

Introduction

Forest Tenure Reform: New Resource Rights for Forest-based Communities?

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INTRODUCTION

In Asia, Africa and Latin America, an important shift in forest tenure has occurred since 1985, with at least 200 million ha of forest recognised or legally transferred to local communities and indigenous people (White and Martin 2002). Though the portion of the global forest estate either owned or administered by communities is still small at only 11.4 per cent as of 2008, the changes are significant, and recent data suggests that the community share is still growing. In a study of 25 of the 30 most-forested countries, Sunderlin et al. (2008) found that land designated for and/or owned by communities had increased in 15 countries just since 2002. In addition, the percentage of forests in the hands of communities in the developing world alone is much higher, at 22 per cent in 2002 and increasing to 27 per cent in 2008 (Hatcher pers. comm., based on data from Sunderlin et al. 2008).

These changes in community rights to forests, examined in the articles in this special issue, did not occur overnight. Research on devolution, community forestry, common property resources, conservation and development initiatives and, more recently, forestry decentralisation in the context of climate change, has explored different aspects of these reforms. What is new here is the recognition that a variety of policy shifts and changing conceptions have come together to constitute what we now understand as forest tenure reform (Taylor et al. 2007; Pacheco et al. 2009), comparable to the widespread agrarian reforms of the mid-twentieth century and with equally important implications.

Forest tenure reform differs from agrarian reform. Rather than redistributing land, it primarily involves the formal recognition of forest rights and benefits for people already living in and around forests; it is often driven by demands for ancestral or customary land rights. In addition to responding to livelihood interests, it also explicitly aims to conserve forests, in contrast to agrarian policies that often promoted forest clearing in the past (Larson et al. 2008). Reforms may originate as much 'from above' as 'from below', with forces driving and shaping reforms emerging from communities, indigenous people and social movements, international donors or the state (Barry et al. 2010). Forest tenure reforms have implications for both communities and forests. They are in part based, at least in theory, on the belief that communities can be good forest stewards; in practice, however, this position does not always appear to guide the decisions of those responsible for implementation.

Understanding this emerging dynamic as a forest tenure reform calls for the systematic and comparative analysis of the associated processes and outcomes of these changes, amidst other global transitions, and of the need to develop frameworks and approaches that can facilitate such comparisons. This special section represents the results of a preliminary inquiry. It explores the origin, nature, goals, and results of policies formally recognising or granting new community rights to forests, with particular emphasis on understanding the challenges they have faced in implementation and the extent to which they do, in fact, represent a livelihood improvement for the communities involved.

Most of the articles presented here are based on research undertaken from 2006 to 2008 by the Center for International Forestry Research (CIFOR), in coordination with the Rights and Resources Initiative (RRI), at more than 30 sites in 10 countries that have all promoted, in some way, greater local rights to forests (Larson et al. 2010c). The countries are in Asia (India, Nepal, and the Philippines), Africa (Burkina Faso, Cameroon, and Ghana) and Latin America (Bolivia, Brazil,

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Guatemala, and Nicaragua). Two additional articles have been added to the collection, from Kenya and Bolivia, based on research by colleagues working on similar issues.

This introductory article is organised as follows. The following section introduces the research project, methods and types of reform studied. Section 3 reviews key aspects of the international context that led to reforms. Section 4 presents the cases included in the research, country by country, with a short introduction to the two additional cases. Section 5 briefly discusses some of the central research findings before closing with an introduction to each of the articles in this special section.

THE RESEARCH PROJECT

The CIFOR-RRI research project, ‘Improving equity and livelihoods in community forestry: A global action- research initiative in support of a strategic partnership on rights and resources’, was aimed at studying and supporting ‘community forestry’, understood broadly as communities¹ managing forests; it was specifically aimed at examining the implementation and outcomes of policies for devolving forest resources to communities and forest user groups—or forest tenure reforms. The central goal was to generate strategic, policy- and action-oriented analytical information to advance pro-poor, rights-based policies, institutions, and processes at multiple scales. Wherever possible, it was implemented in collaboration with local partners in the selected countries.

Because of the priority on policy action research, the countries were chosen based in part on the potential for impact. The sub-national regions and sites within those regions were chosen in order to address questions that were useful to the needs of national collaborators to help further and improve the reforms. Specific funding was provided for these scoping activities, which permitted a phased approach to the development of the central research questions and study sites.

One key objective of the study was to understand the process of implementing reform—the granting of new rights to communities in practice. The research focused on analysing experiences where communities had been granted formal tenure rights to forests, or where such negotiations were in process, and identifying issues and concerns from the perspective of the socially and economically vulnerable groups that were supposed to be benefiting from these reforms. Research questions were organised around several themes: the effect of tenure change on community rights to access and on decision-making regarding forests, the effect of regulatory frameworks, markets and social organisation on processes and outcomes, and the effects of reforms on livelihoods, forests, and equity². The four thematic papers in this special section examine, in turn, various aspects of the first four themes: changes in access and decision-making rights, regulatory frameworks, markets and social organisations. Many of the case studies address the effects or outcomes of reforms, though with greater emphasis on governance and livelihoods issues than forest or environmental outcomes, as will be discussed below.

Methodology

The sites selected for research usually consisted of a village or more commonly a group of villages or of people from several villages, in a country or sub-national region where a tenure reform of some kind had occurred or was in process. If the community constituted a group rather than a single village, it was organised in some way, usually around a forest, and one or two villages were selected for ground-truthing and the gathering of certain types of data (such as on livelihoods effects). Within each country or region, at least two such sites and as many as five were selected for comparison.

Within countries, the variation among sites was based on the variables most relevant for understanding the type, extent or outcome of tenure reforms in the national context. In some cases, then, selected research sites represented different kinds of reform, while in others, they varied based on key differentiating characteristics such as the presence or absence of a community forestry project, the type of social organisation, the type of forest or ecological region, and so on.

Extensive effort was placed on the contextualisation of reforms and implementation processes at multiple scales. This was seen as central not only for the accurate interpretation of the site-level information, but also in order to make the findings as useful as possible for the policy-action arena. Hence information was gathered at all scales seen as relevant, from the village or group (the ‘community’), to the sub-region and national scales. In addition, literature reviews or annotated bibliographies were prepared at regional scales for Asia, Latin America, and West Africa.

The combination of policy-action and research goals provided both disadvantages and advantages for a global comparative study. On the one hand, sites or even types of reform were not chosen to be strictly comparable, hence highly contextualised qualitative assessments were prioritised over quantitative methods. On the other, because of the interest in supporting policy outcomes, partners and communities were often very engaged in the research, and access to the ideas and perceptions of interested actors at various scales was extensive, permitting a deeper understanding of the processes involved.

With regard to outcomes of reform, all of the studies used a combination of qualitative and quantitative assessments of livelihoods, income, forest condition, and equity, but again, the quantitative assessments were not standardised across the sites. For example, it was not possible even to measure forest cover change through comparable methods such as remote sensing in a way that would have been meaningful. This is in part because many of the reforms are still in process and in part because of the lack of comparable ‘before’ data and insufficient funding to address these shortcomings³. Hence the articles in this special issue focus primarily on the politics and economics of governance and livelihoods.

