

# **The Effectiveness of Moratoria**

## **A checklist for success**

**Commissioned by**

WWF Germany

19 March 2009

Publication number 1901

Aidenvironment

Donker Curtiusstraat 7-523

1051 JL Amsterdam

+ 31 (0)20 686 81 11

[info@aidenvironment.org](mailto:info@aidenvironment.org)

[www.aidenvironment.org](http://www.aidenvironment.org)



# The Effectiveness of Moratoria

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# Introduction

WWF Germany has asked Aidenvironment to perform a study on the effectiveness of moratoria as an instrument to halt tropical deforestation. The primary motive for this research is the call for a moratorium in Indonesia, a country severely affected by deforestation. Total deforestation in Indonesia over the period of 1990 to 2005 has been estimated at more than 20 million ha, with an annual average in the period of 2000-2005 of 1.4 million ha. In the past decade, the main large-scale economic drivers behind deforestation in Indonesia are land required for palm oil plantations, production of pulp for paper and timber. These activities are causing serious impacts on biodiversity, climate and local livelihoods. These problems not only relate to Indonesia, but extend to a worldwide context in which forest area is decreasing with about 13 million hectares per year, including 6 million hectares of primary forests. (FAO, 2005). These alarming numbers make the search for effective solutions even more evident. On the other hand we also see world wide an agricultural expansion and a continuously increasing demand for timber.

To temporarily prevent further damage and to allow for forest restoration, moratoria have become increasingly popular as a policy instrument. However, if more forests will be subjected to logging bans in favor of natural forest conservation, where will timber come from in the future and how will agricultural expansion take place? New supply sources are required, if there is no meaningful alternative to timber. Can forest plantations provide an alternative or will illegal logging increase, perhaps even more destructively and uncontrollable than in the past? Will the restriction on logging or deforestation for agricultural land use simply move the deforestation front to regions or countries that do not have such restrictions? What will be the socio-economic effects for forest-dependent sectors, communities and governments?

If certain preconditions are met, moratoria can be useful and powerful instruments. Based on the analysis of eight existing logging bans and moratoria, we have gained insight in the variables that determine the success of a moratorium. These variables make up a practical framework, a 'checklist', which will help WWF Germany to assess the chances of success of future moratoria. We conclude with a first, qualitative appreciation of the proposed moratorium in Indonesia. This appreciation should help WWF to delineate its position and role in the debate on the establishment of moratoria in Indonesia and will help to define further action.



# 1. A closer look at moratoria

To gain a clear understanding of what makes a moratorium successful, we analyzed eight case studies of logging bans/moratoria. After defining the concept of moratoria in more detail, we selected relevant moratoria or logging bans. In our analysis, we focused primarily on the effectiveness of the ban itself, the – negative – (indirect) impacts and their ultimate degree of success.

## 1.1 Moratorium as a concept

A moratorium can be defined as a (temporary) suspension of an ongoing activity. The term stems from Latin *morari* which means "to delay" and is generally used to refer to acts by national governments. A moratorium law is usually passed in some specific period of political or commercial stress; in the event that to do otherwise would do irreparable harm to the welfare of its citizenry. The focus of this study is on moratoria in the forest sector, i.e. logging moratoria or bans. A logging moratorium or ban (prohibition) is often<sup>1</sup> used as a policy instrument by government in response to environmental, socio-economic, political and other concerns and issues that threaten the forest and the resources within (Bugayong, 2006). Moratoria are always defined for a *specific time period* only and ultimately should be replaced by a public policy that will ensure the environmental protection formerly achieved by the moratorium.<sup>2</sup>

In response to rapid deforestation and forest degradation, a number of countries in Asia, Latin America and Africa have imposed partial or total bans on harvesting timber from natural forests. Ranging from a moratorium law for "zero-deforestation" in Paraguay, to "logging moratoria" in the Democratic Republic Congo and commodity moratoria such as the "soy moratorium" in Brazil, all these different types have in common the aim to preserve natural ecosystems (mainly natural forests).

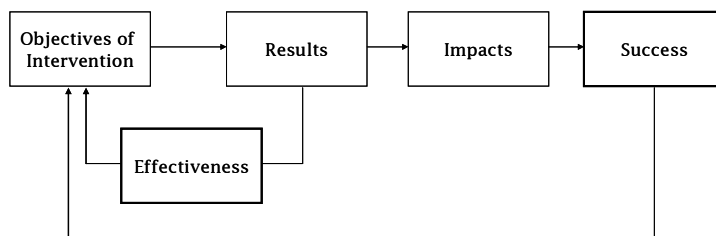
Moratoria are increasingly being promoted by environmental NGOs as an instrument to stop the rapid deforestation of tropical forests, in light of continuing mistrust and skepticism regarding the willingness of timber producers and agricultural land users to implement better management practices.

## 1.2 Indicators for success

We analyzed eight existing moratoria on their key characteristics (including period, area, initiator, motive, objectives), their effectiveness as a political instrument for the protection of the environment, their (indirect) and unexpected impacts and the contextual variables that determine success or failure (exhibit 1).

Effectiveness is defined here as the 'assessment of the achieved results in relation to the intended objectives'. Impact is defined 'as the wider consequences of the results, often beyond the initial scope of the intervention (moratorium)'. However, in practice it may turn out difficult to make a clear distinction between result and impact as this very much depends on the quality of the design (in particular how precise objectives have been defined) and the contextual complexity of the moratorium. In order to make this distinction as clear as possible, we focus on the evaluation of success of the moratoria as '*the final sum of the effectiveness and impacts*'.

### **Exhibit 1: Analytical framework effectiveness and impacts case studies**



Source: Aidenvironment

We examined in particular the variables that lead to success. So far, only FAO (2001) has made a comparative analysis of logging bans in Asia, focusing on implementation. Other organizations like the World Bank (Debroux et al., 2007) and WWF (WWF Paraguay, 2007) have also reported results on experiences with such measures, but a comprehensive analysis of the effectiveness and in particular the successfulness of moratoria in tropical forests has not yet been done.

Especially based on the lessons learned from FAO (2001) and WWF Paraguay (2007), we have derived a list of variables that seem to determine success. These variables are:

- mitigating (flanking) measures;
- monitoring systems;
- institutional strengthening;
- cooperation with stakeholders;
- communication strategy;
- integrated design.

Based on these experiences, we performed a comparative and qualitative case study research to explore the relation between success and the identified variables for success. However, it is important to acknowledge that the reason for success is not absolute, it also depends on context and timing of the moratoria.

### **1.3 Facing the facts – a comparison of case studies**

We selected cases from tropical regions that fit the definition. The case studies include:

- China
- Philippines
- Thailand
- Vietnam
- Sri Lanka
- Paraguay
- Brazil
- Democratic Republic of Congo (DRC).

The cases concern moratoria that were able to show results and that are well-documented. This means that for example the recent moratorium in Aceh is excluded, since it has been implemented recently (2007) and no results have been reported so far. We also did not include the moratorium in Cameroon; results are available, but information on implementation and design is very limited. Although the case studies are not exhaustive, we believe to have covered the most relevant worldwide experiences with logging bans and moratoria (exhibit 2). A detailed explanation of the case studies can be found in Appendix 1.



**Exhibit 2: Overview characteristics selected cases**

Country	Period	Area	Initiator	Motive
China	1998-present	Nation wide	Government	Deforestation and forest degradation
Philippines	1970-ongoing	All old growth forests	Government	Various environmental crises such as calamitous typhoons, and landslides, as well as unchecked deforestation
Thailand	1989- ongoing	Nation wide	Government, but under public pressure from NGOs	Floodings
Vietnam	Early 1990s-ongoing	Nation wide	Government	Deforestation and forest degradation
Sri Lanka	1989- ongoing	Nation wide	Government, but under public pressure from NGOs	Response to evaluation by the World Bank and IUCN of the 1986 Forest Management Plan (FMP)
Paraguay	2004-2013	Upper Parana Atlantic Forest (UPAF)	Government and civil society (through Social Pact)	Alarming deforestation rate
Brazil	2004-2009	Amazon Biome	Private sector and civil society	Rapid conversion of Amazon for soy production, causing environmental deterioration (following the Greenpeace publication "Eating up the Amazon")
DRC	2002- ongoing	Old growth forests	World Bank and government	Illegal logging, bad governance

Source: Aidenvironment

**1.3.1 Effectiveness**

Most cases are (relatively) effective with respect to a decrease in forest exploitation – the primary result of the moratoria (exhibit 3). It often implies a relative decrease in logging as natural reserves are established, fewer new concessions are issued, and sometimes logging contracts and concessions are revoked. However, as we will show in the next paragraphs, it is not appropriate to speak of success.

**1.3.2 Impacts**

As argued above, effectiveness (i.e. (partly) achieving predefined objectives) does not necessarily imply successful moratoria. The implementation of most moratoria has brought about various negative impacts that were mostly unintended and ultimately backfired on the overall success of a moratorium. Moratoria can lead to illegal logging, a critical forest industry (and other timber dependant industries like furniture and construction), increased unemployment and poverty, local conflicts, corruption, increased prices, loss of government revenues, decrease of domestic timber supply and ultimately increased import spurring deforestation elsewhere (exhibit 3).

**1.3.3 Success**

Success can be seen as the sum of the effectiveness of a moratorium and the impacts it has brought about. In most cases, success has been relatively limited, due to the various negative

impacts. In addition, most cases show that the government takes the decision to install a moratorium, often only after civil society pressure and/or a crisis (flooding, landslides, etc.). This may have been of influence on the success of the moratoria.

The less successful moratoria have been in place for a decade or even decades. A moratorium should however be implemented as a temporary measure. Moreover, it is likely that the contextual dynamics for which the moratorium was designed change over time. Consequently, the moratorium may lose momentum and relevance. In the early 1970s, when the Philippines imposed the first moratorium, the understanding of the complex nature of causes and effects regarding conservation was not as progressed as today. The moratoria that have been implemented only recently (Paraguay, Brazil) benefit from improved understanding.

Finally, the success of the moratoria in Brazil and Paraguay can be related to their restricted geographical coverage, which makes it relatively easier to control than a nation-wide moratorium.

In exhibit 3, we summarize and value our findings on effectiveness, impacts and success for each of the cases. Here, we follow our analytical framework in which we assess effectiveness in relation to the objectives and impact as the wider consequences of the results. It should be mentioned that this valuation is based on a qualitative appreciation of the cases. This means that our final valuation of success follows our overall judgment of the case studies and not a simple summation of effectiveness and impacts.

