

Chapter 5

Community Forest Management
and REDD+: Opportunities and
challenges

Chapter 5

Community Forest Management and REDD+: Opportunities and challenges

Enrique Ibarra Gené, Henry Scheyvens and Federico López-Casero

1. Introduction

Community forest management (CFM) plays a key role in the green economy by contributing to the well-being of society and the livelihoods of millions of people through the provision of raw materials, food and medicinal plants, and securing the supply of environmental services, such as watershed and biodiversity protection, and carbon fixation and storage, all of which are crucial for the attainment of climate change mitigation goals (UNEP 2011).

Forests have traditionally been managed for a variety of purposes including timber production, water and soil protection, and biodiversity conservation. In the case of communities, additional uses must be accounted for such as food and medicinal production, and cultural, aesthetic and spiritual uses. With deforestation thought to be responsible for approximately 17% of anthropogenic greenhouse gas (GHG) emissions, climate change mitigation has been added to this list and has given forests increased global relevance. Parties to the United Nations Framework Convention on Climate Change (UNFCCC) are in the process of agreeing on a global mechanism known as REDD+ that would provide incentives to developing countries to manage forests for climate change mitigation. REDD+ stands for “reducing deforestation and forest degradation (REDD), and maintaining and enhancing

Key Messages

- Community forest management (CFM) programmes can contribute to REDD+ and the green economy, but they need to fulfil framework conditions such as appropriate qualification conditions for communities, flexibility to include local institutions in management and decision-making processes and clear and secure user rights. CFM programmes can promote the efficient use of forest resources to maintain and restore natural capital, and target not only climate change mitigation, but also adaptation and poverty alleviation through the enhancement of social equity.
- CFM can position itself as a source of knowledge and ideas for the development of REDD+ as it can show a wealth of experience on issues dealing with models of legislation and regulations supportive of local actors, benefit sharing arrangements and dispute management mechanisms.
- CFM programmes need to be strengthened; investment in capacity building of government agencies to act as facilitators rather than monitors of CFM is required, and contradictory norms must be removed to strengthen the legal basis for CFM.
- Institutional reform of CFM programmes may be needed to avoid elite capture.
- Processes that respect Free Prior and Informed Consent (FPIC) must be followed to uphold environmental and social safeguards (i.e., ensure that communities have a thorough understanding of REDD+, of their roles and responsibilities as well as the potential benefits, costs and risks that REDD+ may entail). REDD+ can be strengthened through processes that respect FPIC relationships between communities and other actors involved in REDD+.

forest carbon stocks (+).” The parties to the UNFCCC are involved in negotiations on a range of environmental and social safeguards that should accompany the implementation of REDD+ (UNFCCC 2010, Appendix 1). In this context, CFM can play a relevant role in the design and implementation of REDD+.

This chapter examines the recent evolution and characteristics of state-sponsored CFM programmes in six countries of the Asia-Pacific region: India, Nepal, Cambodia, Viet Nam, the Philippines and Indonesia. These countries were selected on two grounds: they represent a wide geographical span, and they illustrate different government-sponsored CFM programmes in diverse stages of development that range from the relatively progressive, for example, in terms of access to forest resources and ownership rights (Nepal, Cambodia and the Philippines), and programmes trying to address issues of indigenous and traditional forest dwellers (Indonesia and India with its Forest Rights Act), to programmes where legislation is in place but CFM is being developed on a pilot basis before a national CFM programme is put in place, such as in Viet Nam.

The main questions this chapter takes up relate to whether and how CFM can make a significant contribution to REDD+. This is done by looking into recent reforms of the legal frameworks as well as the characteristics of the different CFM programmes on issues crucial for forest governance such as qualification requirements for communities, space given to local forms of decision-making and the extent and security of property rights (Ostrom 1999). These criteria are deemed relevant for the following reasons: rigid qualification requirements may exclude legitimate claimants to forest land and resources; rigid models will not be able to accommodate local variants of forest management that communities have developed over many generations and will thus impose “unnatural” institutions on them; and forest rights that are overly limited and insecure will not provide enough incentives for communities to invest their efforts in forest management over the long-term. The chapter draws on this analysis to assess the potential contribution of state-sponsored CFM models to REDD+. Throughout this chapter it is assumed that CFM’s contribution to REDD+ also has a positive impact on the green economy insofar as it enhances forest resources, their associated environmental services, and contributes to improve human well-being.

The chapter is divided into five sections. The second section looks briefly at the context in which recent legal reforms to CFM programmes have been undertaken. In the third section, through the selection of examples found in the literature, the strengths and weaknesses of these CFM programmes are observed. This is done by examining the contents of the laws and regulations (*de jure* approach) and how these are actually applied (*de facto*). However, an exhaustive analysis of the spirit of the norms and regulations and how they are really applied is beyond the scope of this chapter.