All of the research was carried out using the same set of central research questions, key theoretical and background readings, hypotheses and definitions of key terms, though the specific methods used to obtain information varied. In almost

all cases partner organisations and/or developing country nationals spearheaded the research, and lead researchers all had extensive experience in the countries studied.

Types of reforms studied

In the end, the research examined a broad range of ways in which formal rights to forests were recognised or new rights were granted to communities. They include the titling of large territories, as in indigenous lands in Nicaragua and Bolivia, or smaller areas in the Philippines; titling to individuals with a common area for forests, as in colonist communities in Brazil; titling of agro-extractive communities in Northern Bolivia; the granting of community forests in perpetuity in Nepal; the establishment of an agro-extractive reserve (RESEX) in Brazil⁴; community forest concessions in Guatemala and Burkina Faso; renewable leases for ‘wasteland’ management through cooperatives on village common lands in India; various types of co-management, collaborative management or community forestry agreements through contracts in Cameroon, Ghana, Burkina Faso, and the Philippines; individual contracts for tree planting with future individual and community revenue sharing in Ghana; the recognition of ‘communal lands’ in Guatemalan law; and community benefit-sharing from logging in Ghana.

Who are the beneficiaries? Some reforms specifically respond to demands for ancestral rights, and these are the ones that, in our study, appear more likely to provide land titles⁵. In all of our cases, these occur in former Spanish colonies (Latin America and the Philippines). Others—the vast majority—are specifically aimed to benefit communities that have traditionally lived in and near forests or used forest resources, though they are not necessarily considered ‘indigenous peoples’. This is the case of the Nepal forest user groups, village cooperatives in India, the agro-extractive reserve in Brazil and agro-extractive communities in Northern Bolivia, most of the African cases, the communities in the Philippines benefiting from community-based natural resource management (CBNRM) and co-management arrangements, some highland communities in Guatemala, and a few communities benefiting from concessions in the Petén, Guatemala. Finally, some reforms have benefited more recent colonists—specifically, colonist communities in Brazil and many of the concessions in the Petén in Guatemala. All of the cases benefit collectives, though a few have an individual element as well, such as the Ghana tree planting contracts and colonist communities in Brazil.

The most extensive reforms in terms of the rights granted are those that grant permanent, secure rights to forests in perpetuity. These include land titles, for example, for indigenous territories in Nicaragua, Bolivia and the Philippines, or the granting of forest rights in perpetuity to communities in Nepal (though activists were seeking to obtain constitutional guarantees as well; Paudel pers. comm.). What communities are allowed to do with those forests is, of course, always subject to national regulations, but may also be subject to additional rules and regulations (Larson and Pulhin This issue). In most of the other cases, rights are either less secure or less permanent; they often

tie communities to specific rules and obligations (Cronkleton et al. This issue). The ‘bundle of rights’ will be discussed below.

INTERNATIONAL CONTEXT OF REFORMS

Over the past 30 years, numerous studies of devolution, decentralisation and community forestry have examined cases in which local people have been granted rights—and/or responsibilities—to the forests in which they live. Together, they have demonstrated a wide degree of variation in policies, goals, implementation strategies, and outcomes, and have shown that no particular experience to date constitutes a panacea for achieving both livelihoods and sustainable forest management goals.

Some of the earliest documented cases come from Asia, particularly Nepal and India. Nepal’s first experiment with community forests involved the development of plantations in the middle hills on bare lands under the control of local government (*panchayats*), beginning in 1978. However, these were only successful in a few districts where forests were seriously depleted (Gilmour 2003).

In India, social forestry was developed in 1976 explicitly as a policy to reduce the pressure on production forests by providing non-forest and degraded forest areas to villagers. As stated by the Government of India:

One of the principal objectives of social forestry is to make it possible to meet [the rural populations’] need in full from readily accessible areas and thereby lighten the increasing burden on production forestry. Such needs should be met by farm forestry, extension forestry, and by rehabilitating scrub forests and degraded forests (GOI 1976: 25, cited in Saxena 1997).

As in Nepal and the Philippines, the strategy was based on the assumption that local people would freely invest their labour in these government-imposed models, and with little understanding of how people already used and managed forests.

These earliest examples of community forestry were not based on the recognition of community rights to forests. In fact, in both cases it was clear that communities were seen as the ones who had destroyed forests and to some extent had an obligation to generate new resources. For example, the same document from the Government of India cited above also stated, “Having over-exploited the resources, [the rural people] cannot in all fairness expect that somebody else will take the trouble to provide them with forest produce free of charge” (GOI 1976: 25, cited in Saxena 1997). Information regarding the rights of access and forest resource use that people did have was in fact kept from them “partly due to the fear that it would aggravate degradation, and partly due to the administrative culture of the [Forest Department] of keeping people in the dark” (Saxena 1997).

What these early cases suggest is that local people held certain legal rights to forest access and use (though perhaps against the will of the forestry administration); nevertheless,

devolution or community forestry initiatives were not based on an expansion of those rights or, even less so, on a recognition of any kind of customary or pre-existing rights to forests. A number of factors began to change this situation.

Documentation of endogenous community forest management

During the 1980s in Nepal, foresters and researchers began to document the ways in which local people in the middle hills were already managing forests through local informal institutions. This had an important impact on the ground, as these professionals began, at the same time, to develop and test “modalities for planning and implementing community forestry” during this period. Their research led to a shift in national policy to a model based on forest user groups by the early 1990s (Gilmour 2003).

Scholarship on the commons

The documentation of local practices for forest management was particularly supported by growing scholarship on common property institutions, developed by Elinor Ostrom and colleagues. Ostrom (1990) demonstrated that groups of people could come together for the shared management of resources and developed a set of design principles that successful “long-enduring common resource institutions all seem to share” (Mwangi 2010). In a review of Ostrom’s contribution to knowledge on forests, Mwangi (2010) finds that “The number and reach of studies in the forest sector that draw directly from Ostrom’s foundational work is overwhelming.”

Challenges to discourse blaming communities

A number of researchers began to challenge the assumptions behind statements and policies, such as those of the Indian government above, that blamed people living in forests as the primary culprits of deforestation and degradation. For example, Fairhead and Leach (1996, 1998) have written extensively on external interpretations of environmental change that drive development discourses, particularly in West Africa, and found these interpretations both to be inaccurate and to differ considerably from local perspectives. Literature on swidden agriculture and the use of fire demonstrated that it could be a rational, productive use of forests (Dove 1983), and that repression of these practices may be a smokescreen for other interests (Kull 2004).

