



The Greener Side of REDD+: Lessons for REDD+ from Countries where Forest Area is Increasing - Policy Brief

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National governments and international institutions are increasingly realizing the global importance of forests. Urgent problems such as biodiversity loss, natural resource conflict, poverty alleviation, and carbon emissions converge in forest areas. International efforts to address these challenges are focusing in on countries where tropical forests are dwindling rapidly. The publicity surrounding REDD+ negotiations at the UNFCCC COP-16 in Cancún is a prime example, and 2011, the International Year of Forests, will surely bring more attention to these intertwined crises.

and restoring forests, long before the implementation of REDD. Why and how did they go through the transition to becoming forest-adding countries (FACs)?

This is not a purely historical point, the search for common answers to this question across countries reveals useful lessons for the current FLCs. In particular, the experiences of the FACs can inform design and implementation of REDD+ programs that aim to set more and more of the world's most forested countries on the path to becoming FACs.

Despite the dire prognosis for forests in many countries, according to the 2010 Global Forest Resource Assessment (GFRA) of the Food and Agriculture Organization of the United Nations (FAO, 2010), 78 countries with greater than 200,000 ha of forests either maintained or increased their net forest area from 1990 – 2010 (Table 1). This group contains just over half the forest area of the world (52%). Of these countries, 59 are adding forests, including 85% [73 million hectares (Mha)] of plantation growth over the same period. Of the 78 countries, 62% are emerging or developing countries, while 8% are classed as Highly Indebted Poor Countries by the Fund (IMF, 2011). However, one trait which nearly all share is that they were at one time net forest-losing countries (FLCs).¹ Both rich and poor countries alike are already protecting

To answer these questions, studies were done using extensive literature on forest transitions (from FLC to FAC), and carried out detailed case studies of five major FACs that turned the corner from being FLCs at varying times over roughly the past fifty years – China, India, Vietnam, the Republic of Korea (ROK), and Chile. Some of them started their forest transitions as recently as twenty years ago. We found that a number of factors emerged from the case studies that are common to all five countries studied. Taking a global perspective, we assess the findings of the case studies and the implications for REDD+. Below is a summary of the findings, lessons and conclusions; details and supporting materials can be found in the main study.²

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1. We say "nearly all" since a few countries such as Bhutan, Guyana and Suriname never really felt the population and market pressures on forests that would have put them squarely in the FLC category, at least not in modern history and not in a major way such as was the case for most developed countries and the case study countries discussed below.

2. This policy brief is based on a detailed paper and set of case studies: Gregersen, Hans, Hosny El-Lakany, Luke Bailey and Andy White. 2011. The Greener Side of REDD+: Lessons for REDD+ from Countries where Forests Area is Increasing. Washington, D.C.: Rights and Resources Initiative. Available for download at www.rightsandresources.org.

TABLE 1: GREATEST GAINS IN FOREST AREA FROM 1990-2010, BY COUNTRY

Country (case studies in <i>italic</i>)	Forest area				Annual change rate						Net gain
	1990	2000	2005	2010	1990-2000		2000-2005		2005-2010		1990-2010
	Mha	Mha	Mha	Mha	Mha/yr	%/yr	Mha/yr	%/yr	Mha/yr	%/yr	Mha
<i>China</i>	157.14	177	193.04	206.86	1.99	1.2	3.21	1.75	2.76	1.39	49.72
EU-27	141.95	149.26	151.65	153.92	0.73	0.5	0.48	0.32	0.45	0.3	11.97
United States	296.34	300.2	302.11	304.02	0.39	0.13	0.38	0.13	0.38	0.13	7.68
India	63.94	65.39	67.71	68.43	0.15	0.22	0.46	0.7	0.15	0.21	4.49
<i>Vietnam</i>	9.36	11.73	13.08	13.8	0.24	2.28	0.27	2.21	0.14	1.08	4.44
Turkey	9.68	10.15	10.74	11.33	0.05	0.47	0.12	1.14	0.12	1.08	1.65
Philippines	6.57	7.12	7.39	7.67	0.06	0.8	0.06	0.76	0.06	0.73	1.1
<i>Chile</i>	15.26	15.83	16.04	16.23	0.06	0.37	0.04	0.26	0.04	0.23	0.97
Norway	9.13	9.3	9.68	10.07	0.02	0.19	0.08	0.81	0.08	0.78	0.94
Belarus	7.78	8.27	8.44	8.63	0.05	0.62	0.03	0.39	0.04	0.46	0.85
World	4,168	4,085	4,061	4,033	-8.32	-0.2	-4.84	-0.12	-5.58	-0.14	-135.34

Source: FAO GFRA 2010. For complete table, see Annex 1 in main study.

