TECHNICAL SERIES
37

TROPICAL FOREST TENURE ASSESSMENT

Trends, Challenges and Opportunities

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INTERNATIONAL TROPICAL TIMBER ORGANIZATION
RIGHTS AND RESOURCES INITIATIVE

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TRENDS, CHALLENGES AND OPPORTUNITIES

ITTO TECHNICAL SERIES #37

Rights and Resources Initiative
Washington D.C.

International Tropical Timber Organization
Yokohama, Japan

Based on research prepared for the
International Conference on Forest Tenure, Governance & Enterprise: New Opportunities for Central & West Africa
May 25 – 29 2009, Hôtel Mont Fébé, Yaoundé, Cameroon

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ITTO Technical Series No 37
by Jeffrey Hatcher and Luke Bailey with assistance from Lopaka Purdy and Marina France.

The International Tropical Timber Organization (ITTO) is an intergovernmental organization promoting the conservation and sustainable management, use and trade of tropical forest resources. Its 60 members represent about 80% of the world's tropical forests and 90% of the global tropical timber trade. ITTO develops internationally agreed policy documents to promote sustainable forest management and forest conservation and assists tropical member countries to adapt such policies to local circumstances and to implement them in the field through projects. In addition, ITTO collects, analyses and disseminates data on the production and trade of tropical timber and funds projects and other actions aimed at developing industries at both community and industrial scales. All projects are funded by voluntary contributions, mostly from consumer member countries. Since it became operational in 1987, ITTO has funded close to 1000 projects, pre-projects and activities valued at nearly US$350 million. The major donors are the governments of Japan, Switzerland and the United States.

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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Front cover photo credit: A traditional Ashaninka house in Sargento Lorenz Community in Peru (R. Guevara)
Back cover photo credit: Villagers and their teak plantation in Ghana. (J. Gasana)

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FOREWORD

It is well known that addressing the drivers of deforestation is essential to guarantee the conservation, sustainable management, and adequate use of forest resources. In the tropics, this issue is even more important, as poverty is a major driver of deforestation, associated with unsustainable practices in the use of natural resources.

It has been widely demonstrated by ITTO and other partners that local communities are much more willing to sustainably manage and conserve forest resources, and do it with efficiency and efficacy if their ownership and access rights to forests and land resources are clear; and the benefits generated by sustainable forest management are shared in an equitable, gender sensitive and transparent manner.

Since 2007 the ITTO, together with RRI and other partners have strongly addressed the issue of tropical forest tenure, its trends, challenges and opportunities for the overall sustainable development and improvement of the livelihoods of local communities and indigenous groups. ITTO, with the support of its Civil Society Advisory Group (CSAG) members and other partners, has launched various initiatives and projects to improve the debate on, common understanding of and field demonstration of the policies and practices related to community forestry development in the tropics. The overall target is to build capacity at different levels – from national and central governments, NGOs, academics, the private sector, and community-based organizations – to develop and share their current knowledge in promoting community involvement in sustainable forest management. These initiatives included the joint organization with RRI and other partners of the International Conferences on Forest Tenure, Governance and Enterprises held in 2007 in Rio Branco, Brazil, and in 2009 in Yaoundé, Cameroon. These events benefited from the strong support of the Governments of the host countries, as well as from many other ITTO members and partners. ITTO and RRI are indebted to all of those institutions, experts and practitioners who shared their experiences and provided their support.

These initiatives have inspired the ITTO Thematic Programme on Community Forest Management and Enterprises (CFME), an instrument of ITTO to support consumer and producer member countries develop field specific projects in support of this very important theme.

This report was initially prepared as the background document for the Yaoundé Conference in 2009. It generated significant interest in the local, regional and international media; as well as in technical, academic and political arenas related to forests and sustainable development in the tropics, due to the relevance of the information provided in support of innovative policy making to address livelihoods and forest conservation. The report, which has been prepared under the leadership of RRI, was heavily debated in the Yaoundé Conference and beyond, resulting in the revised and improved text that ITTO and RRI are now proud to publish. I hope that the information here provided will help accelerate the understanding of and support to local communities and indigenous groups for the sustainable use and conservation of tropical forest resources, and for their improved livelihoods.

Emmanuel ZeMeka
Executive Director
International Tropical Timber Organization (ITTO)
Yokohama, April, 2011

ACKNOWLEDGEMENTS

This report was prepared by Jeffrey Hatcher and Luke Bailey with assistance from Lopaka Purdy and Marina France. The analysis in this report draws heavily from two previous RRI publications:

1. *Sunderlin, W., Hatcher, J., and M. Liddle. 2008. Fom Exclusion to Ownership? Challenges and Opportunities in Advancing Forest Tenure Reform. Rights and Resources Initiative. Washington DC.*
2. *RRI. 2008. Seeing People Through the Trees: Scaling Up Efforts to Advance Rights and Address Poverty, Conflict and Climate Change. Rights and Resources Initiative. Washington DC.*

Sunderlin et al. 2008 provide the conceptual foundations upon which this report is based and several passages of that publication have been excerpted into this report.

ITTO and RRI wish to thank the FAO for their set of work on forest tenure analyses *Understanding Forest Tenure in Africa and Understanding forest tenure in South and Southeast Asia* that have informed this report and the donors who supported the preparation of the above mentioned publications and this report: DFID, Norad, Swiss Agency for Development and Cooperation (SDC), SIDA and Ford Foundation.

Thanks also go to reviewers of this report for their helpful comments and suggestions for improvement.

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Introduction

As the world is preparing to scale up its efforts to combat global climate change, the vital role forests play in maintaining ecological, social, economic and cultural well-being is increasingly being recognized. Forest-based climate change mitigation strategies – through afforestation/reforestation, REDD or sustainable forest management – hold potential to increase the earth's carbon sequestration capacity and to reduce forest carbon emissions, which account for approximately 18 percent of anthropogenic greenhouse gas emissions.[1] The success of these strategies are, however, highly dependent on the support of forest communities and indigenous peoples that live in and depend on tropical forests. And it is increasingly being recognized that forest tenure plays a fundamental role in determining the fate of the world's forests.[2] Now, in addition to the social, economic, and environmental motivations to secure forest communities' tenure rights, aversion of widespread suffering due to climate change can be added to the list.

The goal of this report is to present and analyze the state of forest tenure in much of the world's tropical forests. Secure forest tenure is not only important for climate change mitigation – it is a basic building block of economic growth, social cohesion, personal well-being and environmental protection. While this report highlights evolutions in the geographical extent of forest ownership distribution, it also identifies some of the main challenges to the highly qualitative concept of tenure security and points out several opportunities to capitalize on recent transitions to widen the reach of local community tenure and to deepen the exercise of tenure rights.

This report updates and draws from Rights and Resources Initiative's 2008 publication From Exclusion to Ownership: Challenges and Opportunities in Advancing Forest Tenure Reforms (referred to here as Sunderlin et al. 2008)[3], which reported and analyzed the status of forest tenure distribution in the world's 30 most forested countries. Sunderlin et al. 2008 found that the forest tenure transition first identified in White and Martin 2002 – the transfer of forest land ownership from governments to indigenous peoples, forest communities and households – continued during the period 2002 to 2008. Much of the change reported in Sunderlin et al. 2008 occurred in tropical forest countries.

Sunderlin et al. 2008 found that from 2002 to 2008:

- The absolute area of public forest land administered by government in 25 of the 30 most-forested countries decreased from 2,583 Mha in 2002 (80% of the global forest estate) to 2,408 Mha in 2008 (74%).
- The absolute area of forest designated for use by communities and indigenous peoples in these countries increased from 49 Mha in 2002 (1.5% of the global forest estate) to 76 Mha in 2008 (2%).
- The absolute area of private community and indigenous land in these countries increased from 246 Mha in 2002 (7. 7% of the global forest estate) to 296 Mha in 2008 (9.1%).
- The absolute area of forest land owned by individuals and firms in these countries increased from 339 Mha in 2002 (10.5% of the global forest estate) to 461 Mha in 2008 (14%).
- The percentage of forest in developing countries either owned or administered by indigenous peoples and other forest communities increased from 22 to 27% (using data from the 15 countries with the most reliable data sets.)

For the purposes of this report, tropical forest countries are those countries that have some part of their national territory between the Tropic of Cancer and the Tropic of Capricorn. Based on the available national data, it is impossible to consistently identify and report on the tenure distribution of forest area located between the tropics. This study reports on 39 tropical forest countries whose total forest areas account for 97% of the world's tropical forest area and 47% of the global forest estate.[4] This set of countries also represents 80% of the member countries of the International Tropical Timber Council that are registered as tropical timber producers.

While recognizing the fact that vast areas of the world's forests are under customary tenure and community management, this report presents and

analyses data on formal, statutory forest tenure. The reasons for this are the same as those put forth by Sunderlin et al. 2008: "because the official view shapes policy and its implementation, because it is possible to measure recent change, and because there are profound consequences related to this change". Moreover, it is also because the statutory system is used as the basis for identifying property rights and associated rights and responsibilities, for adjudicating claims, and for establishing contracts.

The report is organized into four sections:

- Section 1 describes the historical friction between customary and statutory forest tenure. In recent decades, there appears to be a transition from exclusion to ownership as governments recognize customary tenure and confer statutory rights.
- Section 2 measures change in the forest tenure transition in 39 tropical forest countries – accounting for 97% of the world's tropical forest area.
- Section 3 discusses the challenges facing forest communities despite changes in statutory ownership of forest lands.
- Section 4 identifies some positive trends reflecting increased efforts to devolve forest land ownership and deepen the rights of communities and indigenous peoples to land and resources.
- The concluding section identifies some opportunities for extending, improving, and speeding up the process of statutory forest tenure reform.

I. Forest Tenure in the Tropics

Tenure systems define who owns and who can use what resources for how long, and under what conditions.[5] *Customary tenure systems are determined at the local level and are often based on oral agreements. Statutory tenure systems are applied by governments and are codified in state law.*

Approximately 800 million people live in forests[6] and a large but unknown number have no or weak land and resource tenure security. The reasons for this insecurity vary. Local people might enjoy rights under both customary and statutory tenure arrangements, but are unable to oppose the claims made on land and resources by outsiders. In some cases, the customary arrangements may be clear and well accepted at the local level, but statutory arrangements contradict or nullify them. And in other cases, customary tenure arrangements—for whatever reasons—are unable to serve their function.

Forest tenure security is important because it is often the foundation for the social identity, personal security, and cultural survival of indigenous peoples and ethnic minorities. Forest tenure is also important for economic reasons. It has a strong role in determining who benefits or loses in the competition for economic goods and environmental services provided by forest ecosystems. Security of tenure is often a prerequisite for capital investment by government or businesses, while conversely conflicts over forest lands discourage investment and undermine sound management. Tenure security also has a strong role in the structure of incentives that motivate protection or destruction of forests. Solid evidence exists showing that devolving ownership and management authority to local communities and households fosters improved forest conditions.[7]

Today forest areas managed under customary tenure greatly exceed the area of community and indigenous lands acknowledged by statutory tenure law. Although in many countries around the world national governments sought to eliminate customary land tenure (including but not limited to forests), these systems of local rights and management practices have (to greatly varying degrees) endured. Today most forest communities, with the exception of some that are remote, seek formal legitimacy or protection to secure their customary rights.[8]

While some progress is being made overall on the statutory recognition of customary land rights and a clarification of forest tenure, this progress in law is often not reflected in practice.[9] Even where indigenous and traditional land and property rights are recognized, their ownership rarely has the same level of protection as other private property. In addition, in areas designated by governments to community use, rights are usually either severely curtailed or come with a host of responsibilities—a step that essentially passes off the responsibility of managing a forest from government to communities without conferring commensurate benefits. The continued preference of governments for industrial concessions and indifference towards community claims, the provision of only limited access rights to communities, the tight regulation of resource use, the low capacity of governments to implement proposed programs to demarcate lands, and the limited enforcement of those legal mechanisms that do exist, all sum to a vast project of unfinished business in establishing the institutional foundations for sustainable management and conservation.

The lack of recognition of community and indigenous peoples' lands as full private property rights—private property held by a group—is deceptively important. Private rights are much more secure because they are less easily controlled or expropriated by governments or more powerful actors. Communities that hold private rights have more leverage when negotiating with governments or outside investors than those communities with long-term access rights to publicly held land. The importance of this distinction is growing quickly with the rise of markets for ecosystem services and schemes to sequester carbon. Communities with private land rights have much stronger claims to the benefits of these potential markets, and much stronger protections against exploitation, than communities and households that only have access rights to public lands.

Box 1. Why assessing tenure is important

Why assessing forest ownership is important

Understanding tenure issues and trends is essential for governments to promote sustainable use of natural resources and formulate adequate policies. Privatization and community-based forest management have brought about rapid changes in forest ownership patterns and increasingly complex stakeholder relations. However, these recent changes have not been adequately assessed. So far, only broad and limited data on forest ownership (public/private) and its implication for sustainable forest management and poverty alleviation are available. Assessment of forest ownership is thus important.

Source: FAO. 2009. Forest Tenure Assessment. http://www.fao.org/forestry/tenure/en/

Secure tenure for better management

Security of tenure is recognized as a fundamental requirement to ensuring that resources are managed sustainably. Duration, assurance, robustness and exclusivity have been identified as the main legal elements for secure tenure arrangements. This implies that tenure holders should have assurance that they will be able to benefit from the returns on their investments without interference. Any strategy to support SFM and enhance the PA role of forests should prioritize the clarification of tenure rights and mitigate factors that impinge on poor people's access to forest resources (Wiersum and Ros-Tonen, 2005).