The fourth section takes up the questions of whether and how REDD+ could be implemented through state-sponsored CFM programmes. This requires an understanding of the origins, strengths and weaknesses of these models, as well as an understanding of REDD+ activities and its requirements. Based on this analysis, the chapter sets out policy recommendations in the last section for implementing REDD+ through community forestry.

2. Recent evolution of CFM in Asia-Pacific: CFM as a legal innovation

CFM can be traced back many centuries in various parts of the world (Sam and Shepherd 2011). The colonies established in Asia and Southeast Asia and their state-

dominated systems of natural resource exploitation systematically deprived indigenous communities from accessing resources that underpinned their livelihoods, eroding these customary forest management systems and sometimes even vanquishing them. As different countries gained their independence and laid claim to colonial forest lands through nationalization processes,¹ community forest management was further undermined as forest lands were given to state enterprises or in concession to private investors—often through deep-rooted corruption networks (Poffenberger 2006; Noordwijk et al. 2007; Walpole and Annawi 2011).

The technocratic approach to forest management through the concession system in Southeast Asia was already deemed unsustainable in the 1970s by many academicians and practitioners, who argued that local communities needed to be involved in the management of forests in order to explore alternatives that would reduce social unrest and make forest management more environmentally friendly (Fisher et al. 2007). Governments' attitudes towards communities as forest stewards, though still not without contradictions, began to change from the 1970s. The World Forestry Congress held in Jakarta in 1978—driven by forestry professionals concerned with mounting environmental and social concerns—brought forward a number of ideas that strongly supported the involvement of local communities in forest management, mostly for the restoration of degraded areas (Sam and Shepherd 2011). The Congress marked a milestone in the way community forestry was observed in Southeast Asia; in the years to come, it would experience increased support. Thus, governments began to design community forestry models that gave some forest rights to communities, though often in degraded, logged-over forests, with the aim of growing industrial timber. Over the following decades, these models evolved through trial and error and the focus shifted more towards land rehabilitation and community wellbeing, resulting in the situation we have in the region today in which millions of hectares of forest land are now managed by communities for multiple purposes (Poffenberger 2006).²

Contrary to the early scholarly assumption that community-managed natural resources would lead to their depletion due to resource users' mishandling of resources for their own self-interests (Hardin 1968; Hardin 1982), research in the last two decades has emphasized communities' capabilities in managing forests (common pool resources), provided the policy framework is compatible with local conditions, enables communities to devise their own governance arrangements, and communities perceive the benefits of managing forest resources as higher than the expected costs (Ostrom 1990; Dietz et al. 2003; Chhatre and Agrawal 2008; Ostrom 2009).

Table 5.1 presents an overview of statistical data for the countries discussed in this chapter. It suggests that the Philippines has come a long way in its efforts to promote CFM, allocating more than 35% of its total forest land area. Nonetheless, the increased support of CFM, as well as the recognition of indigenous rights and devolution of ancestral lands, coincides with the period in which the country has become a net importer of timber and native forests are no longer commercially viable. A similar process can be observed in Cambodia (Heng and Sokhun 2005), where forests underwent heavy exploitation before being earmarked for community forest management. Indonesia continues to have a large expanse of forests, of which more than 33% are allocated to concessions. Unfortunately the process experienced by the Philippines and Cambodia seems to repeat itself in Indonesia, as the first areas that the government allocated for community forest management—under the programme of community forest, HKm—were logged over forests that were once given to concessions.

Table 5.1 Forests, population and CFM

Forest statistics ⁱ	Cambodia	Indonesia	Philippines	Viet Nam	India ⁱⁱⁱ	Nepal ^v
Total land area (ha)	18,100,000	181,100,000	30,000,000	33,000,000	328,730,000	14,300,000
Total forest land	10,500,000	135,900,000	15,880,000	19,000,000	77,470,000	5,500,000
Total forested area	9,300,000	104,700,000	5,490,000	11,000,000	67,830,000	3,636,000
Area under CFM, % (relative to total forest land)	720,000 7%	590,000 0.43%	5,900,000 37%	2,350,000 12%	22,000,000 ^{iv} 28%	1,653,000 ⁱ 30%
Area under concessions	4,200,000	49,000,000	-	-	-	-
Average annual deforestation rate (1990-2005) ⁱⁱ	1.4%	1.8%	2.6%	-2.2%	-0.4%	1.9%
People statisticsⁱⁱ						
Total population	14,000,000	226,000,000	88,000,000	85,000,000	1,125,000,000	28,000,000
Rural population	11,060,000	113,000,000	31,680,000	62,050,000	798,750,000	23,240,000

Notes: ¹ See: http://www.dof.gov.np/index.php?option=com_content&view=article&id=95&Itemid=121

Sources: ⁱ Asia Forest Network; ⁱⁱ World Bank Little Green Data Book 2009; ⁱⁱⁱ Saigal et al. (2008); ^{iv} Pai and Datta (2006); ^v Acharya (2002)

CFM is not a true innovation since in many parts of the world it has been practiced for hundreds—if not thousands—of years (Sam and Shepherd 2011). Innovation here refers rather to the re-thinking by states of laws and regulations to recognize the rights of indigenous communities to manage forests, and the importance of their role in forest management. This section briefly describes the existing state-sponsored models of CFM found in the countries listed in Table 5.2 in terms of their legal basis and the national programme that implements CFM in each country.

