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Seeing the Communities for the Carbon:

Governance Challenges of Reducing Emissions from Deforestation and Forest Degradation in Nepal

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Reducing emissions from deforestation and forest degradation in developing countries (REDD), an emerging international climate change mitigation mechanism, would compensate developing countries with threatened forests for their conservation and reforestation efforts. The implications of this new scheme for governments, forests, communities and their development are still unclear. The preparation for REDD that is taking place in many countries includes little concern for this mechanism's potential impacts on the rights and livelihoods of forest-dependent communities who have yet to be consulted. This paper analyzes both precedents and the current process of REDD readiness in Nepal, revealing discrepancies in forest governance that must be addressed before this carbon trading mechanism can successfully meet climate change mitigation, biodiversity conservation, or development goals. This paper finds that REDD readiness and policy formulation is being driven from the top down, with insufficient involvement and influence by local communities in planning and decision-making processes, and that a more adaptive, bottom-up approach is needed if REDD is to be economically beneficial, socially equitable, and environmentally sustainable in the long term.

Key Words: Climate change, forest governance, REDD, community development

Introduction

Over the past three decades, Nepal has undergone a process of decentralization in forest governance. Today, its 'community forestry' program is considered a global model for community-based natural resource management (Springate-Baginski & Blaikie, 2007; Agrawal & Ostrom, 2001). Decentralization has brought significant development benefits for local communities in the form of increased participation and autonomy in decisions about resource management and use; greater access to valuable natural resources for subsistence needs; development of local enterprises based on forest assets; and the creation of community funds for local development priorities (Acharya, 2002; Springate-Baginski & Blaikie, 2007). Following the success of decentralization efforts, a new international carbon-offsetting mechanism called reducing emissions from deforestation and forest degradation in developing countries (REDD), emerging through the United Nations Framework Convention on Climate Change talks, is being implemented in Nepal. REDD promises to help combat global warming and biodiversity loss, while providing significant additional financial benefits and development opportunities to the

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communities who manage and rely on forests.

Many developing countries, including Nepal, are embracing REDD as a potential solution and source of funding for the persistent and linked problems of climate change, deforestation, biodiversity loss, and rural poverty. However, the broader implications of this global mechanism for forest governance, local institutions, and the development and wellbeing of forest-dependent communities in specific national and local contexts have not been closely examined. In fact, some scholars have warned that policies like REDD could pose a threat to decentralized forest governance and diminish its contributions to local autonomy and community development (Lovera, 2009; Phelps, Webb, & Agrawal, 2010; Sikor, Stahl, Enters, Ribot, Singh, Sunderlin, & Wollenberg, 2010).

The case of Nepal illustrates considerable gaps and inconsistencies between international climate change negotiations, national policy formulation processes, and the perceptions, concerns, and development priorities of local communities. This paper draws on the experience of Nepal to illustrate some important points about forest governance in the context of climate change mitigation policies like REDD, and the broader implications for development, climate change, and conservation. First, REDD readiness activities are being driven from the top down, with inadequate input from local and indigenous communities, and insufficient consideration for their rights and development priorities. Second, this top-down approach is indicative of deeper issues concerning the governance of forests in Nepal. Third, key elements of effective forest governance must be taken into account when devising global climate change policy mechanisms. If policies and programs for REDD do not acknowledge these issues, they will ultimately fail to meet its climate change mitigation, forest conservation and development goals, as well as the needs and expectations of all concerned stakeholders.

This paper presents preliminary findings and reflections from the author's ongoing action research with communities involved in forest certification and REDD piloting programs, and from continued engagement with Nepal's REDD readiness process at the national level. It does not aim to criticize specific policy initiatives or programs, but rather to highlight the need for reversing the existing paradigm so that local priorities, outcomes, and actors become integral to national policymaking and planning processes. Section two, below, outlines the role of forests in climate change policy internationally. Section three provides a summary of the various stakeholders and challenges in the REDD implementation process. Section four presents a brief background on Nepal's forestry initiatives, while also focusing on precedents for REDD and examining the current readiness process in Nepal. The conclusion (section five) summarizes the findings and key lessons for future activities and research related to REDD in Nepal and other countries where it is being implemented.