Source: FAO. 200 Understanding forest tenure in South and Southeast Asia. Forestry Policy and Institutions Working Paper 14

II. Statutory Forest Tenure Changes in Tropical Forest Countries: 2002 to 2008

Methods

This report uses the same methodology developed for Sunderlin, et al. 2008, which built on the methods from White and Martin 2002. Sunderlin et al., 2008 developed a protocol for ensuring accuracy, for enabling comparability with the 2002 data, for resolving inconsistencies, and for providing instructions for future attempts to update the data. The protocol is shown in Annex 1.

Table 1 (on page 14) compares statutory forest tenure data for 2002 and 2008 in 39 tropical countries including 26 ITTO Producer Countries (80% of all ITTO Producer Countries), covering 47% of the area of the global forest estate.[10] The countries are listed in descending order of total forest area using the FAO *Global Forest Resources Assessment 2005* as the source of data on forest area.[11]

Tables 1 distinguishes between the *public* domain and the *private* domain of forest lands in the "legal" forest estate. The "public" and "private" domains are further subdivided into two categories, yielding four tenure categories:

- *Public lands administered by government* typically include all forests in the legal forest estate that are owned and administered exclusively by the government and that are not designated for use by communities or indigenous peoples. Note that this category includes some protected areas[12] and forest lands awarded as concessions for logging, agro-industrial or silvicultural plantations, and mining.
- *Public lands designated for use by communities and indigenous peoples* are lands set aside on a semi-permanent but conditional basis. According to the 2002 publication: "governments retain ownership and the entitlement to unilaterally extinguish local groups' rights over entire areas. Under this arrangement, local groups typically lack rights to sell or otherwise alienate land through mortgages or other financial instruments. Although the distribution of rights between government and community in this category is different in almost every country, governments invariably retain strong authority to extract and manage forest resources."[13]
- *Private lands owned by communities or indigenous peoples refers* to forest lands where rights cannot be unilaterally terminated by a government "without some form of due process and compensation."[14] In theory, private land owners typically "have rights to access, sell or otherwise alienate, manage, withdraw resources and exclude outsiders."[15] However in the real world, there are some situations where not all of these rights are awarded to private land owners, and others where some of these rights are conferred to people on public, designated for community-use forest land. For this reason, the legal right of the government to terminate a land contract without or with due process and compensation serves as the chief criterion for distinguishing public from private forest tenure. Note that in many cases where private lands are said to be owned by communities or indigenous peoples, under statutory law, the state is considered to be the ultimate owner, though the communities and indigenous peoples are recognized as the lawful right holders.
- As with the category above, *private lands owned by individuals or firms* are those where the rights cannot be unilaterally terminated by a government without due process or compensation.

Data availability limits the completion of Table 1. Many countries do not carry out routine tenure data collections, have poor or outdated cadastral information, or do not make the information public. It is promising that the FAO has created more detailed and rigorous national forest data reporting guidelines for the FRA 2010, which includes reporting on a number of different tenure and management types.[16]

Results: Transitions in Tropical Forest Tenure 2002-2008

The data presented in Table 1 and Figure 1 make it clear that the tenure shifts in tropical forest countries presented in this report are similar to, but more significant than, the changes identified in Sunderlin et al. 2008. The results presented below are based on a comparison of the 30 country cases with complete data in all tenure categories for both 2002 and 2008. These 30 complete cases account for 85% of the world's tropical forest area.[17]

The results show[18]:

- The absolute area of public forest land administered by government in 30 tropical forest countries has decreased from 1286 Mha in 2002 to 1094 Mha in 2008 (a decrease of 15%).
- The absolute area of forest designated for use by communities and indigenous groups in these countries has increased from 43 Mha in 2002 to 71 Mha in 2008 (an increase of 66%).
- The absolute area of private community and indigenous land in these countries has increased from 248 Mha in 2002 to 303 Mha in 2008 (an increase of 22%).
- The absolute area of forest land owned by individuals and firms in these countries has increased from 100 Mha in 2002 to 222 Mha in 2008 (an increase of 122%).
- In 18 of the 30 countries there was a net increase in the total area of forest land not administered by government.

Figure 1. Forest tenure distribution by tenure category in 30 tropical forest countries with complete data for 2002 and 2008 in all tenure categories

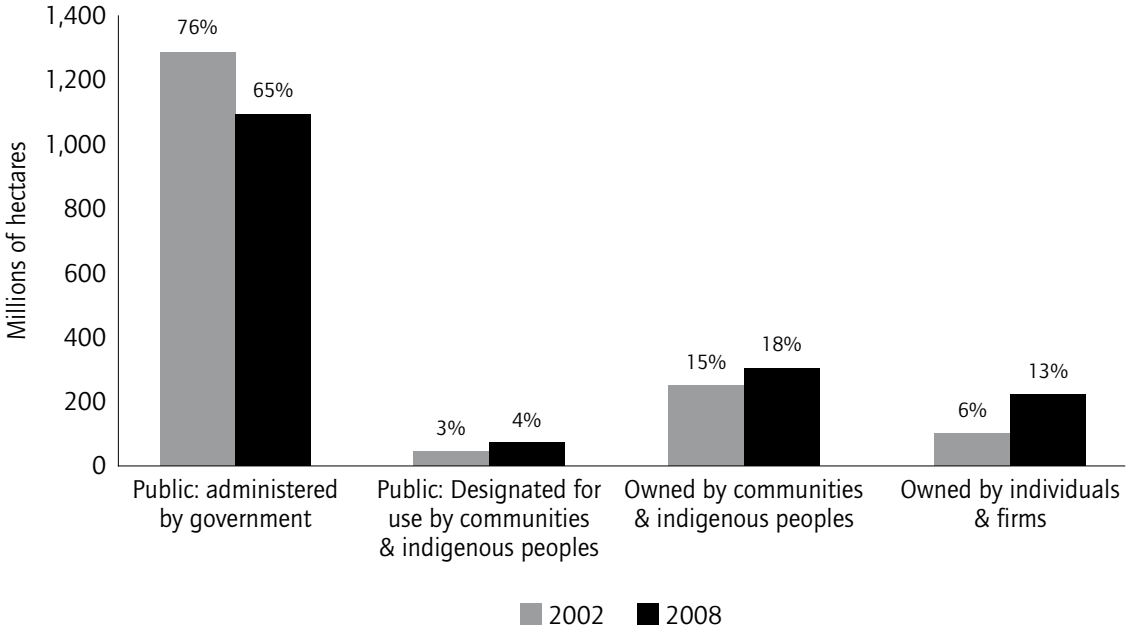


Table 1. Forest tenure distribution in 39 tropical forest countries

Notes: All figures expressed in million hectares (Mha); numbers have been rounded. Except where noted, data sources for the 2002 data can be found in the 2002 publication Who Owns the World's Forests?[19] Data for countries 1-24, 28-29, 34-35 & 38 originally reported in Sunderlin et al. 2008.

Country[20]		Public				Private			
		Government Administered		Reserved for communities & indigenous groups		Owned by communities & indigenous groups		Owned by individuals & firms	
		2002	2008	2002	2008	2002	2008	2002	2008
1	Brazil	295.26[21]	88.56[22]	11.68[23]	25.62[24]	74.50	109.13[25]	57.30	198.00[26]
2	China	76.06[27]	72.85[28]	0.00	0.00	103.50[29]	99.94[30]	0.00	0.00
3	Australia	114.57[31]	109.30[32]	0.00	0.00	13.63[33]	20.86[34]	28.68[35]	17.24[36]
4	DRC[37]	109.20	133.61	0.00	0.00	0.00	0.00	0.00	0.00
5	Indonesia[38]	104.00	121.89	0.60	0.23	0.00	0.00	0.00	1.71
6	Peru[39]	nd	42.34	8.40	2.86[40]	2.25	12.62[41]	nd	5.29[42]
7	India[43]	53.60	49.48	11.60	17.00	0.00	0.00	5.20	1.07
8	Sudan[44]	40.60	64.68	0.80	2.82[45]	0.00	0.00	0.00	0.05[46]
9	Mexico[47]	2.75	nd	0.00	0.00	44.00	38.71[48]	8.30	nd
10	Colombia	36.46[49]	33.23[50]	0.00	0.00	24.50	27.50[51]	0.00	0.00
11	Angola[52]	59.73[53]	59.10[54]	0.00	0.00	0.00	0.00	0.00	0.00
12	Bolivia[55]	28.20	22.88[56]	16.60	19.52[57]	2.80	9.04[58]	5.40	1.10[59]
13	Venezuela	49.51[60]	47.70[61]	0.00	0.00	0.00	0.00[62]	0.00	0.00
14	Zambia	44.68[63]	42.44[64]	0.00	0.10[65]	0.00	0.00[66]	0.00	0.00
15	Tanzania[67]	38.50	31.79	0.40	1.58[68]	0.00	2.05[69]	0.00	0.06
16	Argentina	5.70	nd	0.00	nd	0.00	nd	22.20	nd
17	Myanmar[70]	34.55[71]	32.18	0.00	0.04[72]	0.00	0.00	0.00	0.00
18	PNG[73]	0.80	0.26	0.00	0.00	25.90	25.51	0.00	0.00
19	CAR[74]	22.90	22.76	0.00	0.00	0.00	0.00	0.00	0.00
20	Congo	22.06[75]	22.01[76]	0.00	0.46[77]	0.00	0.00	0.00	0.00
21	Gabon[78]	21.00	21.76	0.00	0.00	0.00	0.00	0.00	0.00
22	Cameroon	22.80	20.11[79]	0.00	1.14[80]	0.00	0.00	0.00	0.00
23	Malaysia	nd	nd	nd	nd	nd	nd	nd	nd
24	Mozambique[81]	nd	17.26	nd	0.00	nd	2.00	nd	0.00
25	Guyana	15.40[82]	13.68[83]	0.00	0.00	1.40[84]	2.36[85]	0.00	0.00
26	Suriname	14.70[86]	14.70[87]	0.51[88]	0.51	0.00	0.00	0.03	0.03
27	Thailand[89]	15.04[90]	14.57[91]	0.00	0.25	0.00	0.00	1.96[92]	1.05
28	Mali[93]	nd	15.90	nd	0.71	nd	0.00	nd	0.00
29	Chad[94]	12.32	11.22[95]	0.00	0.70	0.00	0.00	0.00	0.00
30	Nigeria	13.14	11.09	0.00	0.00	0.00	0.00	0.00	0.00
31	Ecuador	9.67[96]	3.94[97]	0.00[98]	0.00[99]	2.17	6.83[100]	0.00	0.04[101]
32	Cambodia	11.48[102]	10.76[103]	0.06[104]	0.30[105]	0.00	0.00	0.00	0.00
33	Cote d'Ivoire	10.33	10.31	0.00	0.00	0.00	0.00	0.00	0.12
34	Senegal	nd	12.77[106]	nd	0.99[107]	0.00[108]	0.00[109]	0.00[110]	0.06[111]
35	Burkina Faso[112]	6.69	6.35[113]	0.23	0.39	0.00	0.00	nd	0.05
36	Honduras[114]	4.07[115]	2.60[116]	0.00	0.27[117]	0.00	0.11	1.36	1.86
37	Niger	4.74[118]	4.13[119]	0.63[120]	0.87[121]	0.00[122]	0.00[123]	0.00[124]	0.01[125]
38	Gambia	nd	0.41[126]	nd	0.02[127]	0.02[128]	0.03[129]	0.00[130]	0.00[131]
39	Togo[132]	0.49	0.37	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal (30 complete cases)		1285.86	1093.96	42.88	71.37	248.40	303.36	99.93	222.34
Total (all 39 cases)		1301.00	1188.98	51.50	76.34	294.50	356.72	130.43	227.74

Figure 2 shows that the forest tenure transition in the 30 complete country cases is also evident in the numbers of countries experiencing change:

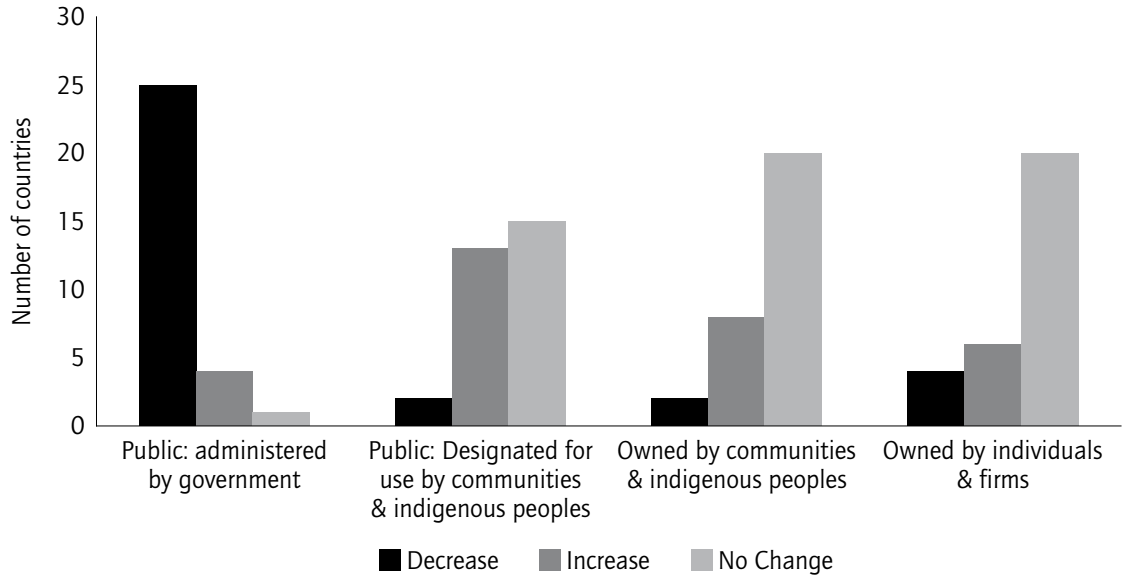
- 25 countries experienced a decrease in the area of land administered by government, 1 country experienced no change, and 4 countries saw an increase.
- 13 countries experienced an increase in the area of forest land designated for communities and indigenous peoples, 15 countries experienced no change, and 2 countries saw a decrease.
- 8 countries experienced an increase in the area of forest land owned by communities or indigenous peoples, 20 countries experienced no change, and 2 countries saw a decrease.
- 8 countries experienced an increase in forest land owned by individuals or firms, 20 countries experienced no change, and 4 countries saw a decrease.
- "No change" is the dominant pattern in the three tenure categories other than "administered by government."