**Exhibit 3: Success case studies**

<b>Country</b>	<b>Objectives</b>	<b>Results: Effectiveness</b>	<b>Impacts</b>	<b>Success</b>
China	<ul style="list-style-type: none"> <li>To reduce natural forest timber production from 32 million m<sup>3</sup> in 1997 to 12 million m<sup>3</sup> in 2003</li> <li>To conserve 41.8 million ha of natural forests</li> <li>To establish 21.3 million ha of timber plantations between 2000 and 2005.</li> </ul>	<ul style="list-style-type: none"> <li>+ Timber output reduced</li> <li>+ Selective logging is replacing large scale clear cutting</li> <li>+ Nature reserves established</li> <li>- Lag in development timber substitutes</li> </ul> <p><i>Valuation: +/-</i></p>	<ul style="list-style-type: none"> <li>- Limited redeployment</li> <li>- Increase unemployment</li> <li>- Continued over-log natural forests</li> </ul> <p><i>Valuation: -</i></p>	<p>Targets have not been met, mainly due to lack of mitigating measures and economic development</p> <p><i>Valuation: +/-</i></p>
Philippines	<ul style="list-style-type: none"> <li>Primary objective is to preserve and protect the remaining natural forests</li> </ul>	<ul style="list-style-type: none"> <li>+ 70% of provinces under logging ban</li> <li>+ Reduction timber license agreements</li> <li>+ Reduction annual allowable cut</li> <li>+ All resulted in decrease exploitation</li> </ul> <p><i>Valuation: +</i></p>	<ul style="list-style-type: none"> <li>- Increase unemployment</li> <li>- Critical state forest industry</li> <li>- Increase illegal logging</li> <li>- Reduced domestic supply</li> <li>- Increased prices</li> <li>- Loss of government revenues</li> </ul> <p><i>Valuation: --</i></p>	<p>Effectiveness seems positive, but negative impacts are severe.</p> <p><i>Valuation: -</i></p>
Thailand	<ul style="list-style-type: none"> <li>Protection and rehabilitation of natural forests</li> <li>Improvement of degraded land and productive land</li> <li>Securing livelihoods of forest dependent people</li> <li>Conservation of soil and water resources</li> </ul>	<ul style="list-style-type: none"> <li>+ Logging contracts and concessions revoked</li> <li>+ New concessions dismissed</li> <li>+ Nature reserves established</li> </ul> <p><i>Valuation: +/-</i></p>	<ul style="list-style-type: none"> <li>- Increase unemployment</li> <li>- Decrease revenues forest industry</li> <li>- Increase imports (leading to deforestation in Cambodia).</li> <li>- Increase prices</li> <li>- Increase illegal logging</li> <li>- Relocation of people leading to conflicts</li> </ul> <p><i>Valuation: --</i></p>	<p>Results are only partly positive (objectives have not been met) and negative impacts are severe.</p> <p><i>Valuation: --</i></p>
Vietnam	<ul style="list-style-type: none"> <li>Long-term improvement of the wood production capacity</li> <li>Protection of 9 million ha of forest</li> <li>Reforestation of 5 million ha</li> <li>To create employment for 20 million farmers</li> </ul>	<ul style="list-style-type: none"> <li>+ Forest cover increase of 1.5% annually</li> <li>- Limited budget to create employment</li> </ul>	<ul style="list-style-type: none"> <li>+ Increase unemployment</li> <li>+ Deficit wood supply</li> <li>+ Increased prices</li> </ul>	<p>Forest cover has increased, but employment has not been created and negative impacts.</p> <p><i>Valuation: +/-</i></p>

Country	Objectives	Results: Effectiveness	Impacts	Success
		<i>Valuation: +/-</i>	<i>Valuation: -</i>	
Sri Lanka	<ul style="list-style-type: none"> <li>Prevention of degradation and loss of natural forest cover</li> <li>Rehabilitation of degraded forests</li> <li>Protection of biodiversity</li> <li>Maintenance of forest functions and values</li> </ul>	<p>+ Increase of non-forest timber supply</p> <p><i>Valuation: +/-</i></p>	<ul style="list-style-type: none"> <li>Increase unemployment</li> <li>Loss of government revenues</li> <li>Increase prices</li> <li>Increase imports (although slightly)</li> <li>Continued small-scale illegal logging</li> </ul> <p><i>Valuation: -</i></p>	<p>Although it led to some results, the overall success was very limited.</p> <p><i>Valuation: -</i></p>
Paraguay	<ul style="list-style-type: none"> <li>Implementation of the Forest Conservation Moratorium (FCM)</li> <li>Implementation monitoring strategy</li> <li>Provision economic alternatives</li> <li>Implementation communication campaign</li> </ul>	<p>+ Reduction deforestation rate between 90-95%</p> <p>+ Monitoring system established</p> <p>+ Economic alternatives included in new Law 3001.</p> <p>+ Communication campaign enacted and successful</p> <p>- Despite Law 3001, clear strategies for implementation are lacking. But moratorium stays in place until legislation and sustainable resource management are in place</p> <p><i>Valuation: +</i></p>	<p>- Increased deforestation outside the Upper Parana Atlantic Forest (UPAF)</p> <p><i>*Valuation: +/-</i></p>	<p>Objectives were met effectively are largely met and negative impacts (relatively) limited.</p> <p><i>Valuation: +</i></p>
Brazil	<ul style="list-style-type: none"> <li>Develop strategies for soy producers to comply with the Brazilian Forest Code</li> <li>Implement mapping and monitoring system</li> <li>Refine institutional relations and legislation to improve controls over deforestation and development of soy production</li> </ul>	<p>+ No new soy plantations in areas under the moratorium</p> <p>+ Monitoring system implemented</p> <p>+ Moratorium in place until institutional relations and legislation are refined</p> <p><i>Valuation: +</i></p>	<p>- Soy continues to be an indirect driver of deforestation inside and outside the Amazon Biome</p> <p><i>*Valuation: +/-</i></p>	<p>Objectives are largely met and negative impacts (relatively) limited.</p> <p><i>Valuation: +</i></p>

<b>Country</b>	<b>Objectives</b>	<b>Results: Effectiveness</b>	<b>Impacts</b>	<b>Success</b>
DRC	<ul style="list-style-type: none"> <li>Develop legislation for protected area management, halt illegal logging</li> </ul>	+ Reduction of area under concession - But new concessions granted as well - Moratorium was bypassed in several ways  <i>Valuation: -</i>	- Continued illegal logging - Continued corruption and bad governance  <i>Valuation: -</i>	Results are limited and illegal logging and corruption continues.  <i>Valuation: -</i>

\*We value the impacts of the moratoria in Paraguay and Brazil as +/- (instead of -), because the negative impacts of these moratoria are limited compared to the other case studies.

Source: Aidenvironment



### 1.3.4 Presence of success variables

Based on lessons learned from previous studies and our valuation of the cases, we derived six success variables: mitigating measures, monitoring systems, institutional strengthening, cooperation with stakeholders, communication strategy, and integrated design.

Here we assess the relation between success and the identified variables for success. In exhibit 4 a score between ++ and -- is given to each of the moratoria to valuate to what extent the success variables have been present in the case studies, ranging from highly positive (the variable has been present and effectively implemented) to highly negative (the variable has not been part of the moratorium). A score of +/- indicates that the variable has been partly present.

**Exhibit 4: Relationship between success variables and effectiveness**

Case	Success variables						
	Success	1. Mitigating measures	2. Monitoring systems	3. Institutional strengthening	4. Cooperation stakeholders	5. Communication strategy	6. Integrated design
China	+/-	+/-	-	-	--	--	+/-
Philippines	-	--	--	--	--	--	--
Thailand	--	--	--	--	--	--	--
Vietnam	+/-	+/-	--	--	--	--	--
Sri Lanka	-	+/-	--	--	-	--	-
Paraguay	+	+	+	+/-	+	++	+/-
Brazil	+	-	+	+/-	+	+/-	-
DRC	-	--	--	--	--	--	--

Source: Aidenvironment

Case	Success variables						
	Success	1. Mitigating measures	2. Monitoring systems	3. Institutional strengthening	4. Cooperation stakeholders	5. Communication strategy	6. Integrated design
China	+/-	+/-	-	-	--	--	+/-
Philippines	-	--	--	--	--	--	--
Thailand	--	--	--	--	--	--	--
Vietnam	+/-	+/-	--	--	--	--	--
Sri Lanka	-	+/-	--	--	-	--	-
Paraguay	+	+	+	+/-	+	++	+/-
Brazil	+	-	+	+/-	+	+/-	-
DRC	-	--	--	--	--	--	--

As can be seen, the presence of success variables translates into the success of the moratoria. For example, the cases of Paraguay and Brazil show positive scores on nearly all success variables, whereas the cases in Asia and the case of DRC have scored negatively on all variables and were not

successful. The political situation, and consequent lack of democracy and institutional capacity, made it impossible to design and implement a successful moratorium.

It can be concluded that the success of a moratorium is mainly due to the incorporation of measures to mitigate negative impacts. The cases of Paraguay and Brazil have been most successful due to the (partial) presence of success variables, especially the mitigating measures. Although these measures and an integrated approach are limited in Brazil and both cases require improvement in the majority of mitigating measures, these cases come closest to their objectives. While negative indirect impacts do occur (mainly shifting the problem of deforestation due to expansion of soy production to other regions), it should be acknowledged that these moratoria are only recently implemented and the complexity of the situation requires more time to significantly reduce and manage these impacts.

In general the nation wide logging bans in Asia, especially Thailand and the Philippines, have not been successful because of a lack of mitigating measures. China, Vietnam and Sri Lanka made an attempt to mitigate impacts and/or design logging bans as part of an integrated approach, but these attempts have been limited. In this line of thought, one might argue that the more effectively a moratorium is being implemented (in terms of halting deforestation), the more impacts it creates, if the relevant mitigating measures are not included.

This also brings about the essential question if a moratorium can be an effective policy instrument on a global scale. There is no overarching answer. However, taking into consideration that the demand for timber is still increasing and agricultural expansion continues, a moratorium might easily lead to shifting of logging elsewhere. It is not a zero sum game. Moratoria may lead to deforestation in even more vulnerable areas and in an even more uncontrolled manner.



## 2. Assessment of future moratoria

Each proposal for a moratorium should be assessed within its own context. However, analysing the presence of the basic variables for success in the plans is an essential aspect. Based on the assessment of the eight cases, we have developed a practical checklist that allows WWF to focus on the most important variables and the way in which they can be applied.