Failure of state-owned forests

Another important factor behind the change was the assessment that numerous state forests, after decades of state control, were in poor condition (Poffenberger 2001). Centralised state management, of both protected areas (Hecht and Cockburn 1989; Rao and Geisler 1990) and logging (Brunner et al. 1999, Poffenberger 2006), had largely failed to control deforestation and forest degradation. Poffenberger (2006) writes:

The rise of state agencies and private companies as forest managers has generally coincided with an accelerating loss of natural forests throughout the Asia region during the post World War II era. In Southeast Asia, tropical rainforests receded from 250 million ha in 1900 to below 60 million ha in 1989.

A World Bank assessment found that where traditional or indigenous systems had existed previously, states had failed to replace them with more effective institutions (Bromley and Cernea 1989).

International movement for indigenous rights

The movement for the recognition of indigenous rights emerged on the global stage in the 1980s and 1990s. It obtained victories there that indigenous organisations had not been able to obtain at the national scale, such as the International Labour Organisation (ILO) Indigenous and Tribal People’s Convention No. 169 of 1989. Article 14 guarantees the recognition of “the rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy”. Article 15 protects their rights “to the natural resources pertaining to their lands [and] the right... to participate in the use, management and conservation of these resources.”

The meeting of conservation and development

In 1987, the Brundtland Commission called for a new focus on ‘sustainable development’, and in 1992, the Rio Declaration on Environment and Development declared that “human beings are at the center of sustainable development.” Roe (2008) writes that conservation and development policies from the 1980s to the mid-1990s came together around these ideas of sustainable development through policies promoting decentralisation and local participation. One of the results was that conservation policies and projects more often promoted engagement with local people rather than, for example, their removal from protected areas.

These are some of the main factors that have led to greater recognition of community rights to forests through devolution, decentralisation, and community forestry policies. There are undoubtedly others, and at times cause and effect are not straightforward⁶. But all of these dynamics contributed to greater acceptance of the ideas that people living in forests could be good forest managers and/or may have legitimate rights to them.

Hundreds of articles have since been published on local forest management experiences, yet relatively few overarching lessons have been drawn. Some have declared community forestry a failure (e.g., Blaikie 2006), others a success. A number of authors have identified sets of biophysical, socioeconomic, and institutional variables that are relevant to success, such as forest size and bounds, group size and homogeneity, the nature and design of rules, and the stability of external conditions (see Agrawal and Chhatre 2007 for a

list of specific variables and sources). One meta-analysis of 69 cases identified 43 independent variables and found that the most important for success were well-defined property rights, effective institutional arrangements, and community interests and incentives (Pagdee et al. 2006).

One important problem for understanding patterns is that results are highly context specific, depending on local, as well as national, ecological, social, and economic context, policies, governance and history (Pagdee et al. 2006; Charnley and Poe 2007). In their study of forest cover over time, Dietz et al. (2003) found that the three main types of governance institutions—public, private and community—are each, at times, associated with decline, no change, and improvement in forest cover. Agrawal and Chhatre (2006: 164), in their study of 95 cases of community-based forest governance in Himachal Pradesh, India, conclude that “it may be impossible to identify a set of necessary and sufficient conditions that constitute a theory... of the commons and local resource governance.”

Are the failures of community resource management due to the policies, their implementation or the capacity of local people? With regard to decentralisation policies, Ribot (2004) argues that democratic decentralisation has not actually been implemented, hence what we are analysing are the outcomes of partial decentralisations at best. Similarly, ‘community forestry’ consists of dozens of different policies under a variety of names. How can research provide better ways to understand policy and practice?

COUNTRIES AND CASES STUDIED

This section provides a brief introduction to the cases studied, though, in the end, not all of them are discussed in the articles in this special section. Also, partly by chance and partly by choice⁷, the thematic articles tend to use cases for comparison from Latin America and Asia, while the case study articles, for

their part, cover two of the African countries studied (Ghana and Cameroon), and two very different conditions and regions in Guatemala (the large lowland tropical forests of the Petén and the fragmented pine forests of the highlands). The two case study articles that were not part of the CIFOR-RRI research project analyse an indigenous territory in Bolivia (a different one than that covered by the project), and participatory forest management in Kenya, a country that was not included in the research. This section will review the various cases by region and by country (Figure 1).

Asia

Reforms in Asia are among the oldest and, as mentioned earlier, tended to concentrate in their early years on obtaining community labour for forest plantations and protection of natural regeneration. New initiatives built on lessons learned from those early experiences and have often gone much further in granting rights, as well as responsibilities, to forest communities. Today, 68 per cent of forests of Asia and the Pacific are owned and administered by governments, 25 per cent are owned by communities and indigenous peoples, 3 per cent are owned by governments but designated for use by communities and indigenous peoples, and 4 per cent are owned by individuals and firms (RRI and ITTO 2009).

The Nepal cases represent one of the most substantial reforms studied, with a community forestry policy that has emerged from the experiences of the 1970s and 1980s mentioned previously. Community forestry “has evolved through a small, localised, and exploratory forest management modality to a major national programme involving about 40 per cent of the total population”; the 25-year Master Plan for the Forest Sector, approved in 1989, legitimised local forest use and recognised community forestry user groups (CFUGs) “as the key institution in managing the forests”. At the time of

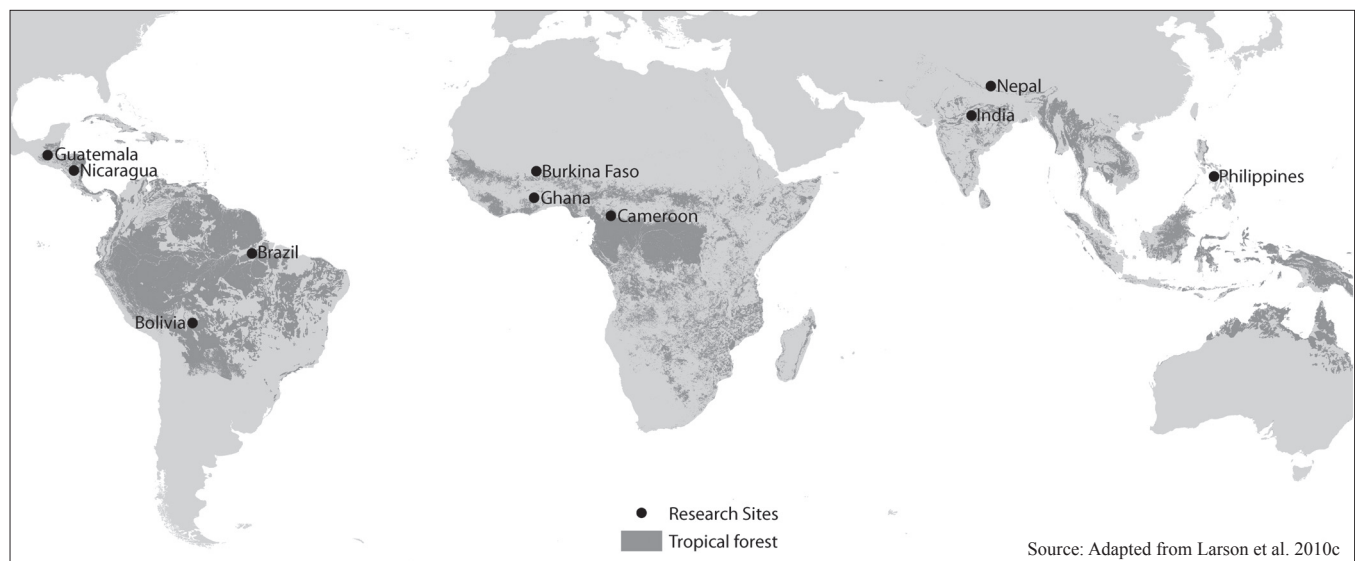


Figure 1
Map of the countries studied

the study, about 21 per cent (1.2 million ha) of Nepal's forests had been handed over to local communities organised in more than 15,000 CFUGs (Paudel et al. 2009).