Note: ROK is a net deforester during this period (albeit a slight one, at 148,000 ha). Their main efforts to restore forests were in force in the 1970s and 1980s, and have to date resulted in 0.6 Mha more forest area and an eightfold increase in annual stocking rate (to 80 m³/ha). Furthermore, this recent deforestation is the result of a land use policy decisions, rather than a lack of sectoral governance (Gregersen 1982, KFS 2010).

Factors contributing to forest transitions in the case study countries

Here we summarize the main changes associated with the forest transitions in five major forested countries studied. Table 2 shows the change in forest area in each of the five countries over the period 1990–2010. For each country, Annexes 1-5 in the full report present data on forest cover change over the full transition periods (i.e. prior to 1990).

Principle changes associated with forest transition:

1. Fairly rapid economic growth and development were taking place at the time the forest transition occurred; but the countries were by no means “wealthy” in terms of per capita income. Even the now-industrialized ROK had a per capita GDP of only US\$ 403 when it began to address the issue in 1973,

though that figure would multiply five-fold over the next decade (World Bank. 2010. *World Development Indicators*.)

2. Major forest environment problems and/or serious wood shortages led to changes in attitude at the highest levels of government regarding the value of domestic forests, and the problems that arise with deforestation and forest degradation. Drastic increases in soil erosion and a fuelwood supply crisis in ROK spurred the government to implement a Forest Rehabilitation Project in 1973 that emphasized development of leadership and management responsibilities at the village level.
3. These changes in attitude contributed to major shifts in policies that affect forests. Such changes led to greater support for forest conservation, logging bans in natural forests, expansion of planted forests and forest land restoration, and trade liberalization. Such

shifts often occur multiple times in the process of going from FLC to FAC. For example, severe deforestation in Vietnam, driven in large part by demand for wood furniture exports, led to policies strongly favoring towards plantation expansion and greater roundwood imports. Subsequent problems with plantation investments, combined with the success of the agricultural reform, caused the government to change its emphasis again, away from plantation subsidies and towards more recognition of communal and household forest ownership.

domestic forests, and to meet rapidly expanding demands for wood (including for export). An economic reform and a process of “opening doors to the outside world” were implemented in China in 1978, which opened the door to trade in wood products and raised the importance of creating a sustainable national wood supply. In 1988, the 3rd national forest resource inventory revealed that forest cover had increased to 13 percent of the nation’s land area. With the revelation that China had some 125 Mha of forest land, the forest transition was confirmed.³

These policy shifts in turn led to :

1. *Strengthening the roles and rights of indigenous peoples and forest communities, including through major forest tenure reform.* In all cases local people, and their interests and incentives to plant trees and restore forests, became central players in the new programs and policies. Many of these changes are still ongoing or remain to be fully implemented, such as the native forest law of India. In 2006, India passed the Forest Land Rights Act after much contentious debate as it requires states to transfer tenure rights and decision-making powers to the villages and individuals who have, de facto, been using and managing the lands involved.
2. *A move towards opening up to the global forest products markets and liberalization of wood import policies, followed by rapid growth of wood imports to take pressure off*

3. *The establishment of aggressive and major programs of afforestation, reforestation and restoration of degraded lands (ARRDL).⁴* ARRDL activities are a major part of Chile’s forest strategy. The 2007 Native Forest Law calls for the restoration of at least 30,000 ha of degraded land each year into the future.

Looking at the results of the case studies and the literature on forest transition, we find some potentially helpful lessons for countries that have as of yet to go through their forest transitions; and we find lessons also in terms of the design and implementation of REDD+. Why do we think that the lessons may be helpful to current FLCs and the REDD+ process? In most cases, the FLCs like the FACs were in the past: 1.) countries with net forest loss facing population and market pressures on their forests; 2.) driven by the desire for socio-economic growth; 3.) sometimes pushed on the masses by charismatic national government leaders, and sometimes through a push from below

3. The transition actually came at different times in different regions. Thus, “from the figures, some general conclusions can be drawn: the turn from contracting to expanding forest area in the Northwest of China occurred during the late 1970s; in the North and South-Southeast the turn occurred during the early 1980s; in the Northeast and Southwest the transition started during the late 1980s and early 1990s.” (Zhang, 2000).

4. We use the acronym ARRDL in this paper for convenience and to make a clear distinction between REDD and REDD+. The ‘+’ in REDD+ has not been defined or agreed upon operationally in international debates beyond the following: “the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.” (UNFCCC, 2010).