### 2.1 Identify critical variables for success

When determining whether or not a proposed moratorium should be implemented, it will be helpful to closely examine the proposal and look for the extent in which the critical variables for success are present. The eight moratoria that were subject of our study indicate that although the relative importance of the individual variables can differ, their contribution to the ultimate success is essential.

#### 2.1.1 Mitigating measures

Closing access to forests may bring about indirect and negative impacts, varying from job and income loss to a serious decrease in timber supply for wood dependent sectors and increasing prices. Maybe even more important is to consider that a moratorium will also set boundaries to agricultural expansion. All these impacts could lead to various social problems, conflicts, corruption, increase in illegal logging and the import of timber from elsewhere.

To mitigate these impacts, it is crucial to understand the (combination of) drivers of deforestation. Is timber used for the internal market (fuel, furniture and construction), for domestic use, for export or is deforestation a consequence of agricultural expansion (palm oil, soy, vegetables, cattle, etc.)? Although some groups may benefit from a moratorium, others will be affected in their income and the way they will respond depends on the alternatives at hand. In all cases, if there are no mitigating measures in place, a moratorium may create unintended side effects that may jeopardize its effectiveness and eventually its success.

Compensation programs and the provision of economic alternatives are important to reduce such conflicts. Initiatives with the objective of compensating rural producers for environmental services are needed to stimulate good practices and guarantee the economic and environmental sustainability of their activities. This entails establishment of compensatory payment mechanisms and redeployment of displaced workers on the one hand and reforestation/regeneration and alternative timber supply on the other hand. Alternatively, the costs of forest management improvements could potentially also be borne by end consumers, for example via sustainability forest management certificates.

In the case of Paraguay, various economic alternatives were provided and legalized through an environmental service law. This is the only moratorium amongst the cases that actually captures economic alternatives through national legislation. Reforestation was however not part of the moratorium.

With the logging ban in Vietnam, the government took measures including forest protection, reforestation as well as redeployment. Unfortunately, insufficient financial and political means hampered success of the logging ban. Moreover, the country realized an impressive economic growth that put an extra pressure on forest area.

China made an attempt to mitigate the impacts from the logging ban through funds for redeployment and increasing numbers of plantations and nature reserves. Rapid pace of economic development however still resulted in over-logging of natural forests.

Although illegal logging still occurred on a small scale, Sri Lanka increased its non-forest wood resources which are now a major source of timber. This decreased the pressure on natural State forests significantly.

In the case of Brazil, measures to mitigate impacts were not directly connected to the moratorium. The approach was to stop deforestation with the moratorium through improvement of government and involvement of private sector by addressing soy expansion as deforestation's most important driver<sup>3</sup>. In the Philippines, Thailand and the DRC, mitigation of impacts have not been considered as part of the moratoria.

### **2.1.2 Monitoring systems**

Conservation and protection goals must be made explicit and translated into measurable and realistic terms. Without effective monitoring, it is impossible to determine whether the goals have been accomplished. Most of the cases showed available statistics on the size of forest areas protected, but these figures do not show actual success of protection, such as forest health and stand restoration. Moreover, illegal logging still occurs in most of the cases and/or deforestation is pushed to regions outside the boundaries of the moratorium or to other countries.

Therefore, the method of monitoring is considered important as well. This means that apart from monitoring actual deforestation rates and comparing these rates to an appropriate 'base line' (through for example satellite imagery), monitoring in the field is essential as well in order to 'catch' deforesters in action (e.g. through participatory monitoring involving local communities and NGOs with field presence). For monitoring to be effective it needs to be institutionally embedded. It requires clear procedures on how to feedback and follow up. Monitoring also requires sufficient capacity. Ideally, a monitoring system would also look into the effectiveness of a moratorium's mitigating measures.

In Paraguay, deforestation violations are monitored via satellite imagery on a monthly basis and this information is relayed to the Environmental Prosecutor. The monitoring system provided dependable land mapping and forest monitoring and facilitated the ability to locate landowners and identify the percentage of native forest on their land.

Also in Brazil, a mapping and monitoring system using cartographic material has been implemented. After two years of the moratorium's implementation, it is stressed however that it is urgently needed to create a proper base line map of the Amazon Biome for monitoring the area's rural properties, including all areas with potentially high biodiversity. In addition, the monitoring system should include a methodology that assures that production originating in deforested areas will not be traded by the companies participating in the moratorium. Production monitoring is essential in this type of moratorium.

In China, monitoring natural forest protection by grassroots units is stressed, but no actual measures or monitoring system have been developed. In the Philippines, Thailand, Vietnam and the DRC lack of appropriate monitoring systems directly linked to the moratorium has been one of the major pitfalls of the logging bans. In Sri Lanka, aspects related to monitoring have not been mentioned in the documentation.

### **2.1.3 Institutional strengthening**

The successful implementation of a moratorium involves implementing and enforcing new policies, rules and institutional changes which require both sufficient institutional capacity and financial resources. Furthermore, new management strategies, plans, and operational activities must be undertaken on a long-term basis to achieve and maintain the desired resource conditions and assure continuing public benefits (FAO, 2001). In the process of strengthening government entities and efficient implementation of moratoria, it is recognized that decentralization of national government is often necessary to achieve law enforcement at local and regional level (WWF Paraguay, 2007). Centralized management of natural forest often results in “top-down” decision-making that can easily ignore or misrepresent the legitimate interests and concerns of individuals and local communities dependent on forests (FAO, 2001). Moreover, and simultaneously to institutional strengthening of government, the organization and strengthening of civil society is considered crucial to provide countervailing power to demand transparency and participation.

In each of the case studies, lack of institutional capacity to enforce the moratoria and/or centralized decision making seem to have limited the success of the moratoria. With a few exceptions, forests in the case studies are owned by the states, and national governments exercise the rights of use and management.

In China, a lack of funds for redeployment and maintaining nature reserves were identified amongst the primary limitations. Instability, uncertainty and low investment in forest protection has resulted from many changes in government policies and subsequently ineffective law enforcement in the Philippines. Lack of clear policy and institutional capacity also hindered implementation of the logging bans in Thailand and Vietnam. In each of these three countries, decentralization of forest management has not been considered while implementing the logging bans.

In the case of Sri Lanka, timber extraction is monopolized by the STC which has facilitated implementation of the logging ban. Still, decision making is centralized and special legislation and/or law enforcement has not been part of the moratorium. This seems to have been one of the main causes of continued illegal logging.

In both Paraguay and Brazil NGOs played an important role in the identification and prioritization of these issues. WWF in Paraguay concentrated on strengthening capacity in order to establish more consistent government processes and execute government laws more efficiently. One of the objectives of the Social Pact was to promote decentralization in order to increase capacity at the local level. However, this has been difficult to realize. Many landowners are still not in compliance with several forest laws due to the government’s lack of capacity to address these issues. Also in Brazil, it is not clear to which extent such objectives have been reached.

The DRC is a special case. After decades of war and mismanagement, the economy is recovering and the state is gradually rebuilding. However, public administration still suffers from corruption. Although an independent observer was appointed to assure fairness and transparency, the political situation in post-conflict DRC hindered the implementation of the moratorium.

### **2.1.4 Cooperation with stakeholders**

With a few exceptions, the moratoria or temporary logging bans in the case studies were called upon by governments that from thereon often monopolized further decision-making. A forest conversion moratorium limits the legal use of natural resources and if such a policy is to be implemented successfully, cooperation with stakeholders to establish agreements on the most adequate and sustainable forms of utilizing natural resources is an important variable (WWF Paraguay, 2007).

Although most moratoria were called upon by national governments, the majority was implemented following pressure from civil society or international organizations. These and other local stakeholders can play a crucial role in the success or failure of a moratorium. Their participation (and expectations) should be well managed: when and how to involve them; who are the (relevant) stakeholders; what are their interests, position and role? Some may play a facilitating role, others may take a more distant (monitoring) position to look after specific interests (e.g. related to the mitigation) and/or the transparency of the process. Some stakeholders however, do not want to be engaged or are even against a moratorium. If a social pact is created as in the Paraguay case, this may lead to strategies that 'neutralise' the impact of countervailing forces and/or include these actors in a positive way.

Participation in forest planning, policy development and implementation can reduce corruption and provide new perspectives and understandings to both decision-makers and forest users (FAO, 2001). In addition, close cooperation with local people and communities is important. Where customary and traditional land use rights are threatened, or rural households are excluded from commercial opportunities, livelihoods are at risk and government plans may face opposition. On the other hand, where participation is effective, local dependencies on forests can be better understood and recognized in strategic planning. Active involvement of local people in development and conservation efforts also helps to alleviate concerns about employment and income generation (FAO, 2001).

The moratorium of Paraguay has proven to be a successful collaboration between various governmental and non-governmental organizations. This social platform encouraged an open dialogue among all stakeholders that agreed upon social, economic, and environmental initiatives. Stakeholder involvement in Paraguay is however limited to governmental institutions and NGOs. It is acknowledged that participation of the private sector is still lacking.<sup>4</sup>

This has been different in Brazil, where the moratorium has been called upon by the private sector and civil society. Both sectors committed to work with Brazilian government entities, and entities representing rural producers and society to achieve the goals defined under the moratorium.

In China, the Philippines, Thailand and Vietnam, stakeholder involvement has been very limited and participatory approaches have been neglected. In Thailand for example, local communities and individuals strongly resisted development of large-scale industrial plantations for fear of loss of land and resources for local use. Also in Sri Lanka, the logging ban was imposed by the government, following pressure from NGOs and international institutions. Here it has been acknowledged that the ban should be in place until management plans are developed through local participation.

Due to the post-conflict situation in the DRC, stakeholder involvement and participatory approaches are not an easy task for a country with little experience with democratic mechanisms at either national or local level.

#### **2.1.5 Communication strategy**

The consequent lack of public awareness about the importance of forest resources often contributes to their destruction. Public awareness of the importance and benefits of natural forest conservation is therefore necessary to successfully implement a moratorium.

By emphasizing public awareness and education on the environment, the need for a moratorium or logging ban can be made a popular issue and avoid confusion and conflicts (WWF Paraguay, 2007).

In addition, favorable public awareness and support can draw funds for implementation (FAO, 2001).

Amongst the case studies, the Forest Conservation Moratorium (FCM) in Paraguay is the only moratorium that included the implementation of a communications campaign. Several tools (such as TV and radio spots) were utilized to raise awareness about conservation and to start an education process. This resulted for example in volunteers collecting over 2,000 signatures that were presented to the Paraguayan National Congress to demonstrate public support for the extension of the FCM law (WWF Paraguay, 2007).

