number of governments as well as also by environmental NGOs based in countries such as Belgium, Denmark, France, Germany, Italy, Netherlands, Spain, Switzerland and the U.K, as well as the US and Japan. In many cases, public procurement officers satisfy the new requirements by purchasing only certified forest products (CFPs), which are seen by many procurement offices as guarantees of legally and sustainably sourced wood products. This development of the public procurement process for promoting sustainable forest management and giving preference to certified timber is seen as an opportunity and as one of the driving forces for enhanced worldwide forest and CoC certification.

It is necessary to incorporate, at some level and in some form the “economic dimension” in order to better understand the causes of conflict (Berdal and Malone, 2000) and to avoid it in the future. Solving many of the future environmental problems

²⁵ The expansion and diversification of the international trade in tropical timber are creating jobs, bringing foreign currency to the country and contributing to the economic growth based on the sustainability.

of post-conflict economies will require raising standards of living. One of the traditional paths to development involves opening up the economies to trade. Strengthening developing countries' abilities to trade constitutes a potentially powerful mechanism to achieve the Millennium Development Goals.²⁶ The search for sustainable forestry practices that are also economically sustainable has led to a focus on rapidly growing tree species and plantation forestry, because the invested funds are tied up for a shorter period of time (Tietenberg, 2006:274). This is a good sustainable alternative that also provides the financial resources needed for development.

It is important for post conflict countries to have access to Official Development Aid (ODA) funds and Export Credits. In this context the recent decisions of the World Bank and the Export Credit Agency (ECA) make the principles of legality and sustainability a condition of access to development credits is important. The international financial institutions and the World Bank in particular, have come to recognise the need to tailor appropriate programs for each post war country, so that adjustment policies do not frustrate, but enhance peace efforts (Barnes, 2001).

Other sources of financing for the sustainable management of forests could be the Global Environmental Facility (GEF), the instrument used by the IPCC and the Convention on Biodiversity, or the Clean Development Mechanism (CDM) introduced by the Kyoto Protocol (Duschke, 2002, Herzog et al. 2003).

It is important to complement international financing with domestic funds, such as trust funds, most of which are endowments. Funds can also be created by using existing tax revenues or by introducing "conservation fees", charged to business or to foreign visitors to the country. Legislation and the institutional framework in this sector have a crucial role in implementing sound policies of forest management.

²⁶ There is a long-running controversy about the positive and negative effects of international trade on developing economies. To highlight the details of this discussion is not within the objectives of this paper. For more details about the links between trade liberalisation and the environment see Ivanova and Angeles (2006). The author's opinion is that the positive effects of free trade outweigh the negative consequences arising from integration into global markets. Of course, the national government must also intervene in the redistribution of wealth to create more equity, and mitigate some of the undesirable effects of trade liberalisation.

VI Conclusions

The case of the certification of the timber industry clearly highlights the relationship between sustainability and security, an issue particularly important for post-conflict economies. A peaceful environment is a necessary prerequisite to achieving sustainable development. The relationship between civil war and failures in development is strong and goes in both directions: civil war powerfully retards development; and equally, failures in development substantially increase proneness to civil war (Collier, 2004, Collier and Hoeffler, 2004).

Forest certification, if adopted on a much broader scale can do two things. Firstly, some of the certification schemes can clearly prove that timber was produced under and with consideration of the social and environmental aspects of forest management and that timber comes from known sources, and secondly forest certification can add to the traceability of timber, thus making illegal logging more difficult.

Sustainable management of renewable forest resources can prevent conflict. In general, large-scale clear cutting degrades the social and environmental conditions of local communities and can increase competition for remaining resources. To slow the process, economic incentives that promote large-scale clear cutting should be reduced, local communities should be encouraged to promote SFM, and regulations and incentives should be employed to persuade large companies holding forest concessions to practice SFM. The aim should be to reorientate economic incentives in ways that encourage sustainable practices and to develop regulations (in both producer and consumer countries and across relevant commercial sectors such as shipping) that make the business of illegal logging more difficult. In turn, as a component of a sustainable system, SFM provides economic diversity and thus helps secure rural livelihoods. Promoting SFM in the context of community-based natural resource management can also be a conflict management tool. By involving local communities and institutions, such approaches can mitigate conflict and reduce the potential for violence. Efficient and effective land tenure systems and access to forest resources are crucial for local and indigenous communities and to provide an economic incentive for sustainable forest management. When people have control and ownership of forests, then they have greater opportunities to capitalize on forest assets, and even greater incentive to sustain the resources (Patosari, 2004).

International forest certification schemes can also reduce the likelihood of conflict. For example, the FSC label, which is globally-acknowledged, requires certified companies to guarantee their products' legality, as well as to establish clear tenure, limit environmental impacts, and provide social and economic support for local communities.

Perhaps the most pressing issue is how to focus forest interventions effectively and efficiently on poverty reduction. To this end, the UNFF views its mandate within the context of the broader discussions in the UN system as a whole, such as the policy decisions and targets manifested in the Plan of Implementation of the Johannesburg Summit and the Millennium Development Goals.

While progress towards sustainable forest management can be seen in some parts of the world, many challenges still exist, particularly in developing countries. The success of the international arrangement on forests will ultimately depend on joint action to mobilize political, financial, scientific and technical support for sustainable forest management. Governments, intergovernmental organizations, industry and civil society have critical roles to play, in order to ensure that deforestation and forest degradation are significantly reduced and that the products and services from forests benefit those people who depend on them the most.