The devolved forests have presumably been granted to communities in perpetuity, but the state forest bureaucracy can dissolve the executive committee of a CFUG and call for a new election (Paudel pers. comm.) and, in general, plays a substantial role in controlling the harvest of forest products, particularly timber. The case studies focused on four CFUGs with approved operational plans in four different geographic regions—the lowlands, the middle hills (one rural and one peri-urban), and the high-altitude hill region. The second-level organisation emerging from the CFUGs, the Federation of Community Forest Users, Nepal (FECOFUN), has played a central role in expanding community rights and negotiating with the forest bureaucracy at the national level. In the articles in this special issue, information on the Nepal study can be found in Paudel et al. (see also Paudel et al. 2009).

The Philippines also represents a country with a relatively long history of forest tenure reforms in favour of upland communities. Following on the social forestry programmes (that began in the 1970s under the Marcos dictatorship), which were much more limited in scope, the most recent and far-reaching of these reforms accompanied the return to democracy and Marcos' fall in 1986. As in Nepal, these new policies “were based on the assumption that the ultimate survival of the Philippine forests lies in the hands of smallholders”; at the time of the study, almost 6 million ha, for 38 per cent of the country's lands classified as forest, were under community-based forest management (CBFM) arrangements involving almost 700,000 households (Pulhin et al. 2008). The CBFM scheme does not provide rights in perpetuity, but rather rights are conditional and temporary, based on 25-year renewable agreements. Two of the research sites involved communities with CBFM arrangements. A third site involved a co-management agreement between local government and a community. In this special issue, one of the CBFM cases is included in Cronkleton et al. (see also Pulhin et al. 2008).

A different type of reform involves the recognition of indigenous communities' ancestral land claims in perpetuity, a right granted through the Indigenous Peoples' Rights Act of 1997. These claims are recognised through a long, bureaucratic process that results in the granting of full title through a Certificate of Ancestral Domain Title (CADT). The fourth Philippines case study examined one of the first of these areas to be titled, the Ikalahan forest reserve. This case is not used in the analyses found in this special issue (for more on the ancestral domain case specifically, see Larson et al. 2010d).

The policy progression in India is similar, with formal community participation in forestry established through social forestry in the 1970s (as described earlier), and after 1990 through other policies such as Joint Forest Management (JFM)⁸. The 1988 Forest Policy was radically different from previous policies, shifting the focus of forestry from industry to local livelihoods and establishing the basis for more substantial community participation in forest management (Saxena 1997).

Nevertheless, JFM still did not recognise tenure rights beyond usufruct rights. The result was increasing disillusionment over the unmet demands of forest-based peoples. Those demands came to a head in 2002, in response to an unprecedented Supreme Court directive to evict all illegal forest encroachers in a four-month period; “the ensuing uproar radicalised and mobilised popular movements and new common cause was recognised between forest-dependent groups across the country” (Springate-Baginski et al. 2009: 18).

The Forest Rights Act⁹, passed in 2006, finally recognised the rights to forest land of Scheduled peoples and other traditional forest dwellers. However, like many of the other cases in this study (see also Larson 2010a), implementation has been fraught with conflict and the need for ongoing mobilisation to overcome foot-dragging, bureaucracy, and opposition (Ramdas 2009; Springate-Baginski et al. 2009; CSD 2010). In this dynamic and unfolding process, the Government of India's National Advisory Council recently issued a set of guidelines to strengthen implementation (*The Hindu* February 27, 2011).

The research here focused on one of the few cases of more substantial tenure rights that began before this latest wave of reform. This programme, known as the Tree Growers' Cooperative Society (TGCS), created cooperatives to establish and manage tree plantations on village common lands legally classified as wasteland. This programme was selected because it “is arguably among the more robust institutional models tried in Indian forestry”; unlike JFM, for example, it established a formally registered body with “a legal identity independent of the project”, and land is transferred through a formal lease (Saigal et al. 2009: 20). The programme has existed since the 1980s, and in the sites studied, the cooperatives created under the TGCS programme had been operating for over a decade without any significant external support. In 2007, there were 548 tree growers' cooperatives. The study examined three TGCS sites in Rajasthan, in the same province and ecological region. The three villages had obtained 25-year leases, renewable in additional 10-year increments, to state land classified as ‘revenue wasteland’. The India cases are discussed in this special issue in Cronkleton et al. (see also Saigal et al. 2009).

Africa

African forests are still overwhelmingly formally owned by the state, while customary institutions have de facto rights to, and sometimes control over, forest resources. Almost 98 per cent are formally under government ownership and administration (RRI and ITTO 2009). Beginning in the 1990s, reforms have been more recent than in Asia. A distinguishing characteristic of the African cases is the importance of customary institutions—as well as customary authorities—in the context of forest rights.

Ghana has implemented various policies since 1994 under the name of collaborative forest management, after the Forest and Wildlife Policy set the stage for greater community participation. Land and tree tenure in Ghana are extremely

complex, with rights varying, among other things, based on land tenure (e.g., family or communal, on or off reserve), the origin of the tree (planted or natural), and the use of the tree or tree product (domestic or commercial). Also, since the enactment of the 1962 Concessions Act, tree tenure is officially vested in the President, who manages all the trees in Ghana on behalf of the chiefs, who are the landowners. Nevertheless, an important 1997 reform prevents the state from granting a logging concession on private land or farmland without written permission from the landholder (Marfo 2009).

Collaborative Forest Management is aimed at increasing community participation in forest management, primarily in improving forest production, but without altering the underlying tenure rights. The research focused on two very different cases. The first included three communities utilising the Modified Taungya System (MTS), which increases rights over trees planted as part of the Taungya System introduced in the 1920s. Under the old system, farmers were granted land for agriculture in return for tree planting, which they then used for two to three years until shade prevented further cultivation—they had no rights to the trees. The new system provides farmers with a share of the profits from future tree sales, but could do better to increase livelihood security through greater trust and transparency, the signing of contracts, and by permitting the use of credit arrangements against future profits (Marfo 2009). The second case is a unique situation in which a group of communities requested state support to protect an area of forest that was being degraded.