TABLE 2. CHANGE IN FOREST AREA FROM 1990-2010 IN FIVE CASE-STUDY COUNTRIES

Country	Total Forest Area (Mha)				Planted Forest Area (Mha)				Net Gain, 1990-2010		
	1990	2000	2005	2010	1990	2000	2005	2010	Total (Mha)	Planted (Mha)	Planted (% of total gain)
Chile	15.26	15.83	16.04	16.23	1.71	1.94	2.06	2.38	0.97	0.68	70%
China	157.1	177	193	206.9	41.95	54.39	67.22	77.16	49.72	35.21	71%
India	63.94	65.39	67.71	68.43	5.72	7.17	9.49	10.21	4.49	4.50	100%
ROK	6.48	6.41	6.37	6.33	-	1.74	1.78	1.82	-0.15	0.09	-
Vietnam	9.36	11.73	13.08	13.8	0.97	2.05	2.79	3.51	4.44	2.55	57%
Total (5 cases)	252.2	276.4	296.2	311.7	50.34	67.29	83.34	95.09	59.47	44.75	75%

Source: FAO GFRA 2010. Includes both natural forests and plantations, not "other wooded lands"

Note: ROK is still included despite showing a slight decline in forest area between 1990 and 2010, as the main period of forest transition in the late 1960s and early 1970s.

from the citizens and their local leaders who seek better lives and a more equitable distribution of the right to the benefits and livelihoods that can be derived from forests and land in general.

Given the reasons above, many countries became FLCs because they saw the existing forests as standing in the way of progress. Thus, forests were cleared to make way for agriculture, towns and infrastructure projects. In other cases, they provided the income and capital for growth. In most cases, the level of governance was such that illegal logging and corruption were widespread and contributed significantly to the deforestation process.

Understanding why and how the current FACs started dealing with these sets of issues can provide useful ideas for the current FLCs and for the REDD+ process—which, of course, is aimed not only at halting deforestation and forest degradation, but also at expanding productive forest area and improving the management of existing forests.

Lessons

We identified three categories of lessons that are worth mentioning; although there are many

more "ideas" that emerge from each individual case study and the experiences of other FACs, or groups of them, that are worth considering as the FLCs move down the path of environmentally sound development. The lessons discussed in the main paper are:

1. Attention and genuine support for forest tenure reform by government at the highest levels is essential. If key government leaders don't care about the forests, or if they see them as an obstacle to development, or worse yet, as a source of personal wealth, then the transition from FLC to FAC will at best be difficult and at worst, impossible.
2. Forest governance reforms need to be part of the process of moving toward forest transition. In particular, this includes:
 - passage of strong, clear, and fair forest legislation and establishment of pro-forest policies and plans that include involvement of local people in forest governance. Logging bans and better control of logging in native forests are important tools, as are the establishment of effective protected areas.
 - forest tenure reforms are needed to create the incentive for widespread improvement of forest management,

protection and tree planting. Tenure reform also can help control illegal forest activities, if coupled with strengthened law enforcement.⁵

- strengthening of government and community monitoring, and enforcement of forest laws.

3. Major ARRDL programs are the essential backbone of expansion of forest area and improvements in growing stock. But they need to be carefully planned so they complement rather than compete with the objectives of natural forest conservation and management.

Related to these lessons for FLCs, there is also one major lesson for the global community now in the process of designing the REDD+ architecture. The relevance and importance of the lesson depends on the recognition that: (a) in a “green economy” context, the use of wood is good as a raw material substitute for alternative non-renewable, high energy intensity raw materials; and (b) demand for wood is expanding rapidly in most countries in the process of development (and certainly in the five case study countries), both to meet domestic needs and the demands of rapidly growing export markets. Given these recognitions, the lesson for the global community is stated in the conclusion of the IWG-IFR (Informal Working Group on Interim Finance for REDD) (2009): “The incentive structure (for REDD)... must have close to global coverage – an incentive structure that is attractive for one country but not others is likely to lead to international leakage.”⁶

The lesson derives from the fact that when, through REDD, countries effectively conserve their own natural forest resources and avoid deforestation at home, they will tend to expand significantly their imports of wood and forest products from other countries unless they have a mature and ready source of wood from planted forests (which was not the case in four of the five countries studied here).⁷ Increased imports means increased harvest of wood in other countries, leading to international leakage; thus, lower carbon emission savings and less effective REDD than would appear by just looking at the FAC in question. Furthermore, at least in the case study countries, much of the leakage was based on illegal forest activity, which does not benefit the exporting countries and helps to keep the international market prices for wood and wood products lower than they otherwise would have been.