Some 150 countries are members of one or more of the nine regional and international processes for SMF. These processes aim at developing, implementing and using certification to guide the monitoring, assessment and reporting on their forests and to improve forest policies and practices. Certification can greatly contribute to economically, socially and ecologically sustainable development also in the developing countries. The reported benefits of mutually reinforcing processes of certification and policy and institutional reforms include: 1) Certification has increased acceptance of community representatives in policy fora; 2) It has raised awareness of the potential of SFM; 3) Certification has advanced more participatory and decentralized forest policy processes; 4) Contributed to better policy definition, and 5) It can increase supply-chain transparency; and improve worker rights, income and safety standards (Patosaari, 2004).

But still there are challenges to meet: 1) Although certification is rapidly becoming a standard requirement for timber suppliers in boreal and temperate conditions, only 10% of certified forests are located in the tropics; 2) There is still no consensus at the

international level and between stakeholders about the recognition of different schemes (ISO, FSC, etc.); 3) There is uncertainty about the size of the markets for certified timber; 4) The question of sharing the costs and benefits of certification between the stakeholders is unresolved; 5) Incompatibility or even conflict between national laws and certification standards can be a problem, and 6) Certification often fails to take into account other land uses, such as agriculture, which may have significant impacts on forests. And certification is not particularly effective in addressing the root causes of deforestation.

Some topics for further discussion on certification are the following: 1) How to link policy reforms with certification standards and how to ensure that certification is not in conflict with e.g. community forestry or tenure of local communities; 2) How to make sure that performance requirements are relevant and achievable in specific country conditions. 3) The role of forest certification in tackling illegal logging, corruption and other governance and compliance problems and 4) How to meet certification standards in a constrained financial environment.

A big challenge is to create mechanisms for effectively verifying the legality of wood production and denying access to the market of illegally sourced wood and wood products. Related concerns to be addressed include the financing of illegal operations and the laundering of proceeds from the illicit extraction of forest resources and trade in forest products. A further issue is the need for due diligence by financing institutions, public procurement and export credit agencies, as well as the promotion of the consumption of legally produced products.

In this regard, it is essential to have a series of rules which will deal with legality verification, customs enforcement, public procurement standards, financing matters and development, and cooperation assistance. Further studies are necessary to gain a better understanding of trade flows, links between illegal logging and investment and finance.

It would be useful to identify key producer countries (especially in post conflict situations) with which more immediate UNFF/FSC/ITTO partnership activities could be implemented on a pilot basis, including such issues as log tracking and CoC verification schemes, associated training and capacity building. This should include stronger partnerships between public administration and forest industries and the development of company-specific guidelines to prevent illicit extraction of forest

resources (Patosaari, 2004). There is also a need for effective implementation and enforcement of a functional legal system, weeding out corruption and increased transparency in business activities.

Forests and forest products should be used in support of economic growth in a sustainable manner, thus contributing to the overall development of the society as a whole. Also, policies that expand the capabilities of individuals and communities of forest dependent peoples to diversify their income base will be essential for long term sustainability. If the economies of poorer countries rise in coming decades, the trend towards increasing forest land should spread around the world, ultimately leading to a net global increase in woodlands. (Sample, 2006).

Illegal logging and trade in illegally harvested forest products have been eroding the resource bases of many countries and impacting on their socio-economic and ecological health. Internal conflicts and illegal harvesting of forest resources go hand in hand. Often, illegally harvested timber is exported to finance violent activities. Such crises are most often beyond the coping ability of national governments, and require intergovernmental support. There is thus a need for international mechanisms that ensure stability and compliance and that can assist in conflict prevention and management. Such mechanisms could be established through closer coordination of national policies at the international level or through the creation of an international entity to centralise efforts at the world level and avoid conflict situations and unsustainable practices.

Finally, to achieve security together with the three pillars of sustainable development (economic, social and environmental) requires new, more holistic thinking on the interaction and linkages between people and the natural resource base. Forests are deeply entwined with other sectors of society and their management requires coordinated efforts and inter-sectoral approaches. There is a need for a broader, more inclusive vision to create mechanisms that would allow interaction between various stakeholder groups and sectors that influence forests and the forest-dependent poor.

The principle of sustainable forest management, as a policy concept, should be an integral part of general policy instruments for social development, economic viability and environmental security.

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Acronyms:

ATIBD: Association Technique Internationale des Bois Tropicaux

CoC: Chain of Custody

DRC: Democratic Republic of Congo

ETFRN: European Tropical Forest Research Network

FAO: Food and Agriculture Organization of the UN

FLEG: Forest Law Enforcement and Governance

FSC: Forest Stewardship Council

IPCC: Intergovernmental Panel on Climate Change

ISO: International Organization of Standardization

ITTA: International Tropical Timber Agreement

ITTO: International Tropical Timber Organization

MDC: Magazine for Development and Cooperation

MDGs: Millennium Development Goals

MEA: Millennium Ecosystem Assessment

NIPF: Non-industrial Private Forest

PFE: Permanent Forest Estate

SFM: Sustainable Forest Management

UNFF: UN Forum on Forests

UNECE: UN Economic Commission on Europe

UNOCHA: UN Office for the Coordination of Humanitarian Affairs

UNSC: UN Security Council

WWF: World Wildlife Fund