Evolving Role of Forests in Climate Change Policy

Forests play a key role in climate change as both sinks and sources of atmospheric carbon dioxide. Recent studies estimate that the destruction of forests contributes up to 20 percent of all carbon dioxide emissions annually—more than the entire global transportation sector—and that standing forests sequester a similar amount of carbon dioxide emissions (Stern, Peters, Bakhshi, Bowen, Cameron, Catovsky, & Crane, 2006; Eliasch, 2008). Thus, the net impact of forests on atmospheric carbon dioxide levels seems insignificant. However, if incentives were provided to curb the rampant deforestation and forest degradation afflicting many tropical countries, forests could contribute substantially to mitigating climate change.

At first glance, REDD seems like an ecologically worthwhile and economically sound

undertaking. Why not simply pay developing countries to preserve their forests and have developed countries—the primary emitters of carbon dioxide—pick up the bill? But what incentive do developed countries have to make payments and how, specifically, would this benefit developing countries? Under the Kyoto Protocol, 'Annex-1', countries (i.e., developed countries) are obligated to reduce their greenhouse gas emissions through either domestic emissions reductions or 'offsets' (foreign investments in technologies and activities that help reduce emissions in other countries). The rationale for offsets is that they help minimize the cost of emissions reductions, while spurring investments in clean technologies and other emissioncutting activities in developing countries, thereby promoting ecologically-sound development. The main policy instrument for offsets under the Kyoto Protocol is the Clean Development Mechanism, which includes offsets for both energy substitution projects and afforestation and reforestation (A/R) activities. Most A/R projects have been implemented in temperate regions, and therefore do not address the bulk of emissions from land use change, which stem from high deforestation rates in tropical countries (Eliasch, 2008). Furthermore, the high transaction and administrative costs of the Clean Development Mechanism are not conducive to incorporating community-based forest-management regimes (Sharma, Karky, Dahal, Chapagain, & Basnet, 2004).

During the past several years, the ongoing United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP) meetings have taken an increasing interest in REDD. It was first proposed as a separate offsetting mechanism at the 11th COP meeting (COP-11) in 2005, the same year that the Kyoto Protocol came into effect. At COP-13 in 2007, REDD was written into the Bali Action Plan, a "roadmap" for a comprehensive new global agreement on climate change. At COP-15, held in Copenhagen in December 2009, it was one of the proposed policy mechanisms that galvanized the most political support. Since COP-15, negotiations on REDD have continued, but consensus has begun to unravel in the face of uncertainty over commitments by developed countries and ongoing disagreement about the specific form the mechanism should take.

Possessing strong participatory forest management initiatives and institutions, a supportive legal and policy framework, and a demonstrated capacity by communities to sustainably manage and monitor forests, some consider Nepal to have an institutional advantage for REDD. However—given the evolving nature of REDD at the global level, its current top-down governance structure, the techno-bureaucratic nature of related projects and policy processes in Nepal, and the uncertain outcomes for resource tenure and other crucial elements of effective participatory forest governance—there is considerable debate about the compatibility of REDD with broad-based, participatory forest governance (Phelps et al., 2010).

Stakeholders and challenges in REDD implementation

As suggested above, REDD promises an affordable means of reducing carbon dioxide emissions (Stern et al., 2006), as well as the possibility of generating substantial funds for local income and community development initiatives (Banskota & Karky, 2007). There are many actors with a stake in the outcome of REDD in Nepal. However, there are also myriad obstacles to the effective functioning of such a scheme. This section discusses the various stakeholders and challenges involved in implementing REDD, both globally and in Nepal.

Stakeholders

Internationally, there are three sets of stakeholders. First, are the *countries* themselves—including parties to the Kyoto Protocol and others—which have adopted distinct positions on

REDD based on what they stand to gain or lose from it. The ongoing UNFCCC negotiations reveal that, while most countries are in favor of REDD in principal, there are some critical unresolved issues. Second, are the *international organizations and financial institutions* investing in REDD. The World Bank has spent considerable effort and funds on REDD through its Forest Carbon Partnership Facility. This initiative, like the UN-REDD Programme, supports countries' efforts to enhance their readiness for REDD.