Regional results for which there is complete data in 2002 and 2008:

Africa (accounting for 84% of African tropical forests[133])

- The absolute area of public forest land administered by government in 14 African tropical forest countries has increased from 423 Mha in 2002 to 455 Mha in 2008 (+8%).[134]
- The absolute area of forest designated for use by communities and indigenous groups in these countries has increased from 1.83 Mha in 2002 to 7.67 Mha in 2008 (+320%).
- The absolute area of private community and indigenous land in these countries has increased from 0 Mha in 2002 to 2.05 Mha in 2008.
- The absolute area of forest land owned by individuals and firms in these countries has increased from 0 Mha in 2002 to 0.24 Mha in 2008.
- In 8 of the 14 countries there was a net increase in the total area of forest land not administered by government.

Figure 2. Number of countries experiencing an increase, decrease, or no change in the total forest area under each tenure category



Source: 30 tropical forest countries with complete data for 2002 and 2008 in all tenure categories.

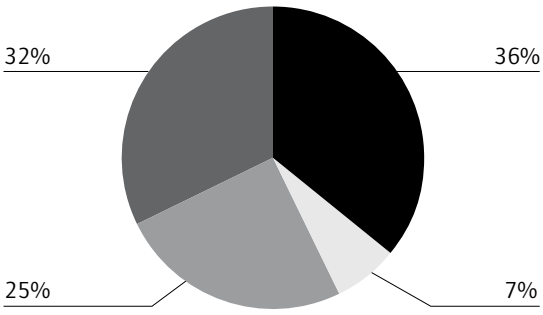
Asia (accounting for 90% of Asian tropical forests[135])

- The absolute area of public forest land administered by government in 8 Asian tropical forest countries has virtually remained constant, shifting from 410 Mha in 2002 to 411 Mha in 2008.
- The absolute area of forest designated for use by communities and indigenous groups in these countries has increased from 12 Mha in 2002 to 18 Mha in 2008 (+45%).
- The absolute area of private community and indigenous land in these countries has increased from 143 Mha in 2002 to 146 Mha in 2008 (+2%).
- The absolute area of forest land owned by individuals and firms in these countries has decreased from 36 Mha in 2002 to 21 Mha in 2008 (-41%).
- In 4 of the 8 countries there was a net increase in the total area of forest land not administered by government.

Latin America (accounting for 82% of Latin American tropical forests[136])

- The absolute area of public forest land administered by government in 8 Latin American tropical forest countries has decreased from 453 Mha in 2002 to 227 Mha in 2008 (-50%).

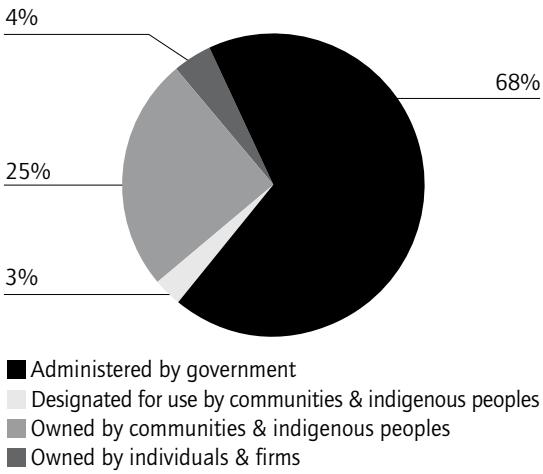
Figure 3. Forest Tenure Distribution in Latin America, 2008



Note: 8 complete cases: Brazil, Colombia, Bolivia, Venezuela, Guyana, Suriname, Ecuador, Honduras. Accounts for 82% of tropical Latin American forests.

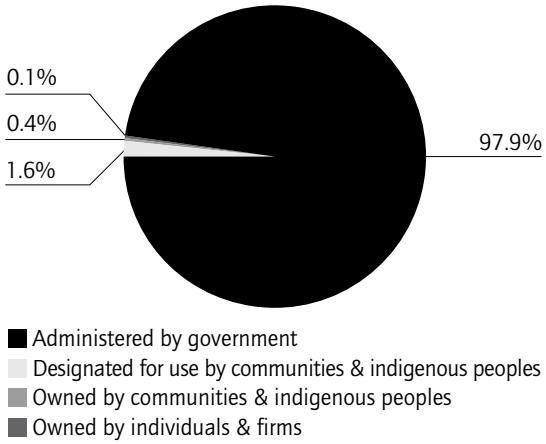
- The absolute area of forest designated for use by communities and indigenous groups in these countries has increased from 29 Mha in 2002 to 46 Mha in 2008 (59%).
- The absolute area of private community and indigenous land in these countries has increased from 105 Mha in 2002 to 155 Mha in 2008 (47%).
- The absolute area of forest land owned by individuals and firms in these countries has

Figure 4. Forest Tenure Distribution in Asia & Pacific, 2008



Note: 8 complete cases: China, Australia, Indonesia, India, Myanmar, PNG, Thailand, Cambodia. Accounts for 82% of tropical forests in Asia and the Pacific.

Figure 5. Forest Tenure Distribution in Africa, 2008



Note: 8 complete cases: DRC, Sudan, Angola, Zambia, Tanzania, CAR, Congo, Gabon, Cameroon, Mozambique, Chad, Nigeria, Cote d'Ivoire, Niger, Togo. Accounts for 84% of African tropical forests.

increased from 64 Mha in 2002 to 201 Mha in 2008 (+214%).

- In 6 of the 8 countries there was a net increase in the total area of forest land not administered by government.

Discussion of the Table 1 results

The data presented in Table 1 makes it clear that the gradual transition from government ownership to community and household ownership has continued in tropical countries since 2002. The data presented in Table 1 covers 85% of the world's tropical forest countries. There are several important considerations to make that help explain some of the shifts that are relevant here. It should be pointed out that:

- Decreases in forest land administered by governments might be explained by a decrease in the total forest area of the country due to deforestation or differences in inventory techniques;
- In areas where forest lands administered by governments have increased it is possible that this increase is explained by difference in forest inventory techniques. This is not likely applicable to lands designated for or owned by communities and indigenous peoples because these areas are more precisely measured as part of the titling or use right certification or gazetting process, but it might explain the increased government-administered areas in DRC and Indonesia;
- Much of the significant transfers from government to community or households and firms that affect the overall global and regional trends occurred in a handful of countries. The large changes to Brazil's forest tenure distribution account for a significant amount of the increases in lands designated for and owned by communities and indigenous peoples and lands owned by individuals and firms. The changes in Brazil do not, however, explain most of the change except under the individuals/firms category.[137]
- In many tropical forest countries there was very little or no change in the areas of forest lands designated for or owned by communities.

Global results versus tropical forest country results

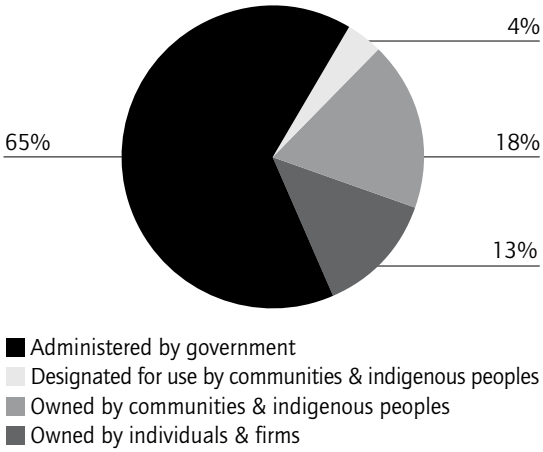
The trends identified in White and Martin 2002 and Sunderlin et al. 2008 hold for the tropical forest countries presented in this report. It is also clear that the main drivers of the global tenure transition are tropical forest countries. The table below presents the 2008 tenure distribution in tropical forest countries and globally. The differences in tenure distribution can be explained by the inclusion of Russia (which holds 22% of the world's forests and where all forests are administered by the government) in the global distribution. The global assessment also included highly forested non-tropical countries that have or are in the process of devolving forest ownership to indigenous peoples, forest communities and households, such as Canada (10% of the world's forests), the United States (8% of the world's forests), Sweden and Finland.

The progress in expanding the geographic extent of community and household tenure must be tempered with the understanding that the expansion of area under legal ownership of communities and individuals and firms does not necessarily imply the deepening of these peoples' rights to fully use, manage and profit from their forest lands. The next two sections will discuss these issues in more detail.

Table 2. Forest tenure distribution: global versus tropical, 2008

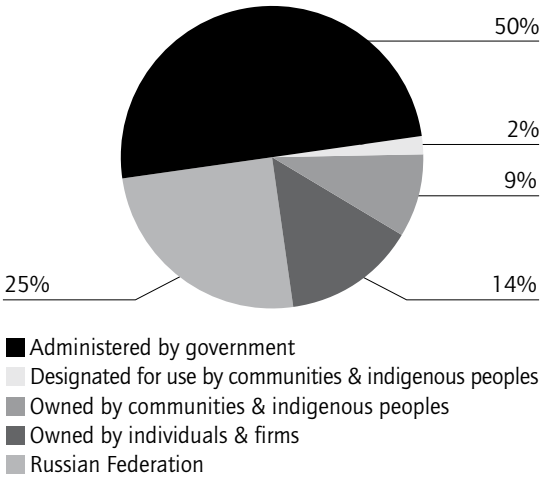
	Administered by government	Designated for use by communities and indigenous peoples	Owned by communities and indigenous peoples	Owned by individuals and firms
Global	75%	2%	9%	14%
Tropical	65%	5%	18%	13%

Figure 6. Forest Tenure Distribution in Tropical Countries, 2008



Note: 30 complete cases, as listed in Table1. Accounts for 85% of the world's tropical forests.

Figure 7. Global Forest Tenure Distribution, 2008



Source: Sunderlin et al. 2008.
Note: 25 complete cases. Accounts for 82% of the world's forests. Russia represented separately due to size -- all Russian forests are government administered.

III. Some Challenges Despite the Advances in Statutory Recognition of Forest Tenure Rights

Despite some progress is being made on the statutory recognition of customary land rights and a clarification of forest tenure in tropical countries, this progress in law is often not reflected in practice.[138] Even where indigenous and traditional land and property rights are recognized, their ownership rarely has the same level of protection as other private property. In addition, in areas designated by governments to community use, rights are usually either severely curtailed or come with a host of responsibilities—a step that essentially passes off the responsibility of managing a forest from government to communities without conferring commensurate benefits. The continued preference of governments for industrial concessions and indifference towards community claims, the provision of only limited access rights to communities, the tight regulation of resource use, the low capacity of governments to implement proposed programs to demarcate lands, and the limited enforcement of those legal mechanisms that do exist, all sum to a vast project of unfinished business in forest tenure reform.

Private ownership of forest lands by indigenous peoples or communities does not always safeguard and promote the newly-recognized. Examples from Sunderlin et al. 2008 will serve to illustrate this point:

- In *Peru*, there is substantial overlap in the areas of habitation of indigenous peoples, remaining natural forests, and mineral ores.[139] Beginning

Box 2. Joint forest management's mixed results

In most of the African countries included in the study, forest legislation makes provisions for establishing community forestry and/or implementing joint forest management (JFM) of forest resources (Cameroon, Senegal, Gabon, the Gambia, Ghana, Tanzania, Uganda). Most of the agreements that regulate these mechanisms do not foresee any transfer of ownership, but stipulate a sharing of responsibilities and benefits. In many situations, such as in Gabon, Uganda and Cameroon, the transfer is very limited, however, or even merely "on paper": the main constraints are a lack of capacity to implement the requirements of the law, and resistance to sharing power.

Successful examples of JFM are found in Senegal, Ghana and Tanzania. The agreements usually foresee the existence of a management plan and have resulted in improved forest conditions, conservation of biodiversity, reduction of illegal activities, and an increased sense of responsibility. It is also noteworthy that significant support from the government, particularly local authorities and decentralized forest administrations, has been provided.

However, none of these mechanisms have demonstrated clear positive impacts on economic conditions for the local population, mainly because the forests under JFM are primarily designated for conservation or restoration purposes rather than economic ones. Despite this lack of direct incentives, local populations participate in these management schemes, probably because of their increased role in decision-making. In the three successful cases (Senegal, Ghana and Tanzania), local communities have a greater role in decision-making regarding resource use than they do in other countries. Local communities also gain limited economic benefits. In Senegal, they receive part of the fines collected for non-compliance, and can commercialize some forest resources. In Tanzania, however, the economic incentives are so limited that the success of the JFM programme is being undermined. Although some of these approaches appear to function, it is questionable that they will remain sustainable in the long term, unless additional incentives are provided.

Source: Romano, F. and Reeb, D. 2008. Understanding forest tenure in Africa: opportunities and challenges for forest tenure diversification. Forestry Policy and Institutions Working Paper 19. FAO Rome.

in the early 1990s, Peru experienced a dramatic increase in mining investment by national and international companies; mining (mainly gold and copper) accounted for more than half of foreign exchange income in 2005.[140] The government gave easements to mining investors and in so doing rescinded protections of collective land titles.[141] With the recent increase in the price of oil, the government of Peru has allocated about 80 percent of the country's Amazon forests for oil and gas exploration.[142]

- In *Liberia*, even communities with formal title to customary properties, almost all of which have substantial forests, have no rights to the trees on that land.[143] Moreover the law states

Box 3. Saramaka People versus Suriname: A victory for indigenous peoples' rights

The Saramaka people live in 9,000 square-kilometers of rainforest. In 1963, they lost almost 50 percent of their traditional territory to a hydroelectric dam built to power an Alcoa bauxite factory. Many Saramaka were displaced and remain in resettlement camps to this day. Others established new villages on the Upper Suriname River. In the late 1990s, the Surinamese government allowed logging companies to set up speculation projects and camps in the region, against Saramaka wishes. Further, extensive flooding caused by faulty creek bridging rendered a large area useless for traditional agricultural and other activities, thus depriving the Saramaka of an additional 10 percent of their territory.