The Ghana research paid particular attention to the issue of representation and authority, based on benefit-sharing arrangements for timber revenues that were established in the 1992 Constitution. Though this was not specifically part of the field research, it was a central concern of the accompanying literature review and analysis. These benefit-sharing arrangements were established so that revenues would return to the communities from which trees were being sold, rather than accruing only to the central government. Nevertheless, funds rarely reach farmers due to the limited accountability of traditional authorities. The case study on Ghana focuses mainly on the issue of benefit sharing (Marfo This issue; for more on the case studies see Marfo 2009).

Severe economic crisis in the 1980s in Cameroon led, among other things, to demands for community participation in forest management and a new forestry law in 1994. The 1996 Constitution recognised local communities' historic rights to benefits derived from natural resource exploitation. One of the primary ways in which such recognition has been implemented is through the granting of community forests, about 167 of which had been established at the time of the research. Nevertheless, obtaining a community forest recognition is highly bureaucratic, time consuming, and expensive. Out of 167, only 47 were being managed and exploited at the time of the study. Also, community forests are only permitted in the non-permanent forest estate, or the lower quality agro-forests on customary land near villages, rather than in the higher quality state forests, which include production forests (Oyono et al. 2009).

The research took place in four research sites that included villages organised around 13 community forests. A fifth site involved a different participation mechanism—the sharing of forest revenue with local communities. In all of the cases, forest management and revenue is managed by committees representing the communities—usually elite groups with little accountability; in the fifth site funds were managed by the rural council and other administrative authorities, with little community knowledge or input. Control over forest exploitation is only strong in one community where traditional forest management institutions are still robust. The Cameroon case is presented in this special issue in Oyono et al.

Burkina Faso's 1991 Constitution recognised community rights to participate in the administration of collective lands, and classifies natural resources as the common property of the people. The land tenure system is still largely dominated by indigenous practices and customs, but prevailing land law maintains the principle that the state owns all lands, except where individuals have claimed exclusive property rights. If a village wants to obtain forest management rights, the rules are different depending on the law: the 1997 forest code refers to local villager organisations, while agrarian law refers to village land management committees. In practice, concession contracts are the principal way in which rights are devolved to communities in officially 'managed' forests, and villagers must form private associations or cooperatives to obtain a contract. Elected village development councils have the authority over 'non-managed' forests (Kante 2009).

The cases studied included a variety of arrangements. Three cases were concessions—one in a forest and wildlife reserve, and two involving management for commercial fuel wood production. Both of the latter were in classified forests, one in central and one in local government domain. The fourth case involved a local association managing an area for forest regeneration. The main emphasis of the research and analysis in Burkina Faso was specifically related to the use and evolution of customary institutions for forest access, and the clash between customary and statutory institutions. In the areas in our study, communities were permitted to use customary practices but only if they did not contradict statutory law. In general, communities have only use rights, while state forest agencies make the major management decisions (Kante 2009). The Burkina Faso case is not included in this special section.

Kenya was not part of the CIFOR-RRI research, but a case study is presented in this special issue by Mogoi et al. As in the other African cases, decentralisation reforms have led to the development of initiatives to support community participation in forest management. In the Kenyan case, the main impetus was rapid deforestation in the 1990s, and participation of local communities was institutionalised quite recently, in 2005, in the new Forests Act. Participation involves the creation of Community Forest Associations (CFA), which can sign agreements—granting both rights and responsibilities—with the Kenya Forest Service for access to forests.

Latin America

Devolution of forest rights in Latin America has a somewhat different history than in the other two regions. Its origins are tied less to forests and more to land, and specifically to the land rights struggles of the region's indigenous populations, though many types of communities have since benefited from reforms. The areas for which local rights are being recognised also tend to be orders of magnitude larger than most of those in Asia or Africa and with much larger areas per capita. For example, almost 110 million ha of forest are owned by indigenous people and communities in Brazil, 40 million ha in Mexico, 28 million ha in Colombia (RRI and ITTO 2009)¹⁰. With regard to land per capita, in our study sites, forests granted to CFUGs in Nepal range from 100 to 635 ha, sometimes less than 1 ha per person, whereas one of the concessions in the Petén, Guatemala, covers 65,000 ha, i.e. 190 ha per member; titling in Pando, Bolivia, granted enough land to have 500 ha per family, in order to promote sustainable Brazil nut extraction (Dahal et al. 2010).

Overall, the percentage of forests owned by communities in Latin America is similar to that of Asia, but ownership by individuals and firms is much greater, hence only 36 per cent are owned and administered by the region's governments; 25 per cent are owned by communities and indigenous peoples, 7 per cent are state-owned but designated for use by communities and indigenous peoples, and 32 per cent are owned by individuals and firms (RRI and ITTO 2009).

In Nicaragua, the most substantial change in local forest rights is directly related to the recognition of indigenous land rights. Two autonomous regions, which house the vast majority of the country's forests and indigenous populations, were created by statute in 1987 as part of peace negotiations taking place between the government and dissident groups that supported counter-revolutionary forces during the 1980s' war. That same year, the new national constitution recognised the rights of indigenous peoples and ethnic communities to their cultural identity, forms of organisation and property, as well as to the enjoyment of their waters and forests. More than 15 years later, in 2003, the Communal Lands Law was finally passed, establishing the institutional framework for demarcation and land titling.

By 2007, indigenous leaders were actively promoting the formation of large indigenous territories under a supportive central government administration. Several of those territories are now titled. The case study research focused on two groups of communities—Tasba Raya, with individual land titles and some untitled common forest, and Layasiksa, with only untitled common land. Neither had territory titles at the time of the study, though Tasba Raya was titled as part of a larger territory in 2010. The analysis focused on the political conflicts behind the process of forming territories (Larson and Mendoza-Lewis 2009; Larson 2010b). Layasiksa has the most advanced community forestry initiative in the country, and this case is discussed in this special issue by Pacheco.

A combination of important reforms in the 1990s in Bolivia improved community access to forests in a number of ways. The forest law of 1996 devolved rights over forests to a large

range of stakeholders, permitting indigenous communities and non-indigenous smallholders the right to manage forests and to log with an approved management plan. The agrarian reform law that same year recognised collective lands and a type of communal property for indigenous people known as Original Community Land (*Tierra Comunitaria de Origen*, TCO). The emphasis on these new property types emerged "partially in response to growing indigenous activism, particularly in the eastern lowlands where the territorial needs of indigenous and peasant smallholders have long gone unresolved or ignored" (Larson et al. 2008: 18).

The research examined two different regions¹¹, involving a TCO in the Guarayos province, and the titling of agro-extractive communities in Pando. For indigenous groups, the Vice-Ministry of Indigenous and Original People's Affairs (*Viceministerio de Asuntos Indígenas y Pueblos Originarios*, VAIPO) undertakes a needs assessment to evaluate TCO claims and determines the size and shape of the TCO, then the Agrarian Reform Institute (*Instituto Nacional de Reforma Agraria*, INRA) 'immobilises' the area, prohibiting the entrance of new claims inside the borders. Demarcation and titling involves a long process of evaluation of all competing claims. The Guarayos case demonstrates many of the difficulties of this process, as well as the role of forest management initiatives. In this special issue, the Guarayos case is explained by Cronkleton et al., and one of the specific communities studied, which has a commercial logging operation, is discussed in Pacheco. Though the Yucararé case presented in this special issue in León et al. was not part of the CIFOR-RRI research, it similarly addresses the experience of a TCO, focusing on the institutional conditions of forest governance before and after implementation of the tenure reform.