The third set of stakeholders are the *global NGOs*, *advocacy organizations*, *and networks* that have adopted various positions on REDD and are working to promote transparency, equity, and the fundamental rights of local communities and indigenous peoples to their lands and resources. These organizations and networks have pushed for specific language in the UNFCCC negotiations on "prior and informed consent" of local and indigenous communities in order to ensure that local actors are consulted before REDD policies and projects are put in place. Moreover, they have advocated for language such as "the sustainable management of forests" in order to ensure that ecologically-destructive commercial timber harvesting practices under the moniker of "Sustainable Forest Management" (SFM) are not permitted under REDD. *Private investors and businesses* are also watching the negotiations carefully to see how they might benefit.

At the national and sub-national (e.g., district) levels are government agencies and officials. They are interested in REDD primarily as a potential revenue-generating scheme to support investments in forestry and other sectors, and/or to promote forest conservation and financial benefits among local communities. Relations between different government agencies are often marked by a lack of coordination and competition over resources. For example, the main UNFCCC focal point for climate change policy development in Nepal is the Ministry of Environment, which oversees carbon offsetting initiatives under the Clean Development Mechanism, while the national body that has been charged with REDD policy formulation and implementation is the Ministry of Forests and Soil Conservation. To date, collaboration between these two national agencies has been limited. There are also national federations, advocacy organizations, and NGOs exhibiting different shades of support or opposition for REDD, such as the Federation of Community Forest User Groups Nepal (FECOFUN) and the Nepal Federation of Indigenous Nations (NEFIN). Some of these groups are engaged in information campaigns and networking activities through national and international advocacy coalitions in order to garner additional support for their interests. Some, like FECOFUN, are also involved in REDD pilot projects.

At the local level are *forest-dependent communities, indigenous groups, and private landholders* who may view carbon trading initiatives like REDD as either a potential source of income and opportunity, or as a possible source of conflict or consolidation of government authority over their forest lands and resources. Different *community-based organizations and local associations* also have distinct interests and positions with respect to carbon trading. In Nepal, federations and associations that represent the interests of forest users, women, *Dalits* (untouchables), indigenous peoples, and forestry professionals are working to raise awareness among their local constituents about climate change, carbon trading, and REDD. However, this has not yet translated into sustained local dialogues, except among a few communities and actors directly involved in REDD pilot projects (personal observation from involvement in REDD outreach and pilot project activities).

Challenges

The case of Nepal illustrates considerable gaps among international climate policy

negotiations, national policy formulation processes, and local perceptions, concerns and development priorities. These gaps are reinforced by the multiple social, technical, economic, ecological, political and institutional, legal, and ethical challenges to the implementation of a REDD mechanism. *Social* challenges include engaging forest-dependent communities in awareness-raising and decision-making processes and addressing existing inequities among community members and other local stakeholders. *Technical* challenges involve the design of appropriate methods for measuring, reporting, and verifying forestry-related emissions reductions, and ensuring that these reductions are long-term (i.e., 'permanence'). *Economic* challenges relate to the financial viability and compatibility of REDD relative to the transaction costs and other uses or markets for forest products. One key economic challenge is proving 'additionality': ensuring that forest conservation outcomes are the direct result of economic incentives in the form of carbon payments and not due to other factors. *Ecological* challenges primarily entail assessing and mitigating uncertain risks to biodiversity posed by a strong focus on carbon sequestration and storage.

Political and institutional challenges involve coordination and conflict among agencies and institutions at various levels (such as the design of a national carbon accounting system or an effective mechanism for the tracking and reimbursement of carbon credits from the national level to forest managers), as well as addressing pervasive corruption in the forestry sector, which often corresponds with high rates of deforestation (Ebeling & Yasue, 2008). Legal challenges include a lack of effective laws and policies to facilitate carbon trading and the tenuous tenure status of local users. Ethical challenges operate at a global level and entail disputes about the fairness of REDD vis-à-vis alternative mechanisms and deeper emissions reductions commitments by developed countries (Bumpus & Liverman, 2008). Additional ethical challenges pertain to the implications of REDD for the rights and livelihoods of local and indigenous communities and marginalized groups (Lovera, 2009). The current top-down nature of REDD policy development and readiness activities intensifies these challenges (e.g., Sikor et al., 2010).