In addition to Paraguay, development of strategies to encourage soy producers to comply with the Brazilian Forest Code was included amongst the objectives of the Amazon moratorium. The GTS working group established a sub-group "Education, Information and Forest Code" that developed an educational and awareness booklet for producers, teaching entities and other parties interested in the moratorium. Increased public support of the moratorium was however not demonstrated (GTS Soy Bean Working Group, 2007).

### **2.1.6 Design of moratoria as part of an integrated approach**

Important differences exist between partial policy changes (such as logging bans) and more systematic and comprehensive approaches, such as moratoria. Bans born from crises, such as floods and landslides in Thailand and the Philippines, tend to be incremental, action-oriented steps that focus on consequences and do not deal with the system's underlying problems in an integrative way. The moratorium in DRC was called upon to address the causes of forest mismanagement and bad governance, but failed to address the root causes of bad governance.

If properly formulated and implemented, logging bans *can* contribute to environmental protection of forests, but logging bans are simply one policy instrument in the spectrum of policies, each with their own positive and negative impacts. For example, the logging ban in China was implemented after serious flooding, but the NFCP is comprehensive and addresses multiple facets of the underlying causes, including recognition of likely adverse impacts. Likewise, the moratorium in Paraguay included policies to tackle corruption, to provide economic alternatives and to promote cooperation, rather than merely a temporary prohibition.

In most moratoria and logging ban decisions, the effects on domestic timber supply and limiting agricultural expansion are large and thus help realize objectives of forest protection and nature conservation. However, timber demand remains high and may be met by timber derived from plantations as well as increasing imports. The latter option is one of explicitly shifting the problem to other regions, and cannot be characterized as sustainable. Clearly this trade-off of the impacts of timber production to other regions should be avoided. The same logic can be applied to the agricultural expansion. Unfortunately, none of the moratoria studied above has sufficiently directed attention to these ((inter)national) implications, for instance by efforts on reducing demand.

## **2.2 Apply checklist**

The analysis of case studies provided valuable insights into the successfulness of moratoria. The complexity surrounding the exploitation of natural forests suggests that solutions must be context-specific and based on a comprehensive understanding of the situation. But even then, the desired outcomes from a moratorium cannot be predicted (FAO, 2001).

We recommend using a checklist when assessing the design of a moratorium. With the checklist, experts in the field should be able to provide a first insight into the moratorium's feasibility before undertaking detailed studies. The checklist can also be used as a rapid evaluation tool to assess the design of existing moratoria (exhibit 5).

Steps 1 and 2 should simultaneously and interactively lead to an adequate design of the moratorium. This design should be more than a set of rules with incentives and sanctions attached. It should also include mitigating measures. Although rules should be clear and enforceable, room for adaptation must be present. The implementation of a moratorium has to be accompanied with plans for institutional strengthening and decentralization, a communication strategy and a monitoring system. The monitoring element is of special importance as this should generate the crucial management information, not only on the course of the moratorium, but also on the institutional development and communication strategy.

**Exhibit 5: Checklist to assess moratoria**

<b>Checklist Feasibility and Success of Moratorium</b>
<p>➔ 1. The design should be based on a thorough <i>problem analysis</i> that includes the identification of drivers of deforestation as well as an assessment of its social, economic and environmental impacts, including the consequences of a moratorium in comparison to other policy instruments. In doing so, important lessons can be learned from other case studies.</p> <p>A proper problem analysis should lead towards the definition and integration of <i>mitigating measures</i> to limit undesired and indirect impacts of the moratorium. These mitigating measures should include: economic alternatives, alternative supplies, reforestation and forest conservation measures. The problem analysis is necessary to understand the broader context of a moratorium before implementation. If this is not part of the design, indirect impacts on wider levels are inevitable.</p>
<p><i>Problem analysis:</i></p> <ul style="list-style-type: none"> <li>• Drivers of deforestation</li> <li>• Assessment of social, economic and environmental impacts</li> <li>• Relation to other policy instruments and expected results and impacts</li> <li>• Definition of mitigating measures</li> <li>• Variables outside of the stakeholders' control, but with potential disruption effects (war, coups, natural disasters, oil price, credit crunch, etc.)</li> </ul>

→ 2. The effectiveness of a moratorium highly depends on the acceptance of involved stakeholders. A *stakeholder analysis* should therefore identify relevant actors, their interests and relative position, role and capacities within the context of the moratorium. Through *stakeholder involvement and participation* a common vision on and an explicit commitment with the moratorium should be established. We emphasize the need to involve stakeholders of all sectors of society i.e. public, private and civil society sectors. Content, when, how and to what extent stakeholders participate during the design and implementation should be carefully planned and formalized. Ideally, the most important stakeholders should be involved in the problem analysis and moratorium design. Moreover, a moratorium is a 'time-out' measure to stop deforestation in search of alternatives. This should not only be explicitly stated, but also should be defined how the involved actors envision the process once the moratorium has expired.

*Stakeholder analysis:*

- Identification of interests, position, role and capacities
- Plan for stakeholder dialogue and engagement
- Create common vision and explicit commitment

→ 3. The moratorium should be accompanied by a plan for *capacity strengthening of government bodies*. If decentralization is foreseen, special attention to local government institutions is required. However, the plan should not only focus on government(s), but also on NGOs and local communities based on the stakeholders' roles and capacities identified in the stakeholder analysis.

*Plan for institutional strengthening and decentralization:*

- Capacity analysis of what is present and what is needed
- Definition and development of capacity building activities

→ 4. A *monitoring system* is elementary to determine compliance, supposing that the goals of the moratorium are defined in a SMART way.<sup>5</sup> A monitoring system should thus be established that monitors predefined and clear goals (through for example satellite imagery) as well as field and production monitoring. Ideally, a monitoring system should also involve the effectiveness of a moratorium's mitigating measures (i.e. indirect impacts). The necessary monitoring capacity should be in place and ideally local actors participate in the monitoring activities. Finally, the monitoring system should be embedded within the institutional context with clear procedures on reporting, follow up activities as well as feedback on the actual design, eventually allowing adaptation in structure and/or activities.

*Monitoring system:*

- Monitoring SMART-defined goals of the moratorium
- Including field and production monitoring
- Including indirect impacts
- Monitoring capacity developed and in place
- Local involvement
- Monitoring system embedded in institutional context

→ 5. The implementation of the moratorium should not only be supported by the ones directly affected, but also needs to be accompanied by a *communication strategy* to create awareness and obtain support from the wider society. Communicating the goals of the moratorium and the importance of sustainable natural resource use is essential and avoids confusion and conflicts. In addition, monitoring information about (lack of) progress of the moratorium is crucial to maintain public support. Moreover, public awareness and support will provide an extra hurdle for stakeholders to skirt around the moratorium.

*Communication strategy:*

- Create awareness and obtain support
- Communicate goals of the moratorium
- Link with monitor results
- Environmental education

As argued previously, the more effective a moratorium is implemented (in terms of restricting deforestation), the more impacts it will create. Therefore, identifying the potential indirect effects is crucial to the overall success of a moratorium. We believe that most important general variables have been covered. Without stakeholder involvement a moratorium cannot be implemented effectively. Without a monitoring structure no success or failure can be claimed and communicated, etc. However, it all boils down to a comprehensive design of a moratorium. The design of a moratorium can be seen as an overarching factor, determining the process of implementation and is consequently critical to the success of the moratorium. It sets the scene how the other success variables will be tackled and brought into play. Therefore, we recommend WWF to engage in the discussion at an early stage, preferably in the design phase.

Finally, we stress the conclusion made by FAO (2001) that moratoria should be seen as a “time-out” strategy in order to establish long-term sustainable forest management strategies and to allow degraded forest to recover. If moratoria are not seen as a first step towards developing long-term solutions, as was the case in most of the Asia experiences, moratoria are likely to fail and/or cause wide ranging negative impacts. We believe that the process of developing sustainable solutions after this time-out should be explicitly part of the design of any moratorium.



### **3. First appreciation of planned moratorium in Indonesia**

Indonesia is experiencing one of the highest rates of tropical forest loss in the world. Between 1990 and 2005, Indonesia's primary forest cover fell from 70 million ha to 49 million ha. Currently, deforestation rates have increased to an average of 1.4 million hectares annually (FAO 2005). Most at risk are Indonesia's lowland tropical forests. These forests have almost entirely disappeared in the islands of Sulawesi and Sumatra and are predicted to have disappeared in Kalimantan by 2012 if current trends continue (FWI/GFW, 2002)

The deforestation trends in Indonesia are well researched and documented. Scientists and NGOs agree that the main drivers for deforestation in Indonesia are logging and conversion. Forest clearance by small scale farmers (slash-and-burn agriculture) is a significant but not dominant cause for deforestation. There are no accurate data available, but it is estimated that shifting cultivators are responsible for about 20% of forest loss (FWI/GFW, 2002). Deforestation is mainly caused by logging to serve the domestic and international demand for timber and pulp and paper, and the conversion of forested areas for large scale land use developments, such as estate crops (oil palm driven by world demand for edible oils and biofuels, etc), industrial tree plantations (plywood, pulp and paper) and mineral mining operations (coal, gold, silver, copper, etc). Nearly 7 million hectares of forests have been approved for estate crop development (oil palm); 9 million hectares have been allocated for industrial plantations and nearly 51 million hectares are granted as concession rights to logging companies (Probos, 2004). Due to a lack of legal resources, a large part of Indonesia's timber plywood, pulp and paper sources stem from illegal sources (approx 10 mln ha). Deforestation is worsened by deliberate fire-setting as a cheap and easy means of clearing forest for further planting, which can result in uncontrolled wildfires. More than 5 million ha of forest burned in 1994 and another 4.6 million ha burned in 1997-98.

The state of the forests has alarmed government and non government agencies repeatedly. Logging bans and deforestation moratoria have been called upon several times since the mid 1990s. As part of a Structural Adjustment Program (SAP) IMF and the World Bank enforced reforms of the forest management policies already in 1998, focusing on forest concessions run by large Indonesian conglomerates (CIFOR, 2001). More recently, in 2007 the Indonesian NGO WALHI (Friends of the Earth Indonesia) re-called for a moratorium on deforestation in reaction to the failed 2001 policy reforms, and in 2008 Greenpeace and Unilever called for a moratorium on Forest Conversion for Oil Palm Plantations.

In this chapter, we provide a qualitative appreciation if the necessary conditions are in place for a potential moratorium in Indonesia, based on a quick scan of available data and involving our expertise on the ground. This qualitative appreciation also reflects upon the most likely economic, social and environmental impacts of a moratorium and provides WWF with several elementary issues for debate.