Once they determined that the threat affected all Saramaka, including almost 70 villages on the Upper Suriname River comprising about 25,000 people, these meetings expanded to include all Saramaka communities. The communities established the Association of Saramaka Authorities (ASA) in order to better defend their lands and promote their rights. ASA filed a petition with the Inter-American Commission on Human Rights (IACHR) in October 2000. During and following the filing of the petition, ASA collected information that showed the impact on the Saramaka from logging and the threat of "irreparable harm" if the IACHR failed to act. In 2002 and again in 2004, the IACHR requested that Suriname suspend all logging concessions, mine exploration and other natural resource development activity on lands used and occupied by the Saramaka until the substantive claims raised in the case were investigated. It also requested that the Surinamese government take appropriate measures to protect the physical integrity of the Saramaka people. When the Suriname government failed to completely suspend the projects and comply with the other recommendations of the IACHR, the IACHR took the claim to the Inter-American Court, a legally binding body of which Suriname is a member.

The judgment of the Court in Saramaka People v. Suriname not only provides the basis for the legal recognition and protection of Saramaka territory, with respect to land rights and prior informed consent, but also creates a legal framework for the rights of all indigenous and tribal peoples in Suriname. Pursuant to the Court's orders, this includes "their rights to manage, distribute, and effectively control such territory, in accordance with their customary laws and traditional collective land tenure system." In January 2008, the Suriname government publicly declared that it would fully implement the judgment of the Court.

The Saramaka ruling is also significant at an international level. In the ruling, which applies across the hemisphere, the Court held that resource exploitation concessions may only be granted in indigenous or tribal territories subject to four conditions: indigenous and tribal peoples' effective participation must be secure; there must be reasonable benefit-sharing; there must be a prior environmental and social impact assessment; and states have a duty to implement adequate safeguards and mechanisms in order to ensure that these activities do not significantly affect the traditional lands and natural resources of indigenous and tribal peoples.

Source: The 2009 Goldman Environmental Prize. http://www.goldmanprize.org/pressroom/southcentralamerica_2009

explicitly that the people on those lands are unable to object to logging on their own lands. Their consent is not required for leasing of their lands, for up to 35 years, for logging or salvage.[144]

- In *Papua* New Guinea, although forest people are constitutionally endowed with property rights over the forests they live in,[145] they have become victims of a government-led process of allocating forests to industrial timber concessionaires. There has frequently been failure to obtain informed consent from communities before logging, and given limited and weak community capacity, community leaders themselves are sometimes not representative or held accountable.[146] There have been widespread human rights violations in cases where forest owners object to the

Box 4. Renewing Community Tenure in Liberia

As Liberians account for the years of extreme violence that destabilized their nation, the question of who owns the forest rings loudly. The competition for Liberia's precious natural resources and the lands they are extracted from, began in earnest with the 1821 arrival of American colonists. By 1847, the entire coastline of the region and areas 40 miles inland were owned by colonization societies, many lands having been bought from local chiefs who unilaterally sold customary lands without permission from their communities (Wily 2008 24). Between 1924 and 1960, several chiefdoms were able to secure title to nearly 1 million ha of land registered under community ownership. Despite some gains in community ownership, there were still heavy losses of customary lands due to the implementation of the 1956 Aborigines Law, which stated that rural Liberians were no longer guaranteed "right and title" to their land but instead the right of use of "public lands" (Wily 2008 25). A recent ITTO diagnostic mission reaffirmed that customary land and resources rights of many rural communities have been systematically ignored and undermined by a high powered elite throughout Liberia's 150-year history (ITTO 2005 106).

In the 2000 National Forestry Act, Charles Taylor, then president of the Republic, established a statutory dislocation of forests from forest lands, in other words, that while communities may own the land on which trees grow, the trees themselves belong to the State (Wily 2007 235). Following the end of the civil war in 2003, Liberians have begun to approach the question of forest tenure with vigor and interest. A renewal of customary land tenure as a central component to forestry management has spurred the drafting of a Community Rights Law. The new Law, which has yet to be signed into law by the President, is rooted in recognition that the natural forest resource as a whole is community-owned and that the legal separation of trees from the soil from which they grow must be revoked (Wily 2008 27). In order to nullify any provision for community oversight, an attempt to secretly modify the law was made by the Forest Development Authority. Fortunately, these modifications were uncovered and an earlier and far more equitable draft of the Community Rights Law with Respect to Forest Lands, was passed by the Liberian Senate on 11 September 2008 (Wily 2008 28). Apparently, even influential parties in the logging sector are supporting community rights based on 15 years of industry knowledge and an understanding that to re-activate a concession system which denies local ownership of the resource base would be counter-productive (Wily 2008 27).

Sources:
ITTO. (2005) Status of Tropical Forest Management 2005. Yokohama.

Wily, Liz Alden. (2007) *'Who Owns the Forests': An investigation into forest ownership and customary land rights in Liberia.*
http://www.rightsandresources.org/documents/files/doc_102.pdf

Wily, Liz Alden (2008) *Whose Land Is It? Commons and Conflict States: Why the Ownership of the Commons Matters in Making and Keeping Peace.* http://www.rightsandresources.org/documents/files/doc_853.pdf

practices of the industrial concessionaires.[147] Politicians and the police have tended to side with the interests of the industrial loggers. Promised financial benefits from logging are either not delivered, or if delivered, were too small.[148] One key result is that sustainable forest management is by and large not taking place, and many reforms are necessary to establish the institutional conditions for sustainable management.[149]

Forest access rights provided on areas designated for use by communities and indigenous peoples also sometimes fail to fulfill the goals they were designed to achieve:

- In *Brazil*, extractive reserves covering more than 12 Mha of Amazonian lands have been created to secure the rights of traditional rubber-tapping communities while promoting forest conservation.[150] These communities are given use rights to delimited areas of federal forest lands for the extraction of forest products and subsistence agriculture. However, tenure security and resource access is not fully guaranteed as the land tenure regularization process in extractive reserves is rarely concluded. Moreover, the government agency responsible for supporting the residents and regulating land use within the reserves is failing to prevent incursion on reserve lands. The agency enforces a regulatory framework based on strict conservation models, which restricts residents' forest product sales.[151] Moreover, in the absence of adequate government protection, the pressures from illegal mineral exploration,[152] land sales, logging and cattle ranching are threatening community livelihoods.[153]
- In *Tanzania*, a Joint Forest Management (JFM) model has been promoted in central government forests reserves that have high biodiversity value. Unfortunately, participants in JFM find that the legal benefits from the forests are very restricted because of the high conservation status of the forests. JFM introduced into central government forest reserves that are managed for productive purposes has also stalled due to the government's failure to share timber royalties with communities co-managing the forest. Some observers have criticized the Tanzanian JFM model, saying the management costs imposed on communities far outweigh the tangible benefits that can be realized.[154]
- In *India*, the Joint Forest Management (JFM) program, which covers 27 percent of the national forest area and 85,000 village committees, has failed to realize the potential of forests to support the livelihoods of participants.[155] The current JFM model is weighted in favor of state forest department control; many communities view JFM as top-down and imposing external rules that ignore existing management institutions.[156] As explained in a World Bank report: "The JFM benefit-sharing system is overly complex, has high transactions costs, and is focused on a narrow range of revenue generation options at the primary resource level."[157]

Broader governance reforms are necessary for effective tenure reforms

There are also many non-tenure rights and accountability mechanisms that are essential for forest peoples' well-being and for the conditions and incentives to be in place for forests to be sustainably managed. First and foremost among these is the right to citizenship. Many forest peoples lack citizenship and therefore have no legal personality to pursue formal recognition of their property rights. Forest peoples are also often denied the right to free, prior, and informed consent to external claims on their natural resources. Similarly, forest people often lack the right to redress and rule of law, which are key to just resolution of contested claims and conflicts.

International laws require the recognition of customary systems of ownership, national-level legal regimes often provide for inappropriate titling, the parcelling of communal lands into individual titles, or titling to only small parts of more extensive communal territories. In addition to serious limitations on land rights and limited respect for customary governance systems, such regimes often fail to provide legal recognition to local people, including indigenous people, as individual citizens, communities or peoples. An estimated 15 million people globally are effectively stateless because they lack birth certificates or civil registration.[158] These problems are particularly acute in rural forest areas: many among the 'hill tribes' of Thailand and the 'Pygmies' of Central Africa, for example, lack papers to prove citizenship and so are unable to secure rights

to their ancestral lands or to effectively engage as citizens. Cases brought to the UN Committee on the Elimination of Racial Discrimination and the Inter-American Court of Human Rights show how, contrary to the obligations of countries under international law, the rights to forest people's lands are routinely handed over to third parties without the people's consent through the overzealous application of the state's power of eminent domain.[159]

The mandates and programs of forest agencies, generally designed to generate financial revenues to government through commercial harvesting and to establish public protected areas, are often at odds with the human, civil and political rights of local people specified in national constitutions and land laws. They also often contradict the requirements of Article 10c of the Convention on Biological Diversity, which requires governments to protect the customary use of biological resources and to encourage measures compatible with conservation and sustainable use. Basic problems of governance compound the problems of forest communities. Whereas international law recognizes that victims of human rights abuses have a right to redress, in practice many forest people find they are denied access to justice and the protection that should be afforded by the rule of law. The inevitable result is that rural communities and indigenous peoples are too often forced into extra-legal means of surviving and asserting their rights, leading to conflict, repression and further abuse.[160]

Addressing the rights of women is a particularly challenging problem related to forest tenure, and tenure in general. This issue has roots not only in law and politics, but also in culture. Within households, men often dominate decision-making processes, divert income for their own benefit, and regulate access rights to natural resources, just as local elites can within the community. Women face daily discrimination and hardships despite the vital role they play to ensure community and household well-being. The extension of statutory tenure rights to communities and households does not mean women will enjoy the benefits of full citizenship and equity.

In many tenure systems, both customary and statutory, women must rely on their male relatives for access to natural resources. In statutory systems men are often the only ones to receive land titles, while in customary systems women are often denied inheritance rights and must remarry to gain access to land and resources.[161] Women often have little control over income-generating assets, and their movements and freedoms are often heavily restricted.[162] Women's literacy rates are generally lower than men's are worldwide, which can greatly reduce their ability to understand their rights and interact with statutory institutions to claim their rights.[163] Following violent conflicts, women often become heads of households yet find difficulty claiming tenure rights without the support of male relatives.[164]

Finally, growing populations in rural areas across the developing world increase the scale of many of these challenges. According to the World Development Report 2008, the size of these rural populations will grow until 2020, with South Asia declining only after 2025 and Africa after 2030 at the earliest.[165] This will force declines in average farm size and increases in landlessness and thereby increase pressure on forests and the customary regimes that protect them.

Industrial concessions continue to dominate over indigenous and community ownership and use in tropical forested countries

Demands on forest lands are growing at an unprecedented pace. These demands include agro-industrial and silvicultural plantations, pasture lands, natural forest concessions, mines, and in some places carbon. Forest lands are becoming commodified in some countries. More forests are being set aside for conservation. With population growth and migration, more forest lands are being colonized as part of agrarian reforms and spontaneous occupations.

Clarification of tenure rights should precede this growing demand on forest lands, but unfortunately, it is lagging far behind. Without progress in specifying property rights, conflict over forest lands is growing. A review of current and anticipated demands on forest lands underscores the point that governments must urgently address the problem.