The study in Pando involved the titling of large areas, particularly of forests used primarily for Brazil nut extraction, to agro-extractive communities. Decentralisation policies in the 1990s established a process for rural communities to obtain legal standing in order to participate in municipal governance processes. These organisations, known as Territorial Base Organisations (*Organizaciones Territoriales de Base*, OTBs), became the basis for community land claims. Their primary competition came from former forest estate owners called *barraqueros*, who, during the titling process, attempted to regain control over a region they had largely abandoned when the price for non-timber forest products (NTFPs) dropped in the 1980s. Nevertheless, "the collective response from the region's indigenous and rural producer organisations swung the agrarian reform in the communities' favour" (Larson et al. 2008: 41), and the overall experience has been highly successful. The Pando case is not included in this special issue (for more information, see Cronkleton et al. 2009).

In Guatemala, the research covered two very different regions, the community concessions of the Mayan Biosphere Reserve (MBR), and the small communal forests of the highlands. The MBR was created in 1990 to protect the diverse natural and cultural resources located in the northern Petén region. Various factors led to the development of the

community concessions in the portion of the MBR known as the Multiple Use Zone, including the poor conditions resulting from private logging concessions and an alliance between conservation organisations and communities living in the region (Monterroso and Barry 2009). The concession contracts grant community concessions the right to the exclusive use of the defined area and its resources for 25 years. Unlike industrial concessions, the community concessions allow the use and management of both timber and NTFPs. The concession contracts require all resource extraction to be organised collectively and based on management plans approved by the state's National Council for Protected Areas (*Consejo Nacional de Areas Protegidas*, CONAP). The research focussed on two concessions out of 12—one to a community living inside the reserve that had primarily subsisted on NTFPs previously, and one to an organisation formed by members from nine more urban villages and towns. In this special issue, the concessions are described more fully by Monterroso and Barry; the Petén study is also used for comparison in two of the thematic studies, by Cronkleton et al. and by Paudel et al.

The Guatemala highlands study involved a much more attenuated tenure reform. In fact, of all the reforms studied, it is probably the most incipient and thus the least implemented. The goal was to examine the recognition in law, for the first time, of the existence of communal lands, and the results of policies encouraging communal forest management in the highlands. At the time of the study, however, there were still considerable administrative and other barriers to implementing the cadastral reform, which was supposed to allow the titling of communal lands.

There are hundreds of communal forests in the Guatemalan highlands, known under a variety of official land tenure types, particularly municipal *ejidos* and numerous joint ownership arrangements (Elías et al. 2009). The study involved a regional analysis as well as case studies of four communities, each demonstrating different ways in which communities obtain and maintain commons. One community owned its land and forest through a co-ownership arrangement among all the individual proprietors; the three others were officially on municipal lands. Of the latter three, one had fought and won the municipal government's recognition of its rights over a 50 ha forest that had historically been communal. Another had claimed ownership over an area that had been abandoned by its owner and which the community had managed as communal forest since 1992. The last community is subject to the municipal government's decisions, and the declaration of a protected area led to restrictions on use, divisions in the community, and the fear that the community will lose control over the land. The article by Elías presented in this special issue draws more on the regional analysis than the individual case studies (for more on the cases, see Elías et al. 2009).

Brazil's approach to property rights in the Amazon region has long involved promoting occupation and development, including massive colonisation efforts to settle what was previously seen as an 'empty' frontier. New forms of settlement and the recognition of the rights of people already living in

the Amazon were the result of grassroots movements and NGO pressure. One of the most important initiatives was the formation of the National Rubber Tappers' Council, the first national organisation capable of representing the interests of rubber tappers and other forest workers in the Amazonia effectively (Schmink and Wood 1992). This led to the creation of new models for the recognition of agroextractive settlements, including extractive reserves (*Reserva Extrativistas*, RESEX), under the jurisdiction of the Brazilian Institute for the Environment and Natural Resources (*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis*, IBAMA). Other models of settlement continue to be under the jurisdiction of the Agrarian Reform Institute, but with new models that include collective as well as individual rights, such as Sustainable Development Projects (*Projeto de Desenvolvimento Sustentável*, PDS), which are intended to promote forest conservation through collective management.

The research focused on two settlement communities on the border of a RESEX in Porto de Moz, and two colonisation settlements in different stages of evolution in the Transamazon region, which are being titled under the PDS model. The articles in this special section include a brief discussion of the RESEX in Larson and Pulhin, and of one the settlements on its border that is involved in logging in Pacheco. The Transamazon cases are not included here (for more information, see Larson et al. 2008, and Pacheco et al. 2008).

CENTRAL RESEARCH FINDINGS

This research looked at cases around the globe, from the perspective of those claiming, demanding or apparently obtaining the recognition of rights. One central issue for comparison was the change in rights and ownership patterns—to what extent did the policy increase rights by law and then, most importantly, in practice?

We used the concept of the bundle of rights in order to break down tenure rights into its different components, and particularly to separate out use versus decision-making rights. The bundle (Schlager and Ostrom 1992; Meinzen-Dick and Knox 1999; Agrawal and Ostrom 2001) includes rights to enter the area (access right); to use the land and withdraw resources (use right); to manage the landscape and plan for future use, such as tree planting or timber management (management right); to determine who can and cannot use resources (exclusion right); and to sell or transfer these rights to other parties (alienation right). On lands that are formally public or state property, which is often the case with forests, people or groups may have one or more of these rights. The rights may be officially sanctioned by the state or they may be sanctioned in other ways such as by ancestral domain or customary claims.

Table 1 presents a partial summary of the findings regarding the changes in rights in practice (the full explanation of the methods for deriving this table can be found in Dahal et al. 2010). Effective implementation refers to the establishment of a policy as well as associated laws and regulations with 'demonstrated progress through identifiable steps towards

meeting the reform's goals'. The table classifies access and use rights under 'no change', 'increased' or 'consolidated'. Management rights either permit local rules or are dominated by external control—beyond straightforward regulations (Larson and Pulhin, This issue). Exclusion rights are classified as either weak or strong.

One of the most striking findings is that—in spite of there having been an important shift in discourse and a clear rise in policies granting new rights to local communities in forests—substantive changes in decision-making rights are often quite limited. The table demonstrates clear increases in access and use rights, but with regard to management decision-making, there is often significant external control. When there are local rules, these usually apply only to low value products or non-commercial uses. Exclusion rights are strong in the cases that have been effectively implemented, though in some cases these are not granted by law but are maintained by powerful local authorities (e.g., in Burkina Faso). Alienation rights have not been granted in any of the cases.