#### **3.1 Addressing the problem**

The 2001 forest management reforms enforced by the IMF and the World Bank in their Structural Adjustment Program, largely focused on logging in natural forest areas<sup>6</sup>.

The reform process was actually enacted in 2001 (Presidential Decree No. 80/2000) and included:

- a moratorium on the conversion of natural forests;
- closure of debt-laden industries;
- elimination of illegal forest logging;
- restructuring of timber processing industries;
- recalculation of the value of forest resources;
- linkage of reforestation programs with industrial capacity;
- decentralization of forestry administration;
- formation of a national forestry program;
- tackling forest fires;
- restructuring tenure rights;
- taking inventory of forest resources;
- improvement of the forest management system.

Although these policy reform recommendations seem inclusive, the major flaw of the strategies these two agencies (i.e. the World Bank and IMF) adopted was that by the late 1990s logging outside concessions and land clearing for agriculture had become the main driver of forest destruction. Hence, focusing on concessions dealt with only a limited piece of the problem.

WALHI calls for a moratorium on logging as a 15-year cessation of logging and forest conversion activities, in order to formulate:

- a protocol for conflict resolution;
- a standard for ecological service in plantations;
- a concept for a community forest system as the standard policy for forests in Indonesia.

WALHI's call is based on the SAP forestry reforms described above, and factually recalling for the failed 2001 policy reforms. In addition, WALHI expands the 2001 moratoria with the plantation sector, targeting the drivers of deforestation more inclusively.

Greenpeace's call for a moratorium is solely focused on conversion of forests and forested areas for the establishment of oil palm plantations:

"The moratorium applies to all areas covered by permits and rights to establish oil palm plantations held by a company, association or individual, and to oil palm producers processing oil palm products. [The moratorium is to be implemented on] vegetation clearance; burning, drainage and road building; plantation expansion activities where indigenous communities have not given their free, prior and informed consent to the development. The moratorium is maintained until independent third-party assessments verify compliance with the following criteria:

- Oil palm Management Unit complies with all national and local laws, and administrative requirements relating to their permit or rights to establish oil palm.
- Oil palm Management Unit maintains forests and protects High Conservation Values
- Oil palm Management Unit maintains soil carbon.
- Oil palm Management Unit respects the rights of indigenous communities that will be affected by plantation expansion.
- Palm oil producers establish supply chain traceability and segregation systems, including third party verification and monitoring that ensure only palm oil from Management Units that have met these criteria enters the supply chain." (Greenpeace, 2008)

The Greenpeace Moratorium is targeting the driver of conversion by oil palm plantation development. This limited scope may increase effectiveness, but may also induce negative indirect

impacts (shifting the problem of deforestation due to expansion of palm oil plantations to other regions), or targeting only a part of the problem in Indonesia

## **3.2 Presence of success variables**

We have analyzed the feasibility of three proposed moratoria in Indonesia according to the success variables and can give a preliminary appreciation of their - potential - success.

### **3.2.1 Mitigating Measures**

The 2001 moratorium contained reforms aiming at financing reforestation projects, but targeted only the forestry sector and did not include or link to other sectors. The available documentation on the Greenpeace moratorium does not show what mitigating measures will be designed, but this might be due to the fact that the moratorium has not been established yet.

A quick scan of the interests involved in the debate on deforestation in Indonesia shows that they are manifold:

- Political-economical: Local governments need to generate sufficient local revenue for governance, thereby eager to attract large scale plantation investments or increasing processing capacity in their realms, creating additional demand for forest resources and land. Although there are several national and local policy acts and decrees in place to protect forests and to reduce impacts on forests caused by conversion, these regulations are in some cases not enforced adequately by state agencies responsible for regulating resource use, either due to corruption or due to a lack of sufficient means and capacity.
- Economical: The forestry business yields \$ 2.5 billion in foreign exchange and timber and wood processing industries provide approximately 6-8 million jobs, nationally (WALHI, 2007). International demand for timber and timber products, as well as for palm oil and derivatives is high and increasing, while production costs in Indonesia remain low. Both sectors depend heavily on the availability of (cheap) arable land and labor.
- Socio-economical: In Indonesia millions of (indigenous) people depend on the forests for their livelihood, such as land, NTFPs, game and timber supplies. Moreover, they depend on these forests, often managed under the community's traditional law, for cultural and religious practices. Where deforestation concessions are issued, these often overlap community lands. Deforestation completely overhauls their entire way of life, while the loss of (indigenous) lands has caused land conflicts between communities and companies and governments.
- Ecological: Deforestation impacts biodiversity, ecosystem services (soil, water, nutrients) severely. The forests are habitat to millions of (indigenous) species, among which are the orangutan, the white rhino, Sumatran tigers and elephants. The global significance of the forest destruction in terms of biodiversity and climate change should not be underestimated. Habitat losses cause human wild life conflicts.

These different interests and agendas will make it difficult to find a single solution and emphasize the importance of designing and integrating mitigating measures.

### **3.2.2 Monitoring systems, institutional capacity and decentralization**

Since the early 1990s, there are several laws and governmental decrees in place regulating the forestry sector and conversion. For example, laws are in place prohibiting open burning with the intent to clear and prepare land for planting<sup>7</sup> and obliging land owners to take fire prevention measures, including monitoring of fire outbreak and reporting based on satellite images<sup>8</sup>. Exhibit 6 shows the most relevant laws and regulations since 1990.

### **Exhibit 6: Relevant laws and regulations for the Indonesian forest policy**

- Law No. 5 of 1990 concerning Conservation of Living Resources and their Ecosystems
- Law No. 24 of 1992 concerning Spatial Planning
- Law No. 5 of 1994 concerning the Ratification of the United Nations Convention on Biological Diversity
- Law No. 23 of 1997 concerning Environment Management
- Law No. 41 of 1999 concerning Forestry (this law replaces Act No. 5 of 1967 on Basic Forestry Law)
- Law No. 22 of 1999 concerning Regional Governance
- Law No. 25 of 1999 concerning Fiscal Balance Between the Centre and the Regions
- Government Regulation No. 33 of 1970 concerning Forest Planning
- Government Regulation No. 25 of 2000 concerning Government Authority and Provincial Authority as an Autonomous Region
- Government Regulation No. 51 of 1993 concerning Environmental Impact Analysis
- Government Regulation No. 28 of 1985 concerning Forest Protection
- Government Regulation No. 7 of 1999 concerning Preservation of Flora and Fauna Species
- Government Regulation No. 8 of 1999 concerning the Utilization of Species of Flora and Fauna
- Government Regulation No. 25 of 2000 concerning Government Authority and Provincial Authority as an Autonomous Region
- Government Regulation No. 84 of 2000 concerning Guidelines for Regional Organization
- Government Regulation No. 39 of 2001 concerning Execution of De-concentration
- Government Regulation No. 4 of 2001 concerning Control of Environmental Degradation and Pollution in Correlation with Forest & Land Fires
- Presidential Decree No. 32 of 1990 concerning the Management of Protected Areas
- Government Regulation No. 34 of 2002 concerning Forest Compartment and Forest Management Plan,
- Forest Exploitation and Forest Area Utilization
- Government Regulation No. 35 of 2002 concerning Reforestation

Source: Ministry of Forestry, Indonesia (2002)

In general, the implementation of reform measures requires sufficient monitoring mechanisms to control 400 concession holders and 51 million hectares, and an effective system of surveillance and chain of custody to control trade, in addition to the capacity to enforce the laws physically. In 2001, the state forestry bureaucracy was understaffed, poorly trained, and ill-equipped to administer this. The 2001 reform design did not take into account this lacking institutional capacity, or include mechanisms to increase this capacity, one of the key success variables.

In Indonesia, the Decentralization Law went into effect in 2001. The decentralization process gives more authority to districts to create local regulations that are deemed as necessary for the district 'wellbeing'. Although each district has a local tax base, they are generally insufficient to pay even minimal public service level. Thus, the provincial and district governments that will benefit from decentralization are largely without the capacities or funds needed to govern effectively. Each district needs to find other forms of revenues to fund adequate compensation for local officials. Intensified exploitation of forest resources is a result in many regions as a means to derive local revenue (Kuncoro, 2006). In the case of the security forces, the profits drawn from the illegal resource trade are a major source of operational funds as well as personal wealth. This fact has also encouraged corruption and bribes in some districts as a form of indirect taxation to compensate for the income loss under the new budget arrangement.

Under the decentralized system, significant responsibilities for forest sector policymaking and planning as well as implementation responsibilities lie with the provincial and district governments. More than 480 districts, called *kabupaten*, took on forest management responsibilities when centralized control was devolved as a part of the reform. For example, a great part of the licensing process was decentralized in Indonesia since 2001. For example, an Environmental Impact Assessment (EIA or Analisis Mengenai Dampak Lingkungan, AMDAL), is to be

approved by a special EIA Commission (Komisi AMDAL) at the district or provincial level whose members are comprised of various government officials at different levels and relevant ad hoc parties from NGOs, academic institutions and local communities. Without an approved EIA no valid Plantation Operation Permit can be issued by the District Head. Other permits include land use permits, operation permits and forest product removal permits, all to be issued at district level.

Few, if any, have the enforcement capacity needed to regulate the activities of either formal concession-holders or the various actors involved in informal timber harvesting. Complicating matters are that units of the military, national police force and other arms of the state apparatus are known to be heavily involved in illegal logging in most timber-producing provinces (CIFOF, 2001). Coordination between state agencies is often poor and a further level of complexity has been added by decentralization, which has encouraged some local officials to resist directives from Jakarta and even to impose taxes on illegal logging and mining. As a result, in many cases, conversion contradicts legal requirements for location, use and EIAs. The illegal resource industry is protected and sometimes even organized by corrupt elements in the civil service, security forces and legislature (ICG, 2001).

An independent monitoring system to regulate concessionaire management practices is highly recommended, and was in fact included in the 2001 moratorium, but at the same time it is difficult to imagine how such a system could function without the active support of the state's own law enforcement agencies.

The main leverage in Indonesia is local law enforcement capacity, which is seriously hampered by the fact that local governments lack sufficient means to enforce the law, and by the fact the establishing industries in the local region create revenues necessary to fund capacity. None of the current three moratoria pay sufficient attention to institutional strengthening and capacity building, another one of the key success variables from our analysis. It is therefore recommended, that if WWF is to embrace one of the calls for moratoria, efforts to increase local capacity should be included.