Concessions are tracts of land granted to industrial firms or other groups by the government for a stated purpose and a limited period of time. Concessions on forest lands are often granted to industry for logging, harvesting nontimber forest

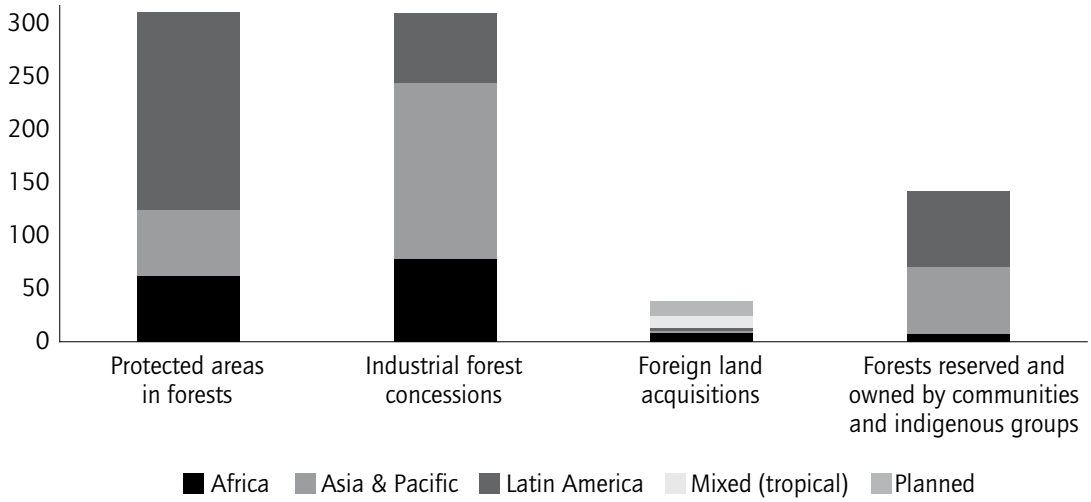
products, mining, exploration for and exploitation of oil and gas, and agricultural production. In some cases, concessions for community forestry or for conservation provide legal protection to forest resources and the livelihoods dependent on them. In Table 1, virtually the entire area of concessions is classified under the heading "administered by government."[166]

Table 3 and Figure 8 below present the area of concessions awarded on forest lands in all central African ITTO producer countries except the Republic of Congo. This data on concessions cannot be assumed to be complete because of the poor availability of data, yet the basic situation is evident: industrial concessions are orders of magnitude larger than the areas legally recognized as

Table 3. Concession data for 5 Central African ITTO Producer Countries, 2008

Country[167]	Forest lands under concession (Mha)	Total of forest lands designated for and owned by communities and indigenous groups (Mha)	Comments
DRC	22.91 (timber)[168] 6.90 (diamond)[169] 3.70 (mining)[170] **Total: 33.51**	**0.00**	Timber concessions are allocated to companies from Liechtenstein, Portugal, Switzerland, Lebanon, Belgium, Italy, China, and India.
CAR	3.40 (timber)[171] 1.97 (diamonds)[172] **Total: 5.37**	**0.00**	Timber concessions allocated to companies from China, Lebanon, France, and Malaysia.
Congo	7.36 (timber)[173] 1.28 (copper and diamond)[174] **Total: 8.64**	**0.46**	Timber concessions are allocated to companies from Germany, Denmark, China, Italy, and Lebanon.
Gabon	6.98 (timber)[175] 9.90 (diamonds)[176] 0.23 (gold)[177] 1.81 (oil and gas)[178] **Total: 18.92**	**0.00**	Timber concessions allocated to companies from France, Switzerland, Malaysia, China, Portugal, Italy, and Denmark. Most oil and gas is offshore.
Cameroon[180]	4.95 (allocated timber) 1.15 (unallocated timber) 0.30 (gold)[181] **Total: 7.26**	**1.14**	Timber concessions allocated to companies from China, France, Italy, Lebanon, and Netherlands.
Total	**73**	**1.6**	

Figure 8. Comparison of the area of industrial concessions and community forest land in the Central African ITTO Producer countries



designated for communities and/or indigenous peoples. In the 5 Central African countries listed in Table 3 (Cameroon, Central African Republic, Congo, Democratic Republic of Congo and Gabon), there are at least 73 Mha of concessions on forest lands for timber and mineral exploitation compared to 1.6 Mha of forest land designated for use by communities.

Weak performance of government in advancing reforms

Even assuming there is political will for government to recognize rights and carry out tenure reform, this does not ensure success. There must be adequate administrative capacity and implementation within the various branches of government to demarcate, delimit, and enforce forest tenure rights. The major deficiencies fall into four areas: failure of coordination among branches of government; budget constraints; lack of expertise; and problematic content of policies.

Efforts to strengthen local forest tenure have been slowed or paralyzed by failure of coordination among branches of government. This can take the form of horizontal gridlock (between or among sectors and ministries) or vertical gridlock (between or among levels of government). Among the problems that can block progress are: disagreement over limits of jurisdiction; overlapping authority over the same area of land; policies that are mutually incompatible; inability to focus on forest land tenure because other issues take precedence; corruption; and budget constraints which can make any of these problems worse.

Budget constraints are a fundamental problem because they can slow, stop, or undermine the quality of forest tenure reform at all levels. In Bolivia, insufficient budgetary support for completing community and indigenous land regularization and titling pose a threat to local rights and livelihoods.[182] In Uganda, inadequate fiscal support from the national government has been a contributing factor to the inability to fully implement decentralized forest management.[183]

Implementation of tenure policies and of efforts to improve local tenure rights requires a wide range of

Box 5. Escalating demand for Cambodia's limited land base

Cambodia's forested regions are amongst the most endangered. In 2006, FAO reported that 100% of forested lands were owned by the state with 32.3% of forests for production, 3.9 for protection, and 21.3 for conservation. In 1999 there were 30 active government forest concessions (Sophal 2001 15) and as of 2007, 21% of Cambodian land has been granted as forest concessions (qtd. in STAR 2). Forest concessions are contributing to rural landlessness which went from 13 percent in 1997 to 20 percent in 2004. Some Cambodia based analysts believe that current landlessness is likely to be close to 30 percent (Guttal 4). There have also been reports that state forest authorities are "reclaiming" forest lands that have been used for local agricultural subsistence for several years. It is thought that these lands are being repossessed by the state which in turn will pass on the lands to private companies and individuals as economic concessions (Guttal 6). As more local and indigenous peoples are alienated from their lands and forests, internal and perhaps transnational migration of landless persons and families are sure to further exacerbate urban overpopulation and its associated social stresses.

FAO. (2006) The Global Forest Resources Assessment 2005. Rome. http://www.fao.org/DOCREP/008/a0400e/a0400e00.htm

Guttal, Shalmali. (2006) "Land and Natural Resource Alienation in Cambodia." *Focus on the Global South*. http://www.rightsandresources.org/documents/files/doc_414.pdf

Sophal, Chan, Tep Saravy and Sarathi Acharya. (2001) *Land Tenure in Cambodia: a Data Update.* Working Paper 19. Cambodia Development Resource Institute. http://www.cdri.org.kh/webdata/download/wp/wp19e.pdf

STAR Kampuchea Organization (2007). "Landlessness and land conflicts in Cambodia." Newsletter. http://www.landcoalition.org/pdf/07_r%5Bt_land_cambodia.pdf

skills that are often lacking, especially in the lower echelons of government. Inadequate funds and knowledge often accompany the transfer of administrative responsibilities from higher to lower levels of government. In India's forest sector, for example, the government suffers from a wide variety of capacity deficiencies including the ability to conduct mapping and forest resource assessments; moreover, the geographic area of responsibility of the field staff is too large, and there is limited capacity for conducting financial and economic analysis on behalf of communities.[184]

In addition to constraints on improving land rights, governments frequently hesitate to reform the regulatory system, which diminishes rights to use and benefit from forest lands.[185] Forest management arrangements are frequently

Box 6. State of implementing land rights and devolving land ownership in Guatemala

Land ownership is a constant desire of Guatemala's poor rural peasants and indigenous peoples. In recent years, the only distributional mechanism has been market-assisted agrarian reform, which has had little impact on the distribution of land (Larson 2008 5). In a country that was once thickly covered with moist tropical forests, many of these regions are now home to sugar, banana and rubber tree plantations, and cattle ranches (ITTO 2005 231). An estimated 38% (1.5 million hectares) are privately owned, 34% (1.4 million hectares) are national forests and about 930,000 hectares are municipally/communally owned (ITTO 2005 232). Indigenous peoples, forest communities, and poor rural sectors are engaged in a mix of land relationships including community concessions, private ownership (with or without legal title) and cooperatives (Larson 2008 7). Land policies established in both colonial and post-colonial periods have resulted in a significant loss of indigenous lands. The ownership of land in Guatemala is very centralized with 8 percent of the population owning 77.5 percent of the land and at the other end, 45.7 percent of the population holds only 3.2 percent of land, in farms averaging 0.3 hectare; another 47.3 percent holds 18.6 percent in farms averaging 1.8 hectares (qtd. In Larson 2008 7). The acknowledgment of customary land tenure continues to be a struggle in the face of developing industrial concessions.

Colonization and forest concession policies have pitted indigenous populations, mestizo colonists, and national and international industry against one another (Barry 2008 34). Guatemala's 1985 Constitution, affirms that the State is responsible for protecting the lands of cooperatives, indigenous communities or any other form of communal or collective property, and the legislation also establishes that those who have historical territories will maintain them. Nevertheless, the legislation that should regulate indigenous communities' lands (Art. 70) has never been passed, though Guatemala has also signed ILO Convention 169 and promised the regularization of land tenure and the restitution of communal land in the Peace Accords (Larson 2008 7). Without government recognition and implementation of these statues, indigenous peoples and forest communities will continue to live in poverty. Poor rural indigenous households in forested regions are today primarily subsistence agriculturalists and also work as seasonal laborers in coffee and sugar plantations, ecotourism, and with timber and non-timber extraction (Barry 2008 35). The absence of legal recognition of customary tenure has altered the ability for forest dependent peoples to live in accordance with their traditional practices of agriculture, subsistence, culture, and economy.

Barry, Deborah and Peter Leigh Taylor. (2008) An Ear to the Ground: Tenure Changes and Challenges for Forest Communities in Latin America. Rights and Resources Initiative and CIFOR. http://www.rightsandresources.org/documents/index.php?pubID=929

ITTO. (2005) Status of Tropical Forest Management 2005. Yokohama.

Larson, Anne. (2008) Guatemala Country Case Study. LLSL Case Study Series. Rights and Resources Initiative.

http://www.rightsandresources.org/documents/index.php?pubID=790

Box 7. (Re) privatization of land tenure in Honduras

The tumultuous implementation of agrarian reform in Honduras has had significant impact on forest-dependent communities, small-share landholders, indigenous peoples, and rural farmers/peasants. Although 80-87% of Honduras land area is classified as "most suitable" for forestry, national forestry concerns have always been subsumed under agriculture (Larson & Ribot 2007 6). The 1960s saw a rise in rural population and parallel land dispossession fueled by new profit-making opportunities for large landowners (Brockett 1998 189). In 1975, an agrarian reform, Decree Law 170, went into effect, promising to redistribute lands by establishing a land ownership ceiling and land productivity criteria for private land owners (Brockett 192). Slow government implementation of the reform allowed large land owners to divide and bequeath lands to kin and to graze previously unused lands, thus dispossessing peasants and indigenous peoples of lands they had used for generations (de Janvry 1998 7). Forest laws kept all lands with "forest suitability" under state ownership, and declared all trees State property. Social forestry programs of the 1970s organized rural producers into timber or resin cooperatives, including some indigenous federations in eastern Honduras, and including cooperative-public partnerships leasing tree rights on private lands (Utting 1993). With Canadian support, the government experimented with forest and agricultural stewardship of poor settlers in the tropical forest margins, to combat illegal extraction, protect forests, and foster sustainable livelihoods. The protected areas system was expanded, excluding local populations. Yet by 1992, more than 200,000 households resided "illegally" in the forests.

With the rapid linking of agriculture and forestry industries to world markets, land reform has again moved toward privatization. With the passing of the 1992 Law for the Modernization and Development of the Agricultural Sector (Decree 31-92), ownership of the forest was returned to private land owners (the state included) and municipal governments, saving some social forestry arrangements and recognizing some indigenous forest lands (Larson 2006 6). A new forest law was promulgated to address mafia-scale illegal logging, regularize settlements, acknowledge ancestral domains of indigenous communities, and improve the supply of wood to industry while increasing community participation in State managed forest land. By 2008, 54% of forest lands in Honduras were administered by government, 38% privately and 7.6% community owned or administered. The passage of the 2007 Forestry Law, and finalization of its implementing regulations in early 2009, has improved recognition of community rights to forests. Overlapping rights issues persist, particularly in municipal forests, which local officials often choose to manage industrially for revenue maximization (Larson 2006 13). Since the law passed, five new titles of 40,000 ha have been granted to five communities, and four consultative councils have been established, increasing community participation in the process of drafting regulations (Monterroso 2009).

Brockett, Charles D. (1998) *Land, power, and poverty: agrarian transformation and political conflict in Central America.* Edition 2. Boulder: Westview Press.

de Janvry, Alain, Elisabeth Sadoulet, and Wendy Wolford. (1998) *From State-led to Grassroots-led Land Reform in Latin America.* University of California at Berkeley. http://www.unc.edu/depts/geog/people/faculty/wolford/UNWIDERlandreform.pdf

Larson, Anne. (2006) *Honduras Country Case Study.* LLSL Series. RRI. http://www.rightsandresources.org/documents/files/doc_941.pdf

Larson, Anne M. and Jesse C. Ribot. (2007) "The poverty of forestry policy: double standards on an uneven playing field." *Sustainability Science.* 2(2): 189-204. http://pdf.wri.org/sustainability_science_poverty_of_forestry_policy.pdf

Monterroso, Iliana. (2009) Pers. comm. with RRI Regional Facilitator for Latin America. 7 May '09.

Utting, Peter 1003. Trees, People and Power: Social Dimensions of Deforestation and Forest Protection in Central America, London: Earthscan.

unworkable for local people because the regulatory obstacles are too great. The arrangements may require villagers to file applications, formulate and present management plans, conduct monitoring, and perform other tasks at a level of cost or sophistication that is beyond their reach. Contributing factors to these outcomes are: lack of understanding of local capabilities; administrative fiat by levels of government that are far away; insufficient appreciation for customary management systems.

Slow progress and many barriers to overcome

Clarifying and improving forest tenure rights is a tall challenge. In countries where people are fortunate enough to have formal forest tenure rights, some beneficiaries are unable to exclude powerful outside claimants and are unable to realize the full potential of forest lands and resources to secure or improve their livelihoods. External threats to local ownership of and access to forests are likely to increase in the near term because of the increasing scarcity of fossil fuel supplies (i.e. the biofuel boom and the search for fossil fuels and minerals underlying forests), the increasing demand for various kinds of agro-industrial and silvicultural production and mining, and the legacy of an outmoded model of protecting forest biodiversity and ecosystem services. Governments are an important dimension of the challenge because they are susceptible to being swayed by the rich and powerful, because some aspects of forest decentralization and devolution have not ended up favoring the interests of forest peoples, and because the administrative capabilities of government may be limited.

There is a fundamental problem that perpetuates this state of affairs. Forest peoples tend to lack the political power necessary to counteract the forcible appropriation of their lands and resources and to promote policies that would protect and enhance their rights. As various observers have rightly pointed out, rights lack meaning and utility unless they are accompanied by the power to enforce them.[186]

In sum, there is slow progress and many constraints in tropical forested countries. At the same time, there is in fact much progress in some places and some signs of the ways the situation can be improved.