The most complex piece of the bundle concerns the management rights. As can be seen from the table, it becomes difficult to differentiate among the cases, and far more needs to be done to detail that complexity—the topic of the article by Cronkleton et al. in this special issue. When forests are 'granted to' communities or community rights are 'recognised', rights continue to be tied to obligations or limited by state rules and regulations—the topic of the article by Larson and Pulhin in this special issue.

Hence, with regard to rights, it is not enough to look at the bundle alone to distinguish between types of reforms.

In addition to a greater understanding of management rights and regulations, the analysis requires a time dimension and a security dimension. Time refers to the duration for which the right is granted, as through a temporary contract or project versus a permanent legal reform.

Security is a particularly complex issue. It is measured in many different ways, though Sjaastad and Bromley (2000) argue that it should refer only to the assurance of rights, or the risk of losing them. Security on paper and in practice are two different issues, and the latter requires a close understanding of context. Security in practice is related to the issue of exclusion rights, as in the table, but security can change at any time due to new threats. Another key finding of the research, then, was the extent to which reforms and their implementation are constantly being challenged by competing interests (Larson et al. 2010a; Larson 2010a). Hence the importance of social movements in the defence of rights—the topic of the article by Paudel et al. in this special issue.

Another central finding of the research relates to the outcomes of reforms: without substantial efforts to level the playing field and improve livelihood options, communities are unlikely to see large gains from their new rights. In this special issue, the fourth and final thematic article by Pacheco examines one aspect of the outcome of reforms—the engagement with timber markets¹².

A number of questions remain to be addressed in future research. Some are related to the *depth of rights*. The bundle of rights refers only to what rights are granted but not why, or the underlying basis for the claim. When do communities

Table 1
Changes in rights in practice

	Reform	Access	Use or withdrawal	Management	Exclusion	Alienation
More effective implementation						
Nepal	Community forests	Consolidated	Consolidated	External control	Strong	Not granted
Guatemala (1)	Community concessions	Increased	Increased	External control	Strong	Not granted
Philippines (1)	Indigenous rights	Consolidated	Consolidated	Local rules and external control	Strong	Not granted
India	Tree planting	Increased	Consolidated	Local rules	Strong	Not granted
Bolivia (1)	Agroextractive community	Consolidated	Consolidated	Local rules+	Strong	Not granted
Nicaragua	Indigenous rights	Increased	Consolidated	Local rules and external control	Strong	Not granted
Brazil (1)	Colonisation communities	Consolidated**	No change	External control	Strong	Not granted
Burkina Faso	Concessions*	No change	Consolidated	Local rules and external control	Strong	Not granted
Less effective implementation						
Cameroon	Community forests	No change	Increased	Local rules and external control	Strong	Not granted
Guatemala (2)	Communal forests	No change	No change	Local rules and external control	Weak	Not granted
Philippines (2)	Community-based forest management (CBFM)	Increased	Increased	External control	Strong	Not granted
Brazil (2)	Extractive reserves or Reserva Extrativistas (RESEX)	No change	Consolidated	Local rules and external control	Weak	Not granted
Ghana	Tree planting	Increased	Increased	External control	Strong	Not granted
Bolivia (2)	Indigenous lands	Consolidated**	No change	Local rules and external control	Weak	Not granted
*One concession experienced only an increase in usufruct rights and weak exclusion rights.						
**Access rights were consolidated for communities that have received title, but many others have not.						
+External control applies to logging, but the main livelihood activity in this region is Brazil nut extraction, which is not currently controlled.						

Source: Adapted from Dahal et al. 2010

have the basis for a rights claim, separate from rules and regulations about forests, and when should they be tied to forest obligations? How does the origin of claims affect their implementation? Under what conditions do more substantial reforms move forward, overcoming political resistance? More comparative detail is needed on the anatomy of the politics of reform.

Greater understanding is needed on the *security of rights*. Tenure security is far more complex than legality. What are the factors affecting and defining security, and when do reforms result in more secure rights? How can communities and their supporters defend rights in light of ongoing challenges by powerful actors (e.g., interests in mining, petroleum, biofuels, protected areas, carbon trading, etc.)?

Another important arena of research and policy is the level and type of *appropriate control and obligations*. Why should communities have more or different obligations than a private property holder, or than a logging company? How can regulatory frameworks facilitate community participation in markets and build on local institutions instead of replacing them—particularly in light of entrenched bureaucracies? How can more locally-grown management and ‘development’ models be supported? How should the institutional structure and governance be supported (and problems overcome) in multi-community territories or under customary institutions?

Finally, research methods need to move beyond the in-depth case study¹³, combining comparative, quantitative, and qualitative methods. As time progresses, it should also be possible to undertake more studies that permit comparison over time, before and after reforms, particularly regarding the outcomes of reforms for forests, livelihoods, and equity.

BRIEF INTRODUCTION TO THE ARTICLES

All the articles point to one of the central findings of the research—that communities face a very long and difficult road from winning rights on paper to obtaining their implementation, enjoying rights in practice, and improving livelihoods. Though seeking the appropriate balance between livelihoods improvement and forest conservation is sometimes the source of tension, myriad other competing interests often inhibit the full implementation of reforms. In addition, communities face internal challenges, such as governance problems like representation and accountability, as well as capacity. Finally, reforms—or the formalisation of rights—can place a layer of formal rules and obligations over existing—and possibly more effective—local forest governance institutions, with implications for both culture and forests.

Each article presents key challenges and/or ways in which these challenges have been overcome. The first four articles use a selection of cross-site comparisons to present some of the central cross-cutting issues in reform. The remaining six articles examine additional issues through case studies in a single country or sub-national region.

The first thematic article, by **Peter Cronkleton, Juan M**

Pulhin and Sushil Saigal, uses a comparison of four cases of reform—from Bolivia, the Philippines, India, and Guatemala—to explore the extent to which rights have been granted to communities. It focuses on the key role of management rights in the distribution of different aspects of the tenure rights bundle, and the way in which these are often retained by the state. Although tenure reform has opened greater opportunity for local forest management, the transfer of rights to forest communities is often incomplete, resulting in collaborative management systems in which communities and state agencies share responsibilities and benefits of forest management. These co-management systems often place greater burdens on community level actors and lack the flexibility to respond to local diversity or allow adaptation.

The article by **Anne Larson and Juan Pulhin** examines several types of regulations commonly accompanying reforms, which, as with co-management arrangements, severely limit the scope of reforms. Drawing on a number of the case studies, it examines rules that limit areas available to local communities; rules that delineate conservation areas and impose related limits on use; and bureaucratic requirements for permits and management plans, which restrict the commercial use and marketing of valuable forest products. It discusses ways to promote regulations that work for forest conservation but are more responsive to communities.