Nepal's Forest Conservation Initiatives and the REDD Readiness Process

Nepal is well-positioned to take advantage of REDD, as it has prioritized the development of sustainable forestry practices for decades. Nepal's community forestry program is considered a global model of community-based natural resource management and a driver of local socioeconomic development (Acharya, 2002). Since the late 1970s, donor organizations and the national government have promoted local autonomy over forest resources. This happened at first through pilot projects and extension programs, and later through specific policy reforms that acknowledged the rights of communities to form community forest user groups (CFUGs) and to manage forests collectively for their own benefit (Acharya, 2002; Britt, 2002). However, this devolution would not have been possible without an ongoing struggle by forest-dependent communities and their advocates—most notably FECOFUN, which has played a key role in upholding the resource rights of CFUGs (Britt, 2002).

As a result of these efforts, the number of CFUGs in Nepal has grown from a handful of isolated donor-funded projects in the late 1970s to over 15,000 groups today (personal communication with Gyansham Pandey, former FECOFUN Chairperson, October 2009). CFUGs have also become more politically and financially independent, and less reliant on donor and government support. Thanks to community forestry, Nepal's forests have recovered in many areas, providing important products and environmental services to support the livelihoods of communities throughout the country (Acharya, 2002; Springate-Baginski & Blaikie, 2007).

Nonetheless, some forests remain at risk, especially in the sub-tropical *Terai* plains region where they are threatened by conversion to agricultural land and the logging of valuable tropical hardwood species (Chakraborty, 2001).

Despite the proliferation of CFUGs, forest policies that support their rights and autonomy, and strong evidence of forest recovery, members of forest-dependent communities in Nepal still face significant challenges to their resource rights (Pokharel & Byrne, 2009; Bushley & Khatri, 2010). These challenges are indicative of a broader failure in forest governance at multiple levels (e.g., Ojha, 2008), and they present substantial hurdles to the effective implementation and governance of REDD. To illustrate these challenges, this section explores two precedents for REDD in Nepal in the form of existing incentive-based initiatives for forest conservation, and then examines the current process of national policy development and piloting for REDD.

Learning from Precedents

There are a few existing forest conservation initiatives in Nepal that can reveal important lessons for development and implementation of initiatives like REDD. These include market-based conservation initiatives such as sustainable forest management certification, as well as payment for environmental services (PES) schemes that involve revenue-sharing mechanisms (e.g., the disbursement of hydropower revenues in the Kulekhani watershed). These initiatives share similarities with REDD in that they involve payments from external (national and international) buyers to local providers for a specific environmental service (e.g., sustainable forest management and water supply for hydropower generation). Like REDD, forest certification and PES schemes often require the measurement and/or verification of local forest conditions.

Forest certification has been active in Nepal since 2005 under the Forest Stewardship Council guidelines, primarily for the sustainable production and marketing of non-timber forest products. Twenty-one groups have been certified in two districts. However, certification has not brought significant economic returns to communities and it is still unclear whether these communities can pay the certifying costs in the long run, or whether certification can be scaled-up to the national level, especially in the absence of an effective national certifying body (Acharya, 2007; Kandel, 2007). In addition, despite ongoing project activities over the past several years, there are still many people within forest-dependent communities with little or no awareness of the certification scheme or its associated benefits (personal communication with community groups, May 2010, November 2010).

PES mechanisms are another common approach to forest conservation, often with the explicit aim to ensure the quantity and quality of water supplies. One prominent example of a PES scheme in Nepal involves government royalties from a hydropower facility at the Kulekhani reservoir in Makawanpur District. National regulations stipulate that 50% of hydropower revenues must be shared with the development region (38%) and district (12%) in which the facility operates (personal communication with Shyam Upadhyaya, October 2009). Since 2005, under an arrangement negotiated through the Rewarding Upland Poor for Environmental Services project of the World Agroforestry Center, the District Development Committee has allocated funds to communities in the upper part of the watershed in order to encourage them to conserve forests and prevent soil erosion, as well as to ensure the efficient and continued operation of the reservoir and dam (Khatri, 2009). However, even more funds have been disbursed for those communities directly surrounding and below the reservoir as compensation for the damage and displacement caused by its construction and operation (Khatri, 2009).

Moreover, there is no mechanism linking payments with the forest management practices of upstream CFUGs; instead, funds are disbursed through Village Development Committees, which spend these funds (upon arrival of a district-level body) on various community development projects, some of which have negative impacts on the environment (Khatri, 2009).