Box 8. Lack of support for Cameroon's communal forests

Cameroon's Forest Law of 1994 foresees the possibility for a village represented by its mayor to request the creation of a communal forest (forêt communale). So far, the success of this initiative has been limited: not only is the law vague about the use and exploitation rights associated with the land titling, but the procedures are so complex and the costs so high that the advantages are not clear in comparison with the income assured to a local community through sharing the income taxes generated from a concession (40 percent to communes). As a result, even though communal forests have the advantage of being owned in perpetuity by the villages, this alternative tenure system has not yet received adequate support.

Source: in Romano and Reeb, 2008 : Bigombe Logo, P. 2007. Les régimes de la tenure forestière et leurs incidences. Sur la gestion des forets et la lutte contre la pauvreté au Cameroun. Rome, FAO.

IV. Positive Developments for Forest Community Tenure Rights

Law and policy developments that clarify and strengthen tenure

Global trends in law and policy development show increased concern paid to the rights of communities and indigenous peoples' rights to land and forests. Shifts at the international level have been translated into national policies over the past five years in several countries. However, these policies and laws must not be interpreted as complete responses to deep-rooted historic inequities.

For many years, international indigenous peoples' movements have pressured global and regional organizations to acknowledge their historic resource rights, including their rights to forestlands. In September 2007, the United Nations General Assembly nearly unanimously adopted the United Nations Declaration on the Rights of Indigenous Peoples.[187] The Declaration stated, among other things, that indigenous peoples "have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired."[188] Meanwhile, other international institutions have increased their promotion and recognition of community rights, not just indigenous peoples' rights, in national policy and legislation.

Since 2002, many tropical forest countries have passed legislation to give indigenous peoples and communities stronger rights to forests (summarized in Table 4).[189] In a show of commitment to its indigenous peoples, Bolivia adopted the UN Declaration as national law in December 2007.[190] Bolivia is also implementing a policy to clarify land and forest rights in a process known as *saneamiento*, which has already provided titles to many indigenous communities (Table 1).[191]

Brazil's 2007 Law on Public Forest Management[192] permits the allocation of forest concessions to communities and gives special attention to the recognition of and respect for local communities' rights to forests.[193] Communities in the Democratic Republic of Congo have also obtained the right to receive forest concessions, but to date there is no evidence that concessions have been allocated to communities.[194] Similarly, in Indonesia, the creation of the People's Plantations Policy with long-term leaseholds of 100 years is seen as a positive step towards greater community control over timber resources.[195] In Angola, the government passed the 2004 Land Law (*Lei. 09/04*)[196] which "recognizes and protects the land rights of communities" based on customary use and occupation, including that of forestlands.

The cases of Indonesia, Angola, and the DRC bring the implementation issue to the forefront. While legislation in many countries recognizes and states an intention to protect community rights, there is often little implementation at the local level for a variety of reasons. For example, in Mozambique, the 1997 Land Law[197] acknowledges the community tenure rights of historic occupants, but surveys have shown that government officials responsible for implementing the law and supporting communities asserting their rights have little awareness about the rights and procedures to secure them.[198]

In other countries, deforestation mobilizes support for protecting indigenous peoples and other communities. This is the case in Argentina, where laws have been passed to stop logging on indigenous peoples' lands. In Argentina, the 2007 Forest Law[199] declared a moratorium on logging following widespread protests.[200] The new law requires public hearings before any logging activities can take place, and it prioritizes the rights of many local communities and indigenous peoples over logging interests.

India's Forest Rights Act of 2006[201] provides for vastly improved rights to forest lands compared to the Joint Forest Management (JFM) regime in place today. The legislation secures the rights of tribal communities to benefit from their forests, although the process to determine how much forest land will be transferred to communities is still underway. In Viet Nam, the government has implemented forest tenure reform over the past several years, transferring 3.5 Mha to local communities. Research shows, however, that the most productive forests often remain in the hands of the government, and local communities do not understand their new rights.[202]

Table 4. Recent policy and law developments that strengthen indigenous, community and household rights in 22 tropical forest countries

Country	New Policy or Law	Effect
Angola	The 2004 Land Law recognizes the rights of communities to land acquired according to customary law.[203]	Community titling underway. Several thousand hectares have been titled to San communities.[204]
Argentina	The 2007 Forest Law suspended forest clearing and orders that public hearings be held before clearing can take place. It also mandates that forests used by peasant and indigenous communities be protected.[205]	Each province manages its forests and the effect of the moratorium is not clear.
Bolivia	National Law 3760 of 2007 adopts the UN Declaration on the Rights of Indigenous Peoples as national law.[206]	
Brazil	The 2006 Forests Management law aims to combat deforestation in the Amazon and provides for the demarcation of public forests including indigenous areas. The law also provides for concessions to local communities.[207]	The Brazilian Forest Service published data on the area of public forest under indigenous and community ownership in 2007 and 2009.[208]
Cambodia[209]	The implementing regulations of the 2002 Forestry Law, which permitted community forestry for the first time, were passed in 2007.	With the passage of these regulations, the process of creating the community sites could begin. Since 2007, almost 300,000 ha of community forest concessions have been established.
Cameroon	The 2001 order 0518/MINEF/CAB specifies additional community rights to acquire community forests.[210] The order establishes a new regulatory framework and intends to demonstrate government commitment to the community forest program.	
China	The New Countryside Development Initiative of 2005 allows for increased local decision-making power over forest management and tenure arrangements in collective forest areas.[211] The Property Law of 2007 defines collective ownership as joint ownership by all members of the community.[212]	Research shows a very limited shift towards individual ownership from 2000 to 2006 in most provinces surveyed.[213]
DRC	The 2002 Forest Code allows community concessions and transfers management responsibilities to local communities.[214]	Draft regulations to establish community forestry have been submitted to the Ministry of Environment, but there is no evidence of community concessions.
Gambia	The 2002 Local Government Act gives decentralized area councils the responsibility to protect, control and manage the forest resources located in their jurisdiction.[215]	
Guyana[216]	The 2006 Amerindian Act strengthened Amerindian communities' control over the forests titled to them. The previous Amerindian Act of 1966 permitted titling of state forests to these indigenous communities, granting them a degree of legal ownership. A process of updating the law began in 2004, following complaints of mining concessions and protected areas overlapping with Amerindian lands.	The amended act provides for improved rights of exclusion, granting communities veto rights over protected areas and small- and medium-scale mining in their territories. The National Toshao Council was established in 2007 to facilitate representation of Indians at the national level and provide input on the implementation of the Act.

Country	New Policy or Law	Effect
Honduras[217]	The 2007 Forestry Law provides for the participation of communities in forestry consultative councils, the regularization of forested lands with demarcation of areas of protection, conservation, and community management.	The law's implementing regulations were finalized in early 2009. Since the law passed, five new titles of 40,000 ha have been granted to five communities, and four consultative councils have been established, increasing community participation in the process of drafting regulations.[218]
India	The 2006 Forest Rights Act provides for a series of rights to scheduled tribes and other traditional forest-dwelling communities to forestland including more decision-making power over natural resource management.[219]	The area to be transferred to communities and households is still to be determined. Estimates range up to 10 Mha.
Indonesia	In 2007 three categories community based forest management created and now amended: 1) long-term leaseholds over state forest area for protected and production (under Law 41/1999) and conseration (Law 51/1990).[220] Production forest leases include Hutan Tanaman Rakyat (HTR-People's plantation), Hutan Kemasyarakatan (HKM—Community forest), and Hutan Desa (HD-Village forest). Government hoped that 30-40% of plantation timber supply to industry would come from these forests by 2016. HKM leases are up to 35 years, and HTR up to 60 years. HD designations are coordinated with Ministry of Home Affairs. Communities can establish conservation forests as Desa Konservasi (Conservation Villages) instead, or collaboration in National Parks under Decree 19/2004. Regulations for the latter are still in process.[221]	Guidelines on how to implement requirements of CBFM schemes are clear in the regulations themselves. For Conservation Forests, a prior regulation is in temporary use, Government regulation 68/1998. As of August 2009, 350,000 has. of HTR had been granted, versus a target of 1.2 million has. For HKM, 31,400 had been granted and for HD, 2,360. There is therefore a big challenge ahead for how to move towards 2015 targets. which are officially 5,8 million has. of HTR, 4,4 million for HKM and 1.1 million for HD.[222]
Mali	Under the 2002 Tenure Law decentralized communities and private individuals are granted the right to possess forests and customary use rights and institutions were recognized.[223] The 2007 Forest Policy reaffirms the government's commitment to promoting community forest management.[224]	
Malaysia[225]	In May 2009, the Federal court upheld the legitimacy of indigenous customary claims to land, including communal forests and state territory. With sufficient evidence to support their customary rights, the claimant gained control of land previously leased to an international oil and gas company. The court decision may apply to some 200 legal cases filed by activists over the past few years against the Sarawak state government for providing plantation and logging concessions on land under customary claim.	
Niger	The Forest Code of 2004 promotes the transfer of forest management responsibilities to the regions, departments and communities.[226]	
Sudan	The Forestry Law of 2002 (Article 33/E/2) states that Popular Forests or community forests shall be administered by the committees selected by the citizens of the area.[227]	

Country	New Policy or Law	Effect
Tanzania	The 2002 Forest Act introduced Participatory Forest Management, which provides a clear legal basis for communities, groups or individuals across mainland Tanzania to own, manage, or co-manage forests under a wide range of conditions. . There are two regimes in place: Community Based Forest Management (CBFM) with stronger rights than the Joint Forest Management (JFM).[228]	Increasing number of CBFM and JFM areas. See Table 1.
Thailand	The 2007 Forestry Law provides for the participation of communities in forestry consultative councils, the regularization of forested lands with demarcation of areas of protection, conservation, and community management. The long-debated Community Forest Bill was also passed in 2007.[229]	While these laws establish the legal basis for local communities' rights to manage their forests, critics view sections of the Community Forestry Act as counterproductive, with one article creating onerous eligibility requirements for the establishment of a community forest, and another prohibiting logging by communities in their forests.[230]
Venezuela	In 2005, Venezuela's legislature passed a new law on indigenous peoples and communities, which includes a provision ensuring the land and property rights of indigenous peoples and communities. The law also specifies the process for demarcating and titling indigenous lands, recognizing ancestral rights to forestlands and specifying the process for demarcating and titling indigenous lands.[231]	Approximately 0.7 Mha have been titled to indigenous peoples' communities in agricultural areas.

The impacts of forest tenure reform

There are many motivations for strengthening forest tenure, including recognition of human rights, upholding dignity, defending cultural survival, and helping assure forest peoples' place in the world. In addition to these, there are more utilitarian goals advanced by governments and development organizations. These include the ability to reduce poverty, diminish conflict, and improve forest management and conservation. As progress on statutory reform is limited, so is the progress of science in assessing the impact of tenure reform outcomes. Nevertheless, there is general agreement in the development community that secure property rights are central to achieving social, economic, and environmental goals.

Although it is not yet conclusive, there is emerging evidence of the impact of forest tenure reforms on income, the ability to exclude claimants, and forest conservation and management. Rather than compile an exhaustive summary of the research literature, we here provide some illustrative findings.

Recent studies in various countries show that strong formal forest tenure rights can improve the income of beneficiaries. Research on 200 households in Mexico shows that community forest enterprises can help reduce poverty.[232] Cost-benefit analysis in Bolivia shows that, all other factors being equal, the income from timber exploitation is higher if the forest users have de jure alienation rights for forest products.[233] Research in China concludes that forest tenure change led to increased farmer revenue from forests, including timber harvests.[234]

In Nicaragua, recognition of the rights of indigenous communities to their historic territories led to the suspension of logging concessions in indigenous territories and no new concessions were granted.[235] In Eastern and Southern Africa, some communities have gained security over the local forest commons through changes that have allowed people to own land in common; as a consequence, these landholdings were less vulnerable to appropriation by others.[236] A 1998 decree by the Indonesian government enables farmers in Krui, Sumatra to register their rights to lands farmed on state forest land. As of 2005, none of the communities had applied to register their rights, but nevertheless, the decree was instrumental in stopping outsiders' attempts to appropriate these forests.[237]

Many studies have found that strengthening forest tenure security can result in improved management and conservation of forests, and conversely, that weak tenure can result in poor management and

conservation outcomes. In the Brazilian Amazon, inhabited reserves tend to inhibit deforestation and forest fires when compared to uninhabited parks,[238] and insecure property rights are one of the main causes of deforestation.[239] In Uganda, well-known and enforced forest property rights are associated with improved forest condition.[240]

The opportunity of climate change, bargaining power, and the rights of forest peoples

Slowing deforestation and promoting afforestation and reforestation have suddenly become a policy priority not just to slow greenhouse gas emissions from forest conversion, but also to safeguard and increase the role of forests in maintaining the global carbon balance and absorbing surplus carbon from other sectors.

In this context, forest communities and individuals with forest ownership rights have more bargaining power than those who remain tenants of the state. These owners can participate in and potentially be compensated by climate mitigation programs. So these owners have leverage in determining whether these schemes succeed or fail, and as such, the terms of their compensation for their contribution to the public good. Forest land managers are a heterogeneous group that includes everyone from indigenous peoples to the leaders of corporations conducting business in the forest landscape.

The extent to which local people can effectively participate in and benefit from climate regimes depends on many questions regarding rights. To begin, who owns the carbon? More specifically, who owns the carbon sequestered in trees and forest soils, and who owns the rights to the avoided carbon emissions? Who should be compensated for protecting the world's forests, thereby helping assure climate stability? Will they be only those who have formal and secure tenure? If so, the arrangements run the risk of excluding the poor, because it is disproportionately they who lack formal and secure tenure. Will they be those who not only have formal tenure security, but also those with the largest landholdings? There will be strong appeal to take this approach in order to minimize transaction costs, but this approach will also exclude the poor. Will the system favor those who threaten the most damage to forests? If so, then once again, the bigger players will be favored as participants in such schemes.