### **3.2.3 Cooperation with stakeholders**

The 2001 moratorium focused mainly on governmental restructuring and logging concession holders and the timber industry. WAHLI, recalling the moratorium in 2007, did indeed call for the involvement of other stakeholders, mainly the local population and NGOs.

The Greenpeace moratorium is actually a coalition of companies, banks and NGOs, co-led by Unilever. There are over 40 companies in the coalition including, Nestle, Kraft, Pepsico, Unilever, Proctor and Gamble, Reckitt Benckisser, Henkel, J&J, Lion and Kao Corp, Ahold, Asda, Sainsburys, WalMart and NGOs such as Greenpeace, WWF, Oxfam, Conservation International, and even some major banks - Rabobank, Fortis, JP Morgan, IFC (Greenpeace, 2008). This coalition calls upon the government of Indonesia to establish a moratorium, but has not yet involved government agencies such as the State Government for legal framework design, National Ministry of Forests, Ministry of Estate Crops, National and Regional Planning Agencies (BAPPEDALDA) and ANDAL Agencies.

Other international stakeholders of the Indonesian forestry are FLEG, UNEP, ITTO, World Bank UNCED - international organizations whose principles Indonesia has committed it self to. It is recommended to check the extent to which these stakeholders are involved in the design and implementation of an Indonesian moratorium. These partners could assist Indonesia in solving the legality issues in the forestry sectors and land use policies. In addition, certifications such as RSPO (oil palm) and FSC and LEI (forest management) provide standards for sustainable resource management.

### **3.2.4 Communication strategy**

None of the three moratoria have explicitly defined a communication strategy to create public awareness on the problems to be addressed by the moratorium. There is however, among NGOs in and outside Indonesia awareness of the problems, thanks to many public campaigns which were organized in the past decade. Integrating these campaigns into the moratoria is recommended and cooperation is to be sought with local, national and international NGOs, as well as for example embassies.

### **3.2.5 Design of moratoria as part of an integrated approach**

One might conclude that the 2001 policy reform was not successful. CIFOR (2001) stipulates that this is partially because IMF and World Bank strategies conflicted with other economic restructuring policies and actually increased the pressure on Indonesia's forests. The moratorium was not designed integrally with other policy reform strategies - one of the key success variables.

WAHLI recalls for this moratorium, and if WWF is to embrace this call, it is recommended to investigate if collaboration between the forestry and relevant other sectors is foreseen, and if the other success variables are included.

## **3.3 Recommendations to WWF**

- A moratorium focused on logging or conversion for large scale land use (be it oil palm, mining or industrial tree plantations) could indeed provide the necessary breathing space regarding the current problems and agendas in order to find a long term solution.
- Such a moratorium should not be limited to improving forestry and plantation activities, such as legal timber tracking, field monitoring, restructuring the pulp and timber industries etc, but should also contain a legal review, during which the validity of existing permits and contracts are checked at district level.
- A national moratorium is difficult to implement in a country as vast as Indonesia, where regulation is decentralized. It is therefore recommended to start moratoria at provincial or district level.
- The most promising provinces to start with moratoria at first sight are Papua (vast forests), Kalimantan (last remaining patches of forests) and Sumatra, where governors are progressive towards forest protection. Both the Governor of Aceh and the governor of Papua (Irian) have called for a moratorium. Which provinces and districts are most suitable should be further determined.
- The fact that provincial and district governments lack the means to effectively enforce the law causes problems as well as hampers solutions. Revenues and means should be (made) available by either the national government, or (in kind) by NGOs in the form of trainings, during the moratorium, in order to execute the steps that have to be taken during the moratorium.
- The Greenpeace / Unilever moratorium resembles the soy moratorium in Brazil in its approach and targets. If WWF is to embrace this moratorium, pitfalls identified in our assessment of the Soy Moratorium in Brazil are to be taken into account. One of the most important flaws was that the problem can easily shift to other regions or other sectors if the scope is limited to either a region or a sector.

# Appendices





## **Appendix 1: Description case studies**

### **People's Republic of China<sup>9</sup>**

#### *Description*

State-owned forests are important sources of income for China, in terms of timber production, water conservation, and tourism. Logging bans or reductions are necessary to rehabilitate the forest resource, improve the stand quality, and improve the ecological functions of these forest areas. In 1998, the Government imposed logging bans on natural forests in the upper reaches of the Yangtze River and the middle and upper reaches of the Yellow River and in state-owned forests in 17 provinces of northeast China, Inner Mongolia and Hainan to halt the deterioration of the natural environment and safeguard sustainable development. The implementation of the ban is described in the China's National Forest Conservation Program (NFCP). The aim was to reduce natural forest timber production from 32 million m<sup>3</sup> in 1997 to 12 million m<sup>3</sup> in 2003, to conserve 41.8 million hectares of natural forests and to establish 21.3 million ha of timber plantations between 2000 and 2005. In addition, the Natural Forest Conservation Program (NFCP) stressed the need for reforestation and greening of wastelands, increasing forest cover, rehabilitating forest stand qualities and expanding forest eco-functions.

In support of the NFCP, the Chinese Government formulated policies, endorsed enabling laws and regulations, and set up administrative, budgetary, and scientific structures to ensure that the NFCP objectives and tasks will be accomplished. To effectively implement the logging ban of 1998, the national government employed and trained teams of forestry police to enforce forest protection, and made available funds, tax and credit breaks and investments to encourage the creation of new jobs to re-deploy the one million workers unemployed, including those involved in road construction, mechanical repair, transportation, log depots, processing and logging, as a result for the bans. Monitoring natural forest protection efforts by grassroots units is stressed. Law enforcement is decentralized.

Domestic demand for timber in China was about 87.6 million m<sup>3</sup> annually already (1997 data), and increasing. As a result from the logging bans, China had to seek alternative timber supplies by expanding forest plantations, intensifying forest management in plantations, and by increasing its imports by eliminating import tariffs on logs in 1999, leading to a substantial increase in imports of logs (9.1 million m<sup>3</sup>, 115 % increase) and sawn wood (2.4 million m<sup>3</sup>, 65 % increase). A significant part of China's log and sawn wood imports come from Indonesia, Malaysia and Papua New Guinea. Although intensification of its domestic industrial timber production, the gap between supply and demand continues to increase, necessitating more timber imports.

#### *Effectiveness and Impacts*

Since the implementation of the NFCP, domestic timber output has been reduced systematically, selective logging is replacing traditional large-scale clear cutting and nature reserves and parks have successfully been established. Plantations have reduced harvests in natural forests, but due to lag in development of timber substitutes and comprehensive timber utilization, as well as the rapid pace of economic development, the commercial timber output targets set by the government could not be fully reduced to sustainable levels. Moreover, the redeployment of laid-off workers in the forest areas became increasingly difficult.

In terms of impacts there are mixed conclusions. On the one hand the deterioration of natural forests was slowed down, due to effectively less large-scale cutting and nature protection. On the other hand, due to growing unemployment, the financial burden on local governments, schools, hospitals and judiciaries in the forest areas grew heavier, and therefore enterprises often had little choice but to over-log the natural forests to generate revenues and meet timber production targets.

## Philippines

### *Description*

Logging bans have been selectively imposed in the Philippines since the early 1970s on a case-by-case basis. Various motives underlie the logging bans including continuing loss of biodiversity, destruction of natural resources, corruption, migration and displacement of indigenous people. General bans were initiated in 1983 covering much of the Philippines, with additional specific bans in 1986 and 1989. In 1991, the Department of Environment and Natural Resources (DENR) issued an administrative order "Department Administrative Order (DAO) No. 24", banning timber harvest in all oldgrowth forests of the Philippines, banning timber extraction in critical areas, and allowing commercial logging only in secondary forests and plantations. In December 2004, following the destructive typhoons that hit the provinces of Aurora and Quezon causing much damage to lives and property, Philippine President Arroyo ordered the cancellation of logging permits in Quezon province and suspension of all permits in the rest of the country. An act to totally ban all logging for the next twenty-five years was introduced in Congress in 2004, and again in June 2007 by several senators.<sup>10</sup> This act is still under consideration.

More than 70% of the provinces are now under logging bans or harvesting moratoria. Nationally, the number of timber license agreements has been reduced from 114 in 1989 to 21 in 1998 down to 18 in 2001. The area under license has decreased to only 0.5 million ha. Similarly, the annual allowable cut was reduced sharply from 5 million m<sup>3</sup> in 1990 to about 0.5 million m<sup>3</sup> at present.

Government policies on industrial plantations have changed about 20 times between 1975 and 2007. This has caused instability and uncertainty, and subsequently very low investment in forest protection. Weak incentives have led to only marginal private sector involvement, discouraging further expansion of industrial timber plantations.

### *Effectiveness and Impacts*

With the existing national logging ban imposed in 2004, the forest industry, forest-dependent communities, and the buying public have felt the effects of the implementation. The main effects included: loss of jobs (partly due to insufficient alternative opportunities), increased-forest dependence of displaced workers and nearby communities, critical state of the forest industry (with the logging ban, the corporate processors' contribution is decreased while illegal logging sources and importation are filling the gap), reduced domestic wood supply, increased prices (wood prices have increased by 40%), loss of government revenues and inadequate government services for protection of remaining forests (Bugayong, 2006).

The imposition of logging bans in most of the provinces, and the subsequent cancellation, non-renewal and suspension of logging activities, generally turned forestlands into open access areas. This invited the entry of illegal cutters in response to the increasing demand for forest products. Logging bans thus encouraged illegal logging, which causes market imperfections and imbalances in the local prices for forest products. Logging bans also encouraged illicit alliances among financiers, illegal cutters, the military, and DENR field personnel (FAO, 2001).

As a result of these effects, the impacts of the moratorium on forests were mixed, because on the one hand exploitation became less, but on the other hand, through increased unemployment and decline of government services, the impacts were negative.

## **Thailand<sup>11</sup>**

### *Description*

In response to devastating floods in Nakorn Srithamamarat Province in the south of Thailand in 1988, and persistent public pressure from NGOs and the media prior to the flooding disaster, a commercial logging ban was imposed on 17 January 1989 (Cabinet Resolution (Order number 32/2532). Logging contracts and concessions were revoked, and applications for new concessions were dismissed in fear of more landslides and flash floods. In 1996, the government also revoked logging licenses in mangrove forests to halt their destruction, which was especially excessive during the 1980s and early 1990s when mangrove forests declined from 312.000 ha (1979) to 53.000 ha (1993).

With the ban, the Thai government aimed at protection and rehabilitation of natural forests, improvement of degraded land and productive land, securing livelihoods of forest dependent people, conservation of soil and water resources. Increasing the government capacity, through the Royal Forest Department (RFD), to implement the new strategies was one of the priorities.