These two precedents reveal persistent governance issues and failures that could impede the effective implementation of a REDD scheme in Nepal. For instance, after more than five years of operation, both awareness of and benefits from the certification initiative remain low, while associated costs are high. Therefore, communities do not have much economic incentive to participate (Acharya, 2007; Kandel, 2007). Rather, the involvement of communities is primarily driven by donor priorities and project financing, which calls into question the financial and institutional sustainability of certification (personal observation from discussions with communities, May 2010). The benefits that do accrue to local communities are unevenly distributed, privileging those with more information about the certification process and those who control access to the processing and sale of certified forest products (Acharya, 2007). The case of the Kulekhani hydropower revenue-sharing mechanism illustrates potential shortcomings in PES enforcement and distribution mechanisms when handled by the government. There is no performance-based monitoring or financing mechanism, and thus no direct incentive for CFUGs to ensure protection of the watershed (Khatri, 2009). However, estimating the value of the environmental service provided by individual or collective forest managers is crucial to ensuring effective conservation measures by communities, as well as equitable compensation by the government. These examples illustrate how politics, along with institutional incentives, mandates, and capacities, can play a decisive role in determining the effectiveness and fairness of such mechanisms (Khatri, 2009).

Governance Issues in Nepal's REDD Readiness Process

Governance functions at multiple levels. Decisions and agreements made in international forums have implications for the formulation of national-level decisions, policies, and programs, which in turn shape processes and outcomes at sub-national (regional and local) levels. The challenge is to counter this paradigm through a bottom-up, adaptive governance approach, so that local-level knowledge and experiences can inform national dialogues, policies, and practices and subsequently influence international policy debates and agreements (e.g., Berkes, 2002; Sikor et al., 2010).

In 2008, Nepal was one of the first countries selected to receive support from the World Bank's Forest Carbon Partnership Facility (FCPF). Nepal also joined the UN-REDD Programme as an observer country in October 2009, making it one of only a handful of countries in Asia belonging to both of these global forest-carbon financing initiatives. In 2009, the government created the REDD Forestry and Climate Change Cell (REDD Cell) to coordinate readiness activities. It also formed a national REDD Working Group, with representation from government, donor agencies, national federations and civil society organizations. An Apex Body for policy coordination and development was also formed, comprised of top-level officials from nine government ministries and the National Planning Commission. In July 2010, with support from the FCPF and other donors, Nepal submitted its Readiness Preparation Proposal (R-PP), detailing the national REDD readiness process. In addition to these institutional and policy developments, several NGOs and civil society groups have become closely involved in piloting and outreach activities for REDD in order to demonstrate its social and technical viability at the national and sub-national levels. These activities include training on carbon measurement and discussions on benefit-sharing in community forestry.

The REDD readiness process in Nepal has revealed several closely related governance risks and deficiencies, including limited local awareness about this emerging forest-carbon offsetting mechanism, the lack of an authentic participatory consultation process, the limited scope of involvement by communities and other actors in policy formulation and piloting activities, and inadequate consideration for key elements of effective forest governance, especially ongoing threats to resource tenure and access rights. These deficiencies are the result of a top-down donor driven approach to implementation, which is characterized by entrenched techno-bureaucratic practices and the dominance of the national policymaking process by a small circle of influential actors representing government, donor organizations, consultants, and a limited number of influential civil society actors.

Awareness about REDD remains low at the sub-national level, and local and indigenous communities do not have sufficient information or autonomy to make informed decisions about their participation. This is particularly true in Nepal, where many local communities have scarcely heard of 'climate change', let alone carbon offsets and REDD (Bushley & Khatri, 2010). This lack of awareness is indicative of the fact that REDD policy and project development is being driven from the top-down, with strong support and influence from the World Bank's FCPF, UN-REDD and other international actors, and with minimal input from communities that rely directly on forests for their livelihoods (Bushley & Khatri, 2010). During a discussion about REDD, a community member at one of the pilot project sites shared the following sentiments concerning local awareness:

Information should flow to the grassroots level about what REDD is, about carbon, everyone should know. Everyone should be aware that we are all getting positive support from the forest, and by conserving it we will be able to get benefits in our daily lives. (personal communication, November 2010)