There is a moral imperative to include the poor and those without secure tenure in forest-based carbon sequestration schemes. But there are also practical incentives to include the poor and tenure-insecure in carbon sequestration schemes: vast areas of the forest landscape are inhabited by the poor; there are risks of moral hazard in rewarding land owners who do the most damage; and there is a risk that forest peoples can find ways to thwart the success of carbon sequestration schemes if they are excluded from the stream of benefits.

The leading approach for involving forest land managers in carbon sequestration, called REDD (Reducing Emissions from Deforestation and Degradation), involves establishing a system of compensation that is financed either through carbon trading or through international conservation funds.[241] Many analysts writing about REDD options have called for strengthening tenure and local involvement to ensure that forest peoples benefit. Additional provisions are advocated to ensure the best possible outcome for indigenous and other forest-dependent peoples: they must be involved in debates about the pros and cons of REDD arrangements;[242] their human and customary rights must be respected;[243] there must be clarification of the legal and ownership status of carbon, provision of accessible market information, and an oversight mechanisms in the carbon value chain;[234] and institutions must be established to ensure poor people do not lose out in the arrangement.[245]

The growth of organizations and networks in support of forest tenure reform

Collective action and empowerment are necessary to strengthen forest tenure rights and to enforce them once they are obtained. It is therefore encouraging that there is increasing level of organization and institution-building in support of forest tenure reform. Collective action to advance rights over land and resources is not new, at least at the local level. It has existed for as long as forest peoples have felt their livelihoods at risk and their rights violated.

What is new in recent years is the growth of organizations and networks supporting forest peoples, and an increasing level of integration, inter-communication, and visibility that reflects the

scale of both the threats experienced by forest people and the opportunities.

The growth of these movements and their effects are documented and evaluated. A report analyzing four cases in Central America and Brazil found that "[a] combination of indigenous capacity for collective organization and significant external assistance helped produce grassroots forest movements capable of becoming proactive partners in the management and defense of protected areas."[246] A study on forest tenure and poverty in Latin America observes that "…the demand of indigenous peoples for recognition of historic territories is probably the most important factor behind increasing community control of forests."[247]

A report on land rights and reform of governance in Africa remarks that "a more action-based and community driven evolutionary process is needed" because it will be important to "drive and sustain political will towards real removal of the chronic tenure insecurity of the poor."[248] A paper on forest tenure in Asia says that in Nepal there is "a strong, organised social movement of community foresters who have been able to resist pressure from the

Box 9. The Case of Raposa Serra do Sol Indigenous Teritory, Brazil

In 1993 the demarcation of the Raposa Serra do Sol Indigenous Reserve was first proposed. After being identified as an Indian homeland by the National Indian Foundation (FUNAI) in 2004, the lands (totaling 1.8m ha) were mapped during the term of then president, Fernando Henrique Cardoso, and were recognized formally in 2005 by president Luiz Inácio Lula da Silva as the Raposa Serra do Sol Indigenous Reserve. On 19 March 2009, the Brazilian Supreme Court upheld an earlier presidential decree to maintain the Raposa Serra do Sol Indigenous Reserve as a continuous territory for the perpetuation of indigenous livelihoods. In the landmark 10-1 decision, 1.7m ha of lands were asserted as belonging to the reserve's 18,000 indigenous inhabitants. Gilmer Mendes, Supreme Court Chief Justice was quoted, "The basis we established in this case, the conditions and procedures, will serve as a guide for other disputes. We are putting an end to the issues surrounding similar cases."

Article 231 of the Brazilian Constitution of 1988, declares:
"Indians shall have their social organization, customs, languages, creeds and traditions recognized, as well as their original rights to the lands they traditionally occupy, it being incumbent upon the Union to demarcate them, protect and ensure respect for all of their property."

Furthermore, "Lands traditionally occupied by Indians are those on which they live on a permanent basis, those used for their productive activities, those indispensable to the preservation of the environmental resources necessary for their well-being and for their physical and cultural reproduction, according to their uses, customs and traditions."

Though a wider victory for Raposa Serra do Sol, in their decision the justices also defined several conditions that could limit indigenous peoples' rights and the future demarcation of indigenous lands in Brazil. One condition would allow for infrastructure projects on indigenous lands found to be in the national interest without the prior and informed consent of indigenous communities. Another potentially restrictive condition could prevent indigenous communities from reclaiming lands they occupied prior to 1988, the year the Brazilian Constitution was ratified. The decision, however, did not find any reason for indigenous lands along national borders as constituting a threat to national security.

As Raposa Serra do Sol is protected, a firm precedent for future indigenous land rights claims has been created.

Sources:
Survival International. (2009) http://www.survival-international.org/news/4354
Virtural Brazil.com (2004-2009) http://www.v-brazil.com/government/laws/titleVIII.html
Rainforest Foundation UK. (2009) http://www.rainforestfoundation.org/?q=en/node/242

Forestry Department to reassert control over forests where timber values have been restored. This social movement has even played a wider role in maintaining a democratic, national political process but still faces challenges in extending the community forestry model to the lowland forests (*terai*) and to allow community foresters to sell timbers outside their areas."[249]

The growth of the forest rights movement is also evident in various other ways. International forestry organizations, including those involved in research, have developed a rights-based approach in their work in recent years. International donor organizations are beginning to place forest rights high on their agendas. National and regional networks have emerged or strengthened.

Finally, community organizations across the world are increasingly partnering with national and international NGOs and advocacy groups and applying new technology in their quests for tenure recognition. Community mapping initiatives using global positioning systems (GPSs) and related technologies to overlay geospatial data with information on historical and current ownership and land uses provide a basis for negotiating tenure and land use with governments and other stakeholders. Communities are also reaching out nationally and globally to one another, sharing experiences and bringing common concerns to dialogues on forests and the environment.

At the international level, the forest tenure movement is experiencing challenges, among them: diverse views and interests among participants, sometimes making communication, agreement, and decision-making difficult; and pressure to learn quickly and multitask because of the importance of forest tenure in connection with emerging global issues (e.g. food shortages, biofuels, and climate change). Along with the challenges, there are golden opportunities created by two factors. First, technology has improved communication among people and institutions in the movement, enabling rapid dissemination of information and decision making. Second, the forest rights agenda is growing quickly in part because of a fundamental change in its composition. Forest rights are no longer just a moral issue, but a much wider one propelled by an emerging understanding that clarification and strengthening of forest tenure is at the core of many global issues such as human rights, violence and conflict, economic growth, and climate change.[250]

V. Opportunities for Making Better Progress

National governments still claim ownership of most of the tropical forest area in the world. There has been change toward less government control, but progress has been slow and largely concentrated in a small number of countries.

The need for change in tropical forest countries is urgent. The process of statutory forest tenure reform should begin where it has not yet started and then progress rapidly. Reforms should: prioritize ownership rights over mere access; ensure that both ownership and access rights, where already conferred, provide the protections and benefits that are offered in the letter of the law; and improve upon the tenure rights already conferred where they are deficient.

Clarifying and strengthening forest tenure, including the recognition of customary claims, is an urgent ethical priority. Most forest peoples still experience the exclusion imposed centuries ago. It is time for this era of injustice to end. The forest tenure transition should signify not just a change from government to non-government administration of forests, but also a shift from exclusion to ownership by forest people.

Forest tenure reform is also a practical priority. Addressing land and resource disputes and creating tenure security for all stakeholders can resolve violent conflicts, create incentives for household investment, lay the foundation for stable and predictable investment by the government and the private sector, and contribute to national and regional economic growth. Resolving ambiguity in forest property rights is a key first step towards protecting and increasing the capacity of the global forest estate to sequester carbon, and thereby address one of the key causes of climate change. Clear and secure tenure, that is supported by local people, is also a necessary condition for effective investments and payment schemes associated with REDD. At this moment in history, forest tenure reform can benefit *all* of society, not just forest peoples.

The 2002 report Who Owns the World's Forests? set forth key areas of opportunity for advancing forest tenure reform. In many ways, not much has changed—their recommendations are as relevant now as they were then. Here we build upon those recommendations and propose specific roles that groups of stakeholders might play in advancing reforms.

Create a vision, share knowledge and improve understanding

If countries do not yet have a vision and plans to undertake forest tenure reform, it is a priority for them to do so. In cases where forest tenure reform has been undertaken, forest people must be well informed of tenure policies and legislation, and of their own rights and responsibilities within this framework. To achieve this end, governments can create and publicly disseminate strategies for implementing tenure reforms. Governments can consider strategies which aim to improve tenure reform performance on the basis of lessons learned and best practices. Full realization of effective reforms must also include capacity building within communities to ensure they understand new legislation and have the confidence and ability to assert their right to full participation in the control of land and resources in their communities.

Create an enabling policy environment

An enabling policy environment for accelerating and improving the implementation of forest tenure reforms is an essential pre-condition for improving tenure security. First, an enabling environment must strive for equity and encourage full civic participation. To achieve this, governments and advocates should:

- Establish and support full citizenship rights for all, and the space and political freedom for participation a political constituency
- Ensure the active participation of forest people in tenure policy and law development processes
- Disseminate information and conduct public debate on the positive and negative consequences of industrial concession policy
- Institutionalize and enforce application of free, prior, and informed consent in forest land allocation processes
- Consider social equity in the formulation and implementation of forest tenure reforms, particularly the rights of women and minorities

Second and equally important, an enabling policy environment must have efficient and effective systems of governance. To achieve this, policy makers and advocates should:

- Establish, strengthen, and support effective mechanisms and institutions of regulation over land and resource use
- Establish, strengthen, and support independent judicial arbitration systems
- Diagnose and resolve administrative gridlock and overlapping inter-departmental authority in the forest sector
- Strengthen capacity building for government staff involved in management of forest areas and tenure reform processes
- Strengthen community capacity to govern their forest lands, particularly where forest reforms have been recently initiated

Invest to accelerate reforms

The recognition of property rights and statements of vision and policy are not expensive undertakings—especially relative to the benefits and revenues of the forest estate. In some cases funds for tenure demarcation and delimitation may be beyond the reach of developing countries' governments. Multilateral agencies and other donors with an interest in supporting effective forest reform may partner with governments to support and finance forest reforms. Climate change is adding to the urgency of forest tenure reform and is creating opportunities for some forest peoples and countries; multilateral agencies and private sector entities investing in REDD strategies and carbon markets may become sources for complementary funding. Each of these investors may partner with governments to support:

- Improved data collection, documentation, and clarification of existing forest tenure systems
- Creation of opportunities for dialogue within communities, and for forest peoples' representatives at the policy level
- Design, public dissemination, and implementation of tenure reforms
- Steps to strengthen full civic participation among formerly marginalized groups
- Steps to strengthen effective systems of governance in forest areas

Define, clarify and strengthen property rights to ecosystem services

It is important to clarify not only property rights to land and resources, but also the rights to ecosystem services provided by forest lands. These services include watersheds, biodiversity, ecotourism, and carbon sequestration. The emergence of climate change as a major global issue underscores the importance of clarifying property rights to carbon not just locally, but also on a national scale. These systems must be defined in a participatory process that recognizes customary systems of ownership and management rights to ecosystem services.

Strengthen knowledge and information about forest tenure

There continues to be a lack of adequate information on tenure claims, conflict, and ownership in the forest areas of most countries. First, the provisions of statutory tenure laws themselves should be clarified. A clear legal framework for forest tenure rights is essential for resolving uncertainties and disputes around access to forest resources, and for laying the foundation for new and improved tenure regimes. Second, there should be accurate, detailed, and publicly available information on ownership and control of forest resources. Since 2002, there has been noticeable improvement in tenure data collection for some countries, but in most the inadequacies remain. In many countries, even basic census data of numbers of forest residents is absent or unreliable; for some there are no public data at all. We note in this report that forest land-use change is far outpacing tenure reform. This underscores the urgency of developing accurate and reliable knowledge on both statutory and de facto forest tenure.

Potential roles of stakeholders

Here we identify some roles that should be played by key stakeholders to ensure that forest tenure reforms serve forest peoples and society as a whole.

Governments should take steps to improve, launch, or accelerate the forest tenure transition. Among the most important steps are to: address corruption and collusion between industry and individuals in government; address problems in the judiciary system so that it can function properly for land and resource dispute resolution; engage with forest

people and ensure that they are included in national policy and law development processes; document customary claims to forest lands and their associated tenure systems; conduct land and resource tenure training to overcome capacity deficits; resolve the issue of overlapping responsibility among government departments and ministries for the same forest lands; reduce the logistical and financial hurdles sometimes faced by people who obtain statutory rights (e.g. the preparation of complex management plans); and help create equal opportunities for small and medium forest enterprises to compete with larger ones.

Forest-dependent peoples can engage in collective action, lobbying, and advocacy to promote tenure reform legislation and to compel enforcement of existing legislation. Forest peoples can benefit from REDD provisions under discussion. However, these benefits will likely accrue only if forest people exercise their leverage, and they will only have bargaining power if they are well organized. Forest peoples must be involved in debating the pros and cons of REDD arrangements.

Multilateral development banks and other donor agencies can follow through on the emerging understanding that forest tenure has implications beyond the forest sector. Consistent with this they can elevate the profile of forest tenure in their programs and financing. If multilateral banks have a role in the implementation of REDD, their actions will benefit from approaches that accelerate clarification of tenure and recognize the role of otherwise marginalized people. Multilateral banks should also create and support a mechanism to oversee investment in carbon finance and climate change mitigation mechanisms, enforcing respect for forest peoples and for their rights to forest lands and resources.

Responsible industries making investments on forest lands should take advantage of the opportunity to demonstrate support for and compliance with free, prior, and informed consent provisions.