The article by **Pablo Pacheco** examines how different forms of engagement in timber markets, in the context of tenure reforms, affect benefits for smallholders and communities. It argues that the benefits that communities capture from forest resources depend on several risks and opportunities, which are mediated by two sets of factors—the specific market conditions, and community capabilities for market interaction. The paper analyses four cases from forest communities in Bolivia, Brazil, and Nicaragua, and makes a call for differentiated public policy responses depending on the forms of engagement.

The fourth and final thematic article, by **Naya Sharma Paudel, Iliana Monterroso and Peter Cronkleton**, demonstrates the role of secondary organisations in overcoming the kinds of barriers presented in the previous three articles, thus enhancing implementation and the livelihood outcomes of reforms. The authors discuss how collective action for forest governance has emerged in recent years through second level organisations. Drawing on the experience of the Federation of Community Forest Users, Nepal (FECOFUN) and the Association of Forest Communities of Petén (*Asociación de Comunidades Forestales de Petén*, ACOFOP) in Guatemala, the article demonstrates how these organisations have contributed to deepening the implementation of forest tenure reforms, and to enhancing management benefits for forest-dependent communities.

The next six articles present case studies, respectively, in the Petén in Guatemala, the Guatemalan highlands, Ghana, Cameroon, Kenya, and an indigenous territory in Bolivia. The first case study, by **Iliana Monterroso and Deborah Barry**, discusses the importance of legitimacy to the maintenance or defence of rights in the community concessions in the

Petén in Guatemala. The community forestry concessions demonstrate positive impacts on local livelihoods and forest conditions, yet, as concessions, their future continuously hinges on their legitimacy. Competing interests and changing values in the same forest landscape mount constant pressure on the concessions to rethink the future terms of their tenure rights. This article explores the elements defining legitimacy (e.g., internally, through benefit distribution, and externally, through regulatory compliance) and how it underlies the future of Guatemala's forests.

The article from the Guatemalan highlands, by **Silvel Elías**, examines the discourses and risks associated with the creation of protected areas in communal forests, most of which are managed by indigenous communities. Elías analyses the effects of the conversion of communal forests to protected areas on traditional forms of forest governance in the highland forests of Guatemala. The article emphasises the importance of new rules of access to and exclusion from forest resources, the rise of conflicts between formal and informal uses of the forest and the protagonism of new social actors who are redefining ecological systems in the Guatemalan highlands.

The article by **Emmanuel Marfo** uses the experience of tenure reforms in Ghana to examine how communities stand to benefit from opportunities offered by carbon mitigation schemes, such as the Clean Development Mechanism and Reducing Emissions from Deforestation and Forest Degradation. Marfo argues that weak community tenure rights, and the resulting tenure insecurity, and unaccountable authority leading to elite capture of benefits, are the two principle constraints of benefit distribution in Ghana. Without attention to overcome these problems, benefits will not reach local people, and such efforts are unlikely, then, to improve the management of forests and trees.

The article on Cameroon by **Phil René Oyono, Martin Blaise Biyong and Serge Kombo Samba** examines the outcomes of community forestry initiatives in four research sites. The authors demonstrate that community forestry has not improved basic assets or incomes at the household level and has, rather, increased threats to natural resources, due to poor institutional arrangements and management strategies. The authors argue that the state and communities are in conflict over rights, and that secure tenure is an essential first step for effective reform.

Jephine Mogoi, Emily Obonyo, Paul Ongugo, Vincent Oeba and Esther Mwangi examine the progress and challenges in the formation of CFA under decentralisation policies in Kenya. Their research compares CFAs in 12 Kenyan forests over a 10 year period. Though the Kenyan Forest Service still controls key decisions and resources, the CFAs also have important management responsibilities and make autonomous decisions regarding management rules, leaders, and conflict resolution. The research studies their capacity and the limitations and challenges they face, in light of growing conflicts of interest with the Kenyan Forest Service, while important aspects regarding the distribution of powers and benefits have still not been defined.

The final article, by **Rosario León, Patricia Uberhuaga, Jean-Paul Benavides, Diego Pacheco and Krister Andersson**, analyses how efforts to reform forest governance—through both decentralisation and tenure reforms—have affected an indigenous territory, its inhabitants, and their efforts to govern their forest resources. Examining forest use among the Yuracaré people in the Bolivian lowlands, both before and after reform, the article specifically examines the effects of tenure reforms on institutional conditions for forest resource management.

In summary, the articles in this special issue address a wide range of countries, cases, and issues in forest tenure reform. Together, they provide a thorough overview of the main challenges—and of the opportunities—for the future.

Notes

1. In this research, community does not necessarily refer to a group of people who live in a single village but rather is defined as those who share a common interest or purpose in a particular forest and share common resources. Hence the resident-based community (or village) may overlap with the community of interest or be a subset of it, or vice versa. There may also be smaller 'communities' embedded in larger communities.
2. Though the research had intended to gather more globally comparative data on outcomes, funding was not sufficient to gather the kind of forest quality data that would have been useful, and baseline data for a rigorous study of livelihood outcomes was not available. Hence this analysis was primarily qualitative (Larson et al. 2010b; Dahal et al. 2010).
3. A cross-cutting analytical assessment of these outcomes can be found in Dahal et al. (2010) and Larson et al. (2010b).
4. For logistical reasons, the field study focused on two communities bordering the reserve. The dynamics there were used for comparison with information available on the RESEX.
5. Not to indigenous communities in the Guatemalan highlands, however.
6. For example, devolution and decentralisation policies are clearly supported by other driving forces, such as democratisation policies and discourse (Ribot 2002) particularly in post-colonial African states, or after the demise of dictatorships, civil wars or revolutionary regimes in numerous countries in Africa, Asia, and Latin America (Barry et al. 2010).
7. For example, the Ghana cases are quite distinct and would be difficult to compare, but community forestry in Cameroon could have been included in the co-management or timber market analysis. Nevertheless, the emphasis of the researchers were different, with the Cameroon case focusing less on the role of the state and more on the role of elites. Likewise, the Burkina Faso cases could have been included in the co-management analysis. In the market opportunity article, all the cases were selected from Latin America due to funding for coordination among the Latin America researchers that was not available in the other regions, and due to the author's familiarity with the region. At the same time, the two secondary organisations compared (from Nepal and Guatemala) were selected due to their prominence. The regulations article refers to almost all of the cases, though, again, the Ghana cases were quite different, and information on regulations from Burkina Faso was limited.
8. For more on forest rights earlier in the century, see Guha (2001).
9. The Scheduled Tribes and Other Traditional Forest Dwellers Act of 2006.
10. A few Asia-Pacific countries show similar figures. In China, 100 million ha are owned by communities and indigenous people; in Papua New Guinea, 26 million ha; in Australia, 21 million ha (RRI and ITTO 2009). The per capita breakdown is not available.
11. A case from a third region, included after this project ended, is used in the Pacheco article in this special issue.
12. For additional outcomes and findings of the reforms, see Larson 2010a; Larson et al. 2008, 2010a, b; www.cifor.cgiar.org/tenure-reform

13. Thanks to Krister Andersson for his contribution to the insights regarding unanswered questions and research methods.

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