While some organizations in Nepal are working to raise local awareness about the impacts of climate change and associated adaptation and mitigation strategies (including REDD), there is a clear disconnect between these efforts and the process of policy formulation. To date, policy development has been largely shaped by external influences and by restricted, government-led timelines and priorities. Although, the government established the REDD Cell in April 2009 to fast-track policy development and submitted its national readiness plan (i.e., R-PP) to the FCPF in April 2010, communities were not engaged in discussions about REDD until January 2010, leaving only three months to raise awareness and solicit views from local stakeholders (author's observation from participation in outreach and awareness raising process, 2010). As a result, there was little time for incorporating the experience and perspectives of local communities into the policy development process. This was clearly not a priority. In fact, when asked how they were planning to incorporate local perspectives and concerns into policy development, one of the REDD Cell staff members admitted that they did not know (personal communication, December 2009). Furthermore, due to strict adherence to the FCPF's policy template for the R-PP, valuable information that did not fit within its limited parameters was excluded (personal observation as a participant in the outreach activities and as an author of the consultation component of the R-PP, January-March 2010). Thus, the opportunity to capture valuable lessons and insights about the process that could inform future readiness activities was lost.

To date, the process of REDD policy development has involved a limited number of

stakeholders representing government, donor agencies and consultants through a fragmented approach whereby different components of the planning process have been contracted out to various consultancies. Although a few civil society leaders have provided critical input into this process, they have mainly represented the interests of their own constituents, while the voices of other stakeholders have been largely absent in policy dialogues (Bushley & Khatri, 2010). Furthermore, some civil society leaders and organizations have been playing paradoxical roles, serving as technical experts for the government and donors on the one hand, while also allegedly advocating for the rights of local communities on the other (Bushley & Khatri, 2010). This dual role arguably challenges both their organizational mandate, and their allegiance and capacity to serve as spokespeople for their constituents. In addition, there is no concerted effort at the subnational level to engage a range of grassroots-level stakeholders in awareness-raising and consultation activities. According to one community member in the REDD piloting area:

We should make a decision with all parties, including FECOFUN and REDD implementing institutions, CFUGs and others, but up to now only some representatives are being included in the discussions and decisions. They come back to the community and share only some things, so that we can get a negative understanding of REDD. (personal communication, November 2010)

Techno-bureaucratic influences have also prevailed in the planning and implementation of REDD readiness activities. For instance, to facilitate carbon accounting, the government has embarked on a comprehensive forest inventory project with bilateral assistance from Finland. While such a nationwide assessment is an important prerequisite for the setting of biophysical baselines for deforestation rates and current forest carbon stocks-and thus critical for participation in REDD—this project has been criticized for its highly technical focus, its corresponding failure to involve civil society groups in the planning process, and its lack of provisions for capacity building among local communities and stakeholders (Federation of Community Forest Users Nepal (FECOFUN), Community-based Forestry Supports' Network Nepal (COFSUN), Nepal Federation of Indigenous Nationalities (NEFIN), The Himalayan Grassroots Women's Natural Resource Management Association (HIMAWANTI), Nepal Foresters' Association (NFA), Nepal Rangers' Association (NRA), Kathmandu Forestry College (KAFCOL), Resource Identification and Management Society Nepal (RIMS Nepal), & Green Governance Nepal (GGN), 2010). In addition, current REDD piloting activities have focused primarily on establishing carbon accounting practices and physical and socioeconomic baselines, without involving communities in discussions about important issues, such as the requirements, opportunities, alternatives and risks of involvement in REDD (Bushley & Khatri, 2010). Even within the carbon accounting activities, there is limited involvement and knowledge sharing at the local level. According to one community member in the piloting area, "Right now, we have only one person who is aware of the measurements, but we think more people should be involved and transform the knowledge of measurements so that they can support measurement capacity in the future" (personal communication, November 2010).