Forest management certifying bodies can take on board tenure and rights in their standards. Moreover, they can consider certifying small and medium forest enterprises that are alternatives to the industrial model.

Environmental NGOs can carry forward the paradigm shift in the direction of community conservation, can become advocates of tenure reform, and can participate in the creation of pro-poor systems of payments for ecosystem services.

ANNEX 1. METHODS AND GUIDELINES USED FOR COMPILING DATA ON STATUTORY FOREST TENURE CHANGE

Six countries included in Sunderlin et al. 2008 have been removed from this report because they are not tropical forest countries (Canada, Finland, Japan, Russia, Sweden, and United States). Eleven tropical forest countries not included in Sunderlin et al. 2008 because they were not in the set of the top 30 most-forested countries are included in this report (Cambodia, Chad, Cote d'Ivoire, Ecuador, Guyana, Honduras, Niger, Nigeria, Suriname, Thailand, and Togo). The countries added were selected on the basis of data availability, ITTO Producer Country status, and geographic distribution.

Table 1 presents the most reliable and up-to-date government data on statutory forest tenure available for the period 2002–2008. Since definitions of tenure categories vary among countries, and because governments often do not collect forest tenure data in a systematic way, the following guidelines were developed to select the most accurate data possible in compiling the data for Table 1. These guidelines will serve as a standard for future data collection on statutory forest tenure distribution.

1. Priority will be as follows: (1) government information sources; (2) government figures cited by other organizations (e.g. FAO); and (3) trusted independent sources.
2. Only absolute numbers will be presented. Averages based on different sources will be avoided.
3. The most current and reliable data will be presented. Data points in original sources must refer to years ranging 2002–2008 to be included in the 2008 column. If no data are available for years after 2001, the data may be repeated if in-country sources confirm their current validity.
4. In cases where it is impossible to find accurate absolute numbers, percentages from reliable sources may be applied to the total forest area presented in the same source or to the area of the legal forest estate.
5. One of the following three conditions must be met in order to make retrospective changes to the 2002 table data: (1) 2002 data become available that were not available in 2002; (2) miscalculations were made in the 2002 data; and (3) changes made in the definition of "forest area" require adaptation of the 2002 data to maintain time-series consistency.
6. In some cases where the 2002 tenure data included "Other Wooded Lands" (OWL, lands with 5–10% forest cover as defined in FAO 2006a), the 2008 tenure data includes OWL.
7. Where possible, data points will be verified by in-country forest tenure specialists.

ENDNOTES

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2 See the statements by governments, civil society and the private sector in Hatcher, J. 2008. Securing tenure rights as a forestbased climate change mitigation measure:Some costs and lessons to inform policy decisions and priorities. World Bank. Washington DC.

3 Sunderlin, W., Hatcher, J. and M. Liddle. 2008. From Exclusion to Ownership? Challenges and Opportunities in Advancing Forest Tenure Reforms. Rights and Resources Initiative. Washington, DC.

4 These 39 country cases account for 1,989 Mha out of the total 2,059Mha forest area of tropical forest counties (FAO 2006a). The global forest cover totals 3,952 Mha and the forest area for the countries in Table 1 total 1,989 Mha, based on FAO 2006a.

5 Adapted from: Food and Agriculture Organization of the United Nations (FAO). 2002. Land Tenure and Rural Development. FAO Land Tenure Studies 3. Rome: FAO. p7.

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Molnar, A., et al. (2004). Who conserves the world's forests? A new assessment of conservation and investment trends. Washington, DC, Forest Trends.
Monterosso, I. and D. Barry. 2008. Sistema de concesiones forestales comunitarias: tenencia de la tierra, bosques y medios de vida en la reserva de la biosfera maya en Guatemala. CIFOR and FLASCO. Bogor.
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9 Sunderlin, William, et al. 2008.

10 The global forest cover totals 3,952 Mha and the forest area for the countries in Table 1 total 1,989 Mha, based on FAO 2006a.

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12 IUCN protected area management categories 1-4.
IUCN. 2002. The IUCN Protected Area Management Categories. Information Sheet 3.
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13 White and Martin 2002:4.

14 White and Martin 2002:6.

15 White and Martin 2002:6.

16 These types include: Public ownership, Private ownership: Individuals, Private business entities and institutions, Local communities, Indigenous / tribal communities, and Other types of ownership. Taken from FAO. 2009. Pre-filled country reports. http://www.fao.org/forestry/45740/en/

17 These 39 country cases account for 1,989 Mha out of the total 2,059Mha forest area of tropical forest counties (FAO 2006a).

18 The results are calculated using the 30 complete country cases from Table 1. They exclude the cases of Argentina, Burkina Faso, Gambia, Malaysia, Mali, Mexico, Mozambique, Peru and Senegal because they are not complete for 2002 and 2008 in all tenure categories.

19 White and Martin 2002:25-26.

20 Countries are presented in descending area of forest cover as determined in FAO 2006a.

21 The total area of forests administered by government is an estimation and is calculated as follows: The sum of *Areas Protegidas* and *Terras Devolutas* was reduced by the area of owned by communities and indigenous groups and the area designated for use by communities and indigenous groups. Data for *Areas Protegidas* and *Terras Devolutas* are drawn from:
Lentini, Marco, Adalberto Verissimo, and Leonardo Sobral. 2003. Fatos Florestais da Amazonia 2003. Belém: Imazon. p21. http://www.imazon.org.br/upload/im_livros_002.pdf.
Terras devolutas are defined as belonging to the State (*Bens da União*).
Government of Brazil. 1988. Constituição da República Federativa do Brasil De 1988. Artigo 20.
http://www.planalto.gov.br/ccivil_03/Constituicao/Constitui%C3%A7ao.htm

22 Government-administered areas include the following national classifications: in Federal forests: *Estação Ecológica, Parque Nacional, Reserva Biológica, Reserva Ecológica, Área de Relevante Interesse Ecológico, Terra arrecadada* and *Floresta Nacional;* and in State forests: *Estação Ecológica, Monumento Natural, Parque Estadual, Reserva Biológica, Reserva Ecológica, Refúgio de Vida Silvestre* and *Floresta Estadual.* Data are drawn from the July 2007 Cadastre of Federal Forests, which is incomplete but the most updated and reliable source.
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Serviço Florestal Brasileiro (SFB). 2007. Distribuição das Florestas Públicas por Destinação. Accessed 25 February 2008. http://www.mma.gov.br/estruturas/sfb/_arquivos/imagem_florestas_publicas_destinacao.jpg
Instituto Socioambiental (ISA). 2007. Unidades de Conservação na Amazônia Legal. Accessed 5 May 2008. http://www.socioambiental.org/uc/quadro_geral

23 Designated for use by communities and indigenous groups includes the following national classifications and refers to the legal Amazon only:
In Federal forests: *Reserva de Desenvolvimento Sustentável*, and *Reserva Extrativista;* and
In State forests: *Floresta Extrativista, Floresta de Rendimento Sustentado, Reserva de Desenvolvimento Sustentável, Reserva Extrativista*, and *Projeto de Desenvolvimento Sustentavel.*
Data drawn from ISA DATA and provided by Ehringhaus, Christiane. 2008. Personal communication. 13 May 2008.

24 Designated for use by communities and indigenous groups includes the following national classifications and refers to the legal Amazon only:
In Federal forests: *Reserva de Desenvolvimento Sustentável, and Reserva Extrativista*; and
In State forests: *Floresta Extrativista, Floresta de Rendimento Sustentado, Reserva de Desenvolvimento Sustentável, Reserva Extrativista, Projeto de Desenvolvimento Sustentavel.*
Azevedo 2007.
SFB 2007.
ISA 2007.

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International Tropical Timber Organization (ITTO). 2005. Status of tropical forest management 2005. Yokohama: ITTO. p209. http://www.itto.or.jp/live/Live_Server/1222/SFMTropics2005.zip

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FAO. 2005c. Global Forest Resources Assessment 2005: China Country Report 051. Rome: FAO. p21. http://www.fao.org/forestry/webview/media?mediaId=8859&geoId=102

28 Refers to State-owned forests. Data are drawn from the Sixth National Forest Inventory of China as presented in:
USDA. 2005. China's Sixth Forest Resource Inventory Report

2005. GAIN Report Number CH5027. Beijing: USDA Foreign Agriculture Service. p3. Accessed 19 May 2008. http://www.fas.usda.gov/gainfiles/200503/146119239.pdf

29 Refers to collective forests and includes forests managed by households (34.5 Mha) (FAO 2005c:21).
Households enjoy tree ownership distinct from the collective, but the State or Collective retains ownership of the forest land.
Li, Ping and Keliang Zhu. 2007. A Legal Review and Analysis of China's Forest Tenure System with an Emphasis on Collective Forestland. Washington DC: RRI and RDI. Accessed 19 May 2008. http://www.rightsandresources.org/documents/index.php?pubID=321

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Montreal Process Implementation Group for Australia (MPIGA). 2008. Australia's State of the Forests Report 2008. Canberra: Department of Agriculture, Fisheries and Forestry (DAFF) Bureau of Rural Sciences. p155.
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41 *Refers to Áreas de Comunidades Nativa*s (FAO 2005d:29).

42 Refers to *Áreas de predios privados independientes*. These areas are titled to individuals, and they cannot be considered completely forested. (FAO 2005d:29).

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These figures do not reflect the changes envisaged in the 2006 Tribal Rights Bill.

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http://www.fao.org/forestry/webview/media?mediaId=8859&geoId=74

45 Refers mostly to gum arabic forests managed by communities. The data cover Northern Sudan and parts of Southern Sudan (Jonglei, Upper Nile and Unity states) (FAO 2005e:11).

46 Refers to community forests defined as "the forest owned by one individual" (FAO 2005e:11).

47 The distribution of forest tenure in Mexico is widely understood as 80% in *ejidos forestales*, 15% in individual or firm-owned forest, and the remaining 5% are state forests. Information from the Mexico Country Report to the FAO shows that the percentage of *ejidos forestales* is approximately 59% of the total, while "other property" makes up 41%. Other property is not disaggregated into State and Individual/Firm. FAO. 2005f. Global Forest Resources Assessment 2005: Mexico Country Report 189. Rome: FAO. p21.
http://www.fao.org/forestry/webview/media?mediaId=8859&geoId=176

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49 Calculated as the 2000 Total Forest Area of 60.63 Mha (based on FAO 2006a:201) reduced by the 24.5 Mha of areas owned by communities and indigenous groups.

50 Calculated as the Total Forest Area of 60.73 Mha (based on FAO 2006a:201) reduced by the 27.5 Mha of areas owned by communities and indigenous groups.

51 Refers to *Tierras Indigenas* and afro-descendants lands (ITTO 2005:218).

52 While Angolan legislation has begun recognizing community lands acquired through customary systems, there is no information yet available on the size and number of community titled areas.
Government of Angola. 2004. Lei n. 09/04. 9 November 2004.
http://faolex.fao.org/docs/pdf/ang49570.pdf

53 Refers to the 2000 total forest area (FAO 2006a:196). Assumes no areas designated for or owned by communities and indigenous groups prior to 2002.

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http://www.fao.org/forestry/webview/media?mediaId=8859&geoId=13

55 Bolivia is implementing a process known as saneamiento to clarify land rights. The figures presented here refer are subject to change as the process continues.
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56 Refers to *Tierras fiscales, areas protegidas and reservas y concessiones forestales* (FAO 2005h:12).

57 Refers to *Tierra Comunitaria de Orígen* lands claimed by communities and currently under saneamiento in lowland areas as of 2007. Instituto Nacional de Reforma Agraria data provided by Pacheco, Pablo. 2008. Personal communication, Scientist, Forests and Livelihoods Program and Forest Governance Program, CIFOR. 9 May 2008.

58 Refers to titled *Tierras Comunitarias de Origen* in lowland areas as of 2007.
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60 Refers to the 2000 total forest area (FAO 2006a:201). Assumes no areas designated for or owned by communities and indigenous groups prior to 2002.

61 FAO 2006a:201.

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http://www.minci.gov.ve/pagina/28/8492/comunidades_indigenas_reciben.html

63 Refers to the 2000 total forest area (FAO 2006a:201). No JFM areas existed prior to 2002.
Mutamba, Manyew. 2008. Personal communication. 22 April 2008.

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Chendauka, Bwalya. 2008. Personal Communication, Principal Forestry Officer, Zambia Forestry Department Eastern Province.

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FAO. 2005i. Global Forest Resources Assessment 2005: Zambia

Country Report 062. Rome: FAO. p15. http://www.fao.org/forestry/webview/media?mediaId=8859&geoId=20

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With the Land Act of 1999 and the Village Land Act of 1999, village land in Tanzania became the property of the communities including forested village lands. The figures in Table 1 reflect only the forested village lands legally reserved by the communities. The central government continues to exercise control over unreserved forest areas, and an accurate estimation of the forested village land is not available.
Government of Tanzania. 1999a. Village Land Act 1999. http://faolex.fao.org/docs/pdf/tan53306.pdf
Government of Tanzania. 1999b. Land Act 1999. http://faolex.fao.org/docs/pdf/tan23795.pdf

68 Refers to Joint Forest Management (FAO 2006e).

69 Refers to Community Based Forest Management (FAO 2006e).

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71 FAO 2005j:11.

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Pers. comm. with Fergus McKay, Coordinator, Legal and Human Rights Programme, Forest Peoples Programme. April 2, 2009.

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Report no. 25361. Washington D.C.: World Bank. P. 6.

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115 All 2002 figures citing FAO 2006a.

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135 These Asian tropical forest countries have a total forest area of 603.79Mha and the total forest area of all African tropical forest countries is 673.53Mha (FAO, 2006).

136 These Latin American tropical forest countries have a total forest area of 690.29Mha and the total forest area of all African tropical forest countries is 837.83Mha (FAO, 2006)

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