Main study conclusions

The study reached a number of policy-relevant conclusions based on the analysis of the literature and why and how the five case study countries turned from having net forest losses (deforestation) to becoming countries that are adding to their net national forest resources. The four main conclusions are as follows:

1. ARRDL investment and programs to increase forest industry and fuelwood conversion efficiency are a necessary complement to successful REDD. It is no coincidence that about 85 percent of plantation area added in the world between 1990 and 2010 was in the countries that turned from FLCs into FACs.

5. By the way, such reforms also are essential for REDD, particularly in terms of benefit sharing and helping to control illegal forest activity.

6. International “Leakage” occurs when one country reduces its deforestation and degradation, which generally reduces its timber supply relative to its demand, which leads to a rapid increase in wood imports, which results in deforestation and degradation in other countries.

7. Chile had started its plantation program long before it got serious about conserving its natural forests. Thus, when that happened, it had a ready source of wood from its plantations for use in its domestic and export oriented forestry industries. New Zealand offers another example.

ARRDL activities can help to reduce international leakage in the medium to longer term. The alternative of trying to reduce consumption of wood is not likely to succeed, nor is it desirable in a green economy context. We are fully aware that there are several arguments put forth why planted forests should not be encouraged within a broad framework of REDD+. In the full paper, we have recognized these arguments and provide suggestions on how to deal with the problems that lead to the criticisms.

2. A major co-benefit from aggressively expanding ARRD programs can be a contribution to meeting Millennium Development Goal #1, poverty reduction. This contribution will be greater if ARRD initiatives are complemented by appropriate forest tenure reform and programs to: (a) strengthen and expand small- and medium-based forest enterprise development; (b) make available credit to such enterprises at reasonable cost; and (c) facilitate technology and market access.
3. Meeting the potential referred to in conclusion (2) above, in terms of the magnitude and distribution of the benefits that will be generated, will depend directly on how well countries respond in terms of improving their governance and forest tenure structures; as well as respect the rights of forest and forest-margin dwellers. This conclusion is pertinent for the success of REDD+ as well.
4. ARRD can be a means to “hedge our bets” with REDD, which may take a great deal longer than currently thought to become operational at a large enough scale to affect a real

difference at the global level. As we have seen with the case studies presented, countries that have turned the corner on their forest transition curves may have done so partly on the basis of having “exported their deforestation,” thus negating some of their claimed REDD benefits. Wood derived from planted forests currently meets more than one quarter of the industrial roundwood requirements globally. The potential is far greater. If planted forests are managed on a sustainable basis, then international leakage will be less.

The global community has every reason to move ahead at full speed to design and operationalize a global REDD+ program (that effectively addresses the causes of deforestation as well as challenges related to leakage and additionality, financing and distribution of benefits from REDD, etc.). Concurrently the global community should expand support for country programs that rehabilitate degraded and abandoned forest, agricultural and other lands, and for programs that aggressively expand their ARRD activities, such as happened in the case study countries.⁸ Whether or not ARRD activities become subsumed institutionally and administratively under the “+” in REDD+ is an international political decision. What matters most is that these activities get their due attention, not where they end up institutionally.

ARRDL activities are a necessary complement to REDD and are aimed at the same ultimate goals, which should include biodiversity protection and livelihood improvement for poor forest and forest fringe communities and indigenous peoples. REDD and ARRD complement each other in terms of their underlying governance requirements for

8. The Global Partnership for Forest Landscape Restoration (GPFLR, 2009) estimates that there are more than a billion ha. of such lands in the world today.

success – forest tenure reform and assignment of secure and self-governed rights for the use of public forest lands, control of illegal forest activity and corruption, and institutional mechanisms in place to ensure equitable benefit sharing, government accountability, and citizen voice in determining the future direction of development. Within this framework of governance reforms, effective safeguards can be established to ensure that conflicts between REDD and planted forests don't materialize in a REDD+ framework, and that the potential complementarities between REDD, ARRDL, biodiversity protection and poverty reduction are realized to the full extent possible.

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The Rights and Resources Initiative (RRI) is a strategic coalition comprised of international, regional, and community organizations engaged in development, research and conservation to advance forest tenure, policy and market reforms globally.

The mission of the Rights and Resources Initiative is to support local communities' and indigenous peoples' struggles against poverty and marginalization by promoting greater global commitment and action towards policy, market and legal reforms that secure their rights to own, control, and benefit from natural resources, especially land and forests. RRI is coordinated by the Rights and Resources Group, a non-profit organization based in Washington, D.C. For more information, please visit www.rightsandresources.org.

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