Designing an effective governance regime for REDD also requires an appreciation for key elements of effective forest governance at multiple levels, such as clear and objective laws, policies, and rules; effective and sustainable implementing institutions; transparent and equitable decision-making, information-distribution and benefit-sharing processes; systems and incentives for promoting and monitoring accountability among the various actors; and just, efficient conflict

resolution, grievance, and sanctioning mechanisms. Chief among these elements for ensuring community benefits are secure tenure and access rights for forest management and use. Under Nepal's current laws and policies, communities have clear rights to manage and use trees and forest products; however, the government retains ownership of the land itself. This is problematic within the context of carbon trading initiatives like REDD since carbon is contained not only in trees, but also in the soil, roots and organic debris, for which tenure remains ambiguous (Ojha, Baral, Dahal, Subedi, & Branney, 2008; Pokharel & Byrne, 2009). Communities have also identified specific elements that they feel are critical for effective forest governance at the local level, which complement the list above: equitable participation and transparency in decision-making, including participatory planning mechanisms; sustainable forest conservation; equitable benefit-sharing; dissemination of information to all users; and effective monitoring and evaluation of CFUG activities, including public hearings of annual decisions, harvesting and income (personal communication, November 2010).

Government directives and administrators repeatedly challenge even those rights clearly guaranteed by law (Ojha, 2008). For instance, past directives have restricted the harvesting of live trees, and local forestry officials have exercised considerable discretion in terms of interpreting the laws outlining the management and use rights of local communities (Ojha, 2008). In addition, the Department of Forests is currently threatening to revise the Forest Act of 1993—a legal cornerstone of decentralized forest governance—by introducing a number of restrictions on the autonomy and benefits of forest-dependent communities, including a 50% tax on the sale of all products sold by CFUGs (personal communication with Bhola Bhattarai, former Secretary of FECOFUN, October 2010). One community member shared his response to this:

We are collecting some money from community forestry, thanks to our labor, but by amending the forest rules the government is trying to claim some [additional] part of our income, which is really unfair... We are ready to pay tax to the government if we are assured of resources provided by the government to the community, but they haven't provided any. (personal communication, November 2010)

In addition to such challenges from the government, and despite local rules to the contrary, internal inequities in access to benefits and decision-making authority persist within some CFUGs. This is perpetuated by local power imbalances and corruption involving community elites and third parties. As a result, some users remain marginalized in their ability to benefit from community forestry in general, and from carbon trading schemes in particular (Pokharel & Byrne, 2009). In order to protect against this, there is a need to incorporate safeguards into the REDD implementation process that will ensure equitable benefits for poor and marginalized users (Ojha et al., 2008).

Conclusion

The above analysis reveals significant shortcomings and corresponding lessons for the REDD readiness process in Nepal. Such realities and limitations are not unique to REDD, but are indicative of deeper issues in forest governance nationwide, such as the lack of deliberative planning and policymaking processes, perverse institutional incentives and widespread corruption at multiple levels, and the tenuous nature of local tenure over forest land and resources. Despite its significant degree of decentralization, forest governance in Nepal is not sufficiently participatory, transparent or polycentric (e.g., Ostrom, 2005) to ensure that the voices

of forest-dependent communities are heard and incorporated into policy development and planning processes. In fact, the lack of truly deliberate consultations on forestry policies and programs is a chronic constraint on Nepal's forestry sector.

Studying existing precedents, such as forest certification and PES schemes, can reveal significant hurdles for new market-based forest conservation mechanisms like REDD in terms of their economic incentives, financial viability, political limitations, and institutional sustainability. In addition, examining the ongoing readiness process can produce insights into REDD's potentially negative implications for forest governance and how they can be avoided. This analysis reveals that local communities in Nepal have insufficient knowledge of, involvement in, and influence over REDD policymaking and planning processes because of the top-down, techno-bureaucratic, and relatively closed nature of these processes. In order to address these deficiencies, planners and policy makers should pay attention to the diverse social, technical, economic, political, institutional, legal, and ethical challenges associated with REDD, as well as uphold critical elements of effective forest governance, especially secure resource tenure and access rights. Effective involvement of local and indigenous communities in all stages of planning and policymaking for REDD—including engagement in deliberative dialogues on its requirements, risks, opportunities, and alternatives—can help ensure that these challenges are met and that these critical governance elements are supported, thereby reducing the overall costs and negative impacts from its implementation.

There is a need for a more flexible bottom-up approach to REDD policy development and implementation in order to ensure that the interests, needs, and development priorities of forest-dependent communities are addressed. Future research and action on REDD, climate change mitigation, and forest governance should not only seek to illuminate and moderate the negative influences of international and national policy processes on local outcomes, but also to build greater understanding, capacity, and opportunities for local priorities and experiences to shape national and global dialogues, planning objectives, and policy outcomes toward a more socially, economically and ecologically sustainable, inclusive, and just future.

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