### *Effectiveness and Impacts*

Minimal preparation and the lack of a comprehensive strategy prior to the launch of the logging ban have caused confusion, difficulties in balancing wood production and consumption, and major challenges in achieving forest conservation.

The logging ban has been a catalyst for the RFD in particular, to develop more purposeful management activities for forest conservation and the establishment of various reserves and parks. The implementation of the ban has however been hindered by a lack of clear policies and strategy. There has been no pre- or post-implementation legislation regarding the logging ban. The ban on commercial logging has not prevented further deterioration of the natural forests. The effectiveness of the ban in mangrove forests has been questioned not only for ongoing logging, but also because of illegal encroachment for prawn farming, construction of resorts and other non-timber uses, which are destroying the mangroves.

The logging ban has directly affected employment and personal income. In some areas, villagers were forced to turn to illegal activities, further threatening the already degraded forest ecosystems. In addition, relocation of people residing in conservation forests has resulted in numerous conflicts.

In addition, it is apparent that Thailand has been unable to cope with the imbalance of timber and wood products, imports and exports. In economic terms, Thailand's forestry and forest-product industry have reduced production and have foregone considerable income.

Thus, the logging ban mostly has not been effective, resulting in serious negative impacts. Markets have responded with higher prices, which have led to increased imports and expenditure of foreign exchange. Shortages and higher prices have caused the private sector and involved parties to increase illegal harvesting and deforestation in Thailand and its neighbors, sometimes with encouragement from the Thai government to log forests across the borders. Neighboring countries blame Thailand for putting a too heavy demand on their domestic timber sources.

One important example is Cambodia that in response to increased timber harvesting, resulting from the logging ban in Thailand, also implemented a logging ban. The situation in Cambodia was however particularly complicated as the moratorium also aimed at depriving the Khmer Rouge--an extreme Maoist guerrilla faction --that were benefiting from timber export to Thailand. This

moratorium brought about a dispute on the relation between trade, environment, and politics in Cambodia, while illegal logging continued (American University, 1996).

FAO (2001) concluded that many concerned stakeholders have not yet embraced the idea of participatory approaches and decentralized forest management and conservation. The roles of the public administration directly responsible for forest policies (such as the RFD) still need to be redefined and innovative partnerships with local communities and NGOs must be clearly specified.

## **Vietnam<sup>12</sup>**

### *Description*

In the 1990s, the government of Vietnam imposed a logging ban in most natural forests in response to heavy deforestation and forest degradation. Increasing demand for timber, combined with out-dated timber processing techniques and little forest law awareness had caused serious forest degradation, and an annual forest cover loss of 100.00 hectares. In order to protect and develop the natural forests, stabilize forest ecosystems, and ensure sustainable development, logging restrictions were imposed in seven provinces and the export of wood products was banned in the early 1990s. In 1997, logging was banned in most natural forests and a 30-year logging ban was instituted in critical watersheds. All commercial logging was also prohibited in remaining natural forests in the northern highlands and midlands, the southeast, and in the Mekong River and Red River Delta provinces. Under the new policy, logging is permitted in only 19 provinces, reducing the timber harvest by 50%.

With the ban, the government aimed at long-term improving of the wood production capacity, including fuelwood and other forest products to meet domestic demand, the protection of 9 million hectares of forest, the reforestation of 5 million ha and to create employment and socio-economic standards for 20 million farmers in mountainous areas by allocating agricultural and forestland to encourage them to participate in forest protection and development. Farmers were given the resources to plant 3 ha of trees each to generate an estimated annual income US\$ 70 to US\$ 100 per year and each household to receive US\$ 350 to US\$ 500 per year from the sale of timber.

By replanting more than 3 million hectares for commercial use by 2010, it is estimated that eventually 2 million m<sup>3</sup> of timber for processing and 5 million m<sup>3</sup> of firewood will be produced, in order to meet domestic demand for timber, wood panels and paper. In addition, by providing credit and loans to enterprises, capacity of paper mills and wood processing industries is upgraded and investment in plantations is encouraged.

### *Effectiveness and Impacts*

As a result of the ban since 1997, forest cover increased by 1.5% annually. Many provinces closed access to natural forests. Due to this, the annual forest cover destroyed by fire also declined. Although the logging ban has provided important benefits, negative impacts have resulted in the areas of employment, income generation, and availability of fuelwood and timber.

With the demand for wood imports projected to increase by 500 000 m<sup>3</sup> annually, there is an increasing deficit in raw materials resulting in an imbalance in supply and demand, increasing competition in the market. Due to the shortage of wood from natural forests, the wood-processing enterprises have to rely on wood from forest plantations, which is often of different species, size, quality and end-use attributes. A considerable amount of capital investment is required to innovate and modernize the enterprises. This growing demand for wood products combined with reduced

timber volumes has increased prices. In addition, government budgets have been limited to create enough employment for unemployed forest workers.

FAO (2001) concludes that major adjustments to State enterprises and wood industries, and attracting local and international investors, are important elements necessary for success. The logging ban was instrumental in closing many natural forests from further exploitation, yet additional adjustments and policy changes are required to assure a strong forest economy and adequate protection and conservation.

## **Sri Lanka<sup>13</sup>**

### *Description*

In 1989, a temporary ban on logging in natural forests was imposed on highly degraded areas to allow them to recover and to develop sustainable management plans, primarily in the wet zone in the southwest of the island. This was extended to a total ban in 1990, at which time another 31 areas, covering 61 300 ha, were added to the protected area system. Overall, the ban affects about 1 million ha of production forests. In 1995, a large proportion of natural forests was given protected area status, and residual natural forests outside the protected areas were set aside for sustainable multiple-use management. This ban is still in place and continuation of the ban on logging operations in the natural forests is recommended until management plans are prepared with the active participation of local communities and the depleted forests are rejuvenated. Since almost all the natural forests are State-owned, the institutions involved in implementing the logging ban are limited to the Forest Department and the State Timber Corporation (STC).

The implementation of the logging ban came as a response to criticism on a Forest Management Plan (FMP) that was being developed in 1986. The FMP evoked protest from environmentalists, academics, NGOs, the general public, and some officials of the Forest Department for not giving adequate attention to environmental and forest conservation considerations. The Government responded by commissioning an environmental study to evaluate the FMP proposals, with assistance from the World Bank and the World Conservation Union (IUCN). Amongst the study's recommendations was the implementation of a moratorium.

The goals of the moratorium included prevention of degradation and loss of natural forest cover; rehabilitation of degraded forests; protection of biodiversity; maintenance of forest functions and values. The Forest Department has a firm commitment to enforce the logging ban. In addition to the logging ban, management plans (including zoning) are being formulated in consultation with relevant agencies and stakeholders according to the principles of "bottom-up planning" and transparency to indicate management priorities and operational approaches for managing forest resources.

### *Effectiveness and Impacts*

Prior to the ban, the demand for industrial logs in 1985 was approximately 980 000 m<sup>3</sup>, of which 425 000 m<sup>3</sup> (44 percent) were sourced from natural forests. Non-forest wood supplies - mainly from homegardens, rubber, coconut and palmyrah plantations - amounted to 455 000 m<sup>3</sup>, and forest plantations provided 80,000 m<sup>3</sup> of industrial wood. By 1993, homegardens, rubber and coconut plantations supplied over 70 percent of wood while plantations contributed about 4 percent. The STC harvests from natural forests have declined sharply, and since 1990 State plantations are the main source of timber for the STC.

By 1998, the Forest Department was managing 92 340 ha of State plantations, in comparison to the 5 000 ha of private plantations. Lack of proper management and inappropriate species, encroachment, fire damage, elephant damage, and the poor quality of plantations have however

limited the plantations' harvest potential. Incentives for private development of commercial plantations remain weak. Annual timber production from plantations was expected to be about 90 000 m<sup>3</sup> between 1999 and 2005, covering only 36 percent of the anticipated gap between demand and supply of logs.

No formal policy revision, amendment to the Forest Ordinance, regulation or special legal provision was enacted in imposing the logging ban in 1990. Illegal cutting in natural forests, probably for this reason, still occurs on a small scale. The threat of illegal cutting is much greater in forest plantations than in natural forests. The Forest Department had recorded an average of 670 forest offenses per year for illegal cutting in natural forests (about 1 000 cases from plantations) from 1991 to 1995. The volume of timber involved in these illegal cuttings was about 1 130 m<sup>3</sup> per year, valued at around US\$ 80 000 (SL Rs 5.2 million). To date, law enforcement remains a primary preoccupation of forest officers.

Impacts of the logging ban are similar as compared to the above moratoria. The implementation of the logging ban had its effect on local populations. The number of STC employees declined from 2,990 in 1990 to 1,720 in 1996. About 820 employees left voluntarily and received incentive packages that cost the STC around SL Rs 42 million (US\$ 850 000).

In addition, about 6,700 m<sup>3</sup> of logs valued at SL Rs 73.8 million (US\$1 = SL Rs 49.5 in 1993) were imported in 1993, and imports have increased only slightly since. During the 1980s, there were no imports at all. Although imports have slightly increased since the logging ban, scarcity of logs has resulted in substantial price increases for some species. The reduction in the timber production also led to a decline in sales revenues and Government royalties from 1991 to 1994.

## **Paraguay**

### *Description*

The Forest Conversion Moratorium (FCM) law (Law 2524/4) prohibits the transformation and conversion of land with forest cover in the Eastern Region of Paraguay for agricultural use or human settlements. Initially implemented on December 13, 2004, it had a two-year term and was extended by two years in December 2006, and by another five years in November 2008, until 2013.

It was established on a temporary basis in order to allow time to set up accompanying legislation for the Upper Parana Atlantic Forest in Paraguay and establish sustainable environmental resource management (WWF Paraguay, 2007).

Main reason for implementing a moratorium was the alarming deforestation rate. Until 2004 Paraguay registered the highest deforestation rate in the Americas and second in the world. Nearly 7 million hectares of Atlantic Forest was lost to slash-and-burn for agricultural and ranching use in close to four decades (WWF, 2008).

Other than the bans and moratoria described above, this moratorium was achieved with the collaboration of various governmental and non-governmental organizations who signed a Social Pact. Among the signatories are 12 governmental institutions (among which ministries, police and credit agencies), 22 regional governments (departments and municipalities), international cooperation organisations FAO and UNDP, 22 producer groups and 25 national NGOs and research institutes giving it important recognition at both the national and international levels (WWF Paraguay, 2007).

Apart from the Social Pact, the FCM also entailed the implementation of a monitoring strategy, provision of economic alternatives through the development of an environmental service law (Law 3001, 2006) in order to promote the conservation of remaining forest areas and the implementation of a multifaceted communications campaign to promote the FCM on a national scale (WWF Paraguay, 2007).

#### *Effectiveness and Impacts*

By 2006, Paraguay had reduced its deforestation rate by 85% (WWF Paraguay, 2007). This number is still declining and is now between 90 and 95%.<sup>14</sup> Monitoring deforestation is outsourced to Guyra Paraguay, who uses satellite images. Guyra determined a total of 53,403 hectares of deforested land in four years of enforcement of the Law. This equals an average rate of deforestation of 13,350 hectares per year, which is much lower than the 112,958 hectares of deforestation rate per year between 1989 and 2001<sup>15</sup>. The Law (under the moratorium) also brought lawsuits and convictions against landowners for “environmental crimes” relating to punishable acts of deforestation (WWF, 2006).

Despite these positive effects, the implementation of the FCM is causing negative impacts as well. Since its implementation, there has been a significant increase in deforestation outside the limits of the Upper Parana Atlantic Forest, especially in the western Chaco region. Guyra estimates the current deforestation rate in this region at 500 ha per day.<sup>16</sup>

Although economic alternatives are included within Law 3001, the country is lacking clear strategies to actually limit the impacts from deforestation. For example Guyra has not received any benefits yet for their protected areas. Related to this, there are no strategies developed incorporating (re)forestation programs which are considered essential in establishing sustainable forest management.<sup>17</sup>

## **Brazil**

#### *Description*

In July 2006, ABIOVE (Brazilian Vegetable Oil Industry Association) and ANEC (Brazilian Grain Exporters Association), and their respective member companies, pledged not to trade soy originated after July 24, 2006 in deforested areas within neither the Amazon Biome nor soy that involved the use of labor that is analogous to slave labor (GTS Soy Bean Working Group, 2007). The Moratorium was called upon in July 24, 2006 and would originally last for two years. The moratorium was extended to July 2009 by the involved traders, including members of ABIOVE, Wal-mart, Carrefour and McDonald's.

The agreement seeks to reconcile environmental preservation with the region's economic development, through the responsible and sustainable use of Brazil's natural resources (Abiove, 2006). The moratorium stays until proper procedures for legality and governance are in place and until there is an agreement with the Brazilian Government and key stakeholders on long term protection for the Amazon rainforest (Greenpeace, 2006).

The moratorium defers from other moratoria in the way it was accomplished. Rather than Brazil's government enforcing the ban, it was NGOs (Greenpeace) and European soybean buyers (amongst which McDonald's, Wal-mart and Carrefour) that pressured the change. The moratorium was called for, following a Greenpeace publication “Eating up the Amazon” in April 2006. The report indicated the impacts of soy trade in the Amazon. McDonald's and several leading European food retailers subsequently formed a unique alliance with Greenpeace to demand action from soy traders to stop deforestation in the Amazon rainforest.

ABIOVE and ANEC, both representing its member (among which are multinational soy traders), NGOs Conservation International, Greenpeace, IPAM, TNC and WWF take part of the Soybean Working Group (GTS, 2008) to join efforts to implement the Soy Moratorium and control the moratorium process. National civil society also contributes to the moratorium activities. During the moratorium, the sector is committed to work with Brazilian government entities, and entities which represent rural producers and society to:

- implement an effective mapping and monitoring system using cartographic material;
- develop strategies to encourage soy producers to comply with the Brazilian Forest Code, including the dissemination of good agricultural practices and social and environmental care;
- refine institutional relations and legislation to improve controls over deforestation and development of soy production in the Amazon Biome (economic-ecologic zoning) through cooperation between involved sectors and government (GTS, 2008).

#### *Effectiveness and Impacts*

According to ABIOVE and Greenpeace, the moratorium has been effective in reducing new rainforest clearing for explicit soy production. A joint report released in March 2008 found no new soybean plantations in any of the 193 areas that showed deforestation of 100 hectares (250 acres) or more between August 2006 and August 2007 (Globalsat, 2008).

Despite the positive results of the moratorium, some observers say soy continues to be an important indirect driver of deforestation in the Brazilian Amazon by driving up land prices and creating an impetus for infrastructure improvements that promote forest clearing. In areas where soils and topography are suitable for mechanized soy cultivation, rainforest lands are typically cleared for low-intensity cattle ranching then sold to soy producers some two to three years later. Ranchers then move into new frontier areas, spurring further deforestation.<sup>18</sup> Furthermore, the moratorium resulted in soy farmers purchasing already deforested areas from landholders in the area, causing a secondary wave of deforestation in which those not within the moratorium push the frontiers of deforestation forward (AAA, 2008). Lastly, soy production continues to be an important driver of deforestation in other important biomes in Brazil, among which is the Cerrado.

## **Democratic Republic Congo (DRC)**

### *Description*

In 2002, the government of the Democratic Republic Congo<sup>19</sup> declared a moratorium on the issuance and renewal of all logging licenses until satisfactory standards of governance and management are achieved in existing concessions. Until then, no further logging contracts are to be issued and existing ones are not to be renewed or extended.

At the behest of the World Bank, and confirmed in Presidential decree of October 2005 the moratorium was extended until a legal review is completed, during which the validity of existing logging contracts are checked; an auction system is in place and a 3-year allocation plan is adopted, which should establish whether new concessions are needed or not and where, based on technical grounds (Debroux et al, 2007). The outcomes are indicators for World Bank sector support.

The moratorium was called upon by the World Bank, in response to the current intransparent forest management policies in the country (World Bank, 2009): the majority of the country's forests were locked up under large-scale logging concessions, with no local consultation, no fair return for the local people or the country, and no consideration for alternative forest uses. They overlapped with villages, farmlands and biodiversity hotspots, and no provisions were in place for meaningful



public participation. In the absence of radically innovative policy actions, this situation was clearly conducive to further social, economic and environmental losses (Debroux, et al, 2007).

The moratorium is implemented by the Ministry of Environment, the Presidency, together with NGOs, the private sector and local representatives. An independent observer (WRI) attends to ensure objectivity and transparency. The observer's mandate is to ensure fairness and transparency of controls and penalties, to facilitate public information and the involvement of civil society, and to improve case-tracking.

#### *Effectiveness and Impacts*

Although total forest area under concessions has fallen to 21 million hectares today, down from a high of 43 m ha in 2002, the implementation of the moratorium is seriously challenged by the fact that the public administration in the DRC has historically suffered from corruption and abuse of authority, and public servants are equipped with limited means, limited staff, insufficient salaries and training and sometimes overlapping mandates.<sup>20</sup> The central government lost much of its territorial presence during the war, including in most of the forested regions of the north and east (Debroux et al, 2007). In post-conflict DRC, the restarting of many sectors of the economy, demographic growth, and the absence of a structured process for land-use planning all create the risk that incompatible uses will overlap and conflict with each other, and jeopardize traditional user rights and the environment (Debroux et al, 2007).

As a result, the moratorium was bypassed in several ways. CIFOR, instigated by the World Bank found that at least 2.3 million hectares of new concession rights were granted since 2002 and that serious violations of the forest laws were committed (Debroux et al, 2007). Similarly, Greenpeace reviewed 156 contracts independently and found that nearly all were in intact forest landscapes inhabited by forest dependent communities or pygmy hunter-gatherers, almost all contracts were signed after the May 2002 moratorium, and only 25% had indeed paid tax (Greenpeace, 2001).



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## Appendix 3: Notes

- <sup>1</sup> Not all moratoria are exclusively the product of government decision making. The Brazilian moratorium was predominantly installed by companies, sector representatives and NGO's.
- <sup>2</sup> In our analysis and framework we refer to moratoria instead of logging bans as logging bans only entail a prohibition.
- <sup>3</sup> pers. comm. Guedes Pinto, L.F. - Imaflora, January 2009
- <sup>4</sup> pers. comm. Yanosky, A. - Guyra Paraguay, February 2009
- <sup>5</sup> SMART = Specific, Measurable, Attainable, Realistic, Time-Bound
- <sup>6</sup> In response to the 1997 Asian financial crisis, the International Monetary Fund and the World Bank provided large loans to the Indonesian government in return for their commitment to implement policy reforms intended to stabilize the economy and rekindle growth. Those reforms included various measures explicitly designed to improve forest management, such as a review of the tax system, establishment of a system for auctioning concessions and reduction of land conversion targets to environmentally sustainable level, and incorporation of the government's Reforestation Fund into the central government budget, and steps to ensure that the funds are used exclusively for their intended purpose of financing reforestation programs.
- <sup>7</sup> Environment Act No. 23, Plantation Act No. 18, Government Decree No. 4/2001 Act on Environmental Pollution
- <sup>8</sup> Government Decree No. 4/2001 Act on Environmental Pollution, Art. 13-15
- <sup>9</sup> The information of this case study is based on FAO (2001).
- <sup>10</sup> Bills no 1 150, 275, 27, and 73 for example. Bills are published at <http://www.senate.gov.ph/lisdata>
- <sup>11</sup> The information of this case study is based on FAO (2001).
- <sup>12</sup> The information of this case study is based on FAO (2001).
- <sup>13</sup> The information of this case study is based on FAO (2001).
- <sup>14</sup> pers. comm. Aquino, L. - WWF Paraguay, January 2009
- <sup>15</sup> pers. comm. Rhodas, O. - Guyra Paraguay, January 2009
- <sup>16</sup> pers. comm. Yanosky, A. - Guyra Paraguay, February 2009
- <sup>17</sup> pers. comm. Yanosky, A. - Guyra Paraguay, February 2009
- <sup>18</sup> [Http://news.mongabay.com/2008/0623-soy\\_amazon.html](http://news.mongabay.com/2008/0623-soy_amazon.html)
- <sup>19</sup> The DRC is emerging from a decade of political instability and violent conflict that led to the near-collapse of the economy. Annual deforestation rate between 1984 and 1998 was about 0.4 per cent, which seems modest compared to other tropical countries. Insecurity and the military conflicts probably maintained forest disturbance by farming, and certainly by logging, below the level that would have been the case without war. Debroux et al, 2007. Web: [http://www.cifor.cgiar.org/publications/pdf\\_files/Books/BCIFOR0701.pdf](http://www.cifor.cgiar.org/publications/pdf_files/Books/BCIFOR0701.pdf)
- <sup>20</sup> The average civil servant wage is about 37 dollars per month at director level