Table 5.2 Legal basis of selected CFM programmes

Country	Name of CFM programme	Legal basis	Responsible government agencies
India	Joint Forest Management (JFM)	• National Forest Policy (1988)	State Forest Departments
	Forest Rights Act (FRA)	• Forest Rights Act (2006) ¹	
Nepal	Community Forest User Groups (CFUGs)	• Forest Act (1993) • Forest Rules (1995)	District Forest Office
Philippines ²	Community Based Forest Management (CBFM)	• Constitution (1987) • Executive Order 192 (1987) • EO 263 (1995) • Indigenous Peoples Rights Act (1997)	• Department of Environment and Natural Resources (DENR) • Local Government Units (LGUs)
Cambodia	Community Forest Management (CFM)	• Forestry Law (2002) • Sub-decree on CFM (2003)	Forestry Administration
Viet Nam	Community Forest Management (CFM, pilot phase)	• Forestry Protection and Rehabilitation Law (1991) • Land Law (2003)	• District Government • Commune
Indonesia	Community Forest (Hutan Kemasyarakatan, HKm)	• Forest Law (1999) • Ministerial Decree: SK 677/1998 ³ • Government Regulation PP 6/1999 ⁴	• District Government (Kabupaten) • Ministry of Forestry (MoF)
	Village Forest (Hutan Desa, HD)	• Forest Law (1999) • Regulation MoF P.49/Menhut-II/2008	• Village Government (Desa) • District Government • Provincial Government • Ministry of Forestry (MoF)

Notes: ¹ Full name: The Scheduled Tribes and Other Traditional Forest Dwellers Act

² See: <http://caraga.denr.gov.ph/CBFM%20Program.htm>

³ Right to control these community forests.

⁴ Timber harvesting rights in production forests.

Source: Authors

India

In India, the National Policy of 1988 gave strong support to the empowerment of local communities in the protection and development of forests, leading to the adoption of what is known as Joint Forest Management (JFM). This is a government programme designed to share benefits with local communities in exchange for their limited involvement in forest management (Pathak and Kothari 2010). According to Pathak and Kothari (2009: 20), "JFM continues to be implemented in project mode without institutionalising participation in forest management." Nonetheless, after 1990 every state in India approved JFM resolutions and by 2006, 106,482 Joint Forest Management Committees (JFMCs) were protecting over 22 million hectares of forests in 28 states (Pai and Datta 2006). In 2001, a central government order amended JFM and due recognition was given to Self Initiated Forest Protection Groups (formed in the early 1990s). However, administrative hurdles remain as the order failed to specify the procedures to be followed to assess these groups (Mittra and Bhattacharya 2008; Bhattacharya et al. 2010).

In 2006, India released the Scheduled Tribes and Other Forest Dwellers Bill (also known as the Forest Rights Act, FRA), which seeks to address the historical injustices done to communities whose forest rights have not been legally recorded and have thus been denied their traditional rights to forestlands and their resources. The Act recognises and grants forest-related rights to scheduled tribes³ and other communities who have

traditionally been living in, or depending on, forestlands for their legitimate livelihood needs (Kothari et al. 2011a). The approval of the Act has been controversial. Whereas conservationists and the Ministry of Environment argue it will lead to more deforestation and forest degradation, social groups argue it will lead to conflicts between forest dwelling scheduled tribes and other traditional forest dwellers (Walpole et al. 2009). Moreover, the Council for Social Development reports that the implementation of the FRA is being undermined by faulty operationalization, leading in some cases to further denial of the rights of tribal and other traditional forest dwellers, contravening *de facto* the spirit of the FRA.⁴

Nepal

Nepal formally established the concept of participatory forest management in 1978, when the operating rules for the Panchayat Forest and the Panchayat Protected Forest were adopted. A strong impetus was given to CFM by the adoption of the Master Plan for the Forestry Sector in 1989 which empowered Community Forestry User Groups (CFUGs) to take over substantial portions of government-owned forests. Probably the most significant regulatory developments in Nepal have been the enactment of the Forest Act in 1993 and the formulation of the Forest Rules in 1995, as they institutionalised CFUGs as independent and self-governing entities, and provided the grounds to further expand community forestry nationwide (Kanel 2007).⁵ Nonetheless, the traditional use rights of landless and seasonal forest users have been negatively affected (particularly those from the high mountains) as their traditional rights are not recognized (Walpole et al. 2009: 95). Moreover, persistent patron-client relations (between the government and local elites) have produced a lack of empowerment of poor individuals and communities with little to no political power, producing uneven access of communities to forest resources (Malla 2001).

Philippines

The Philippines, like Nepal, is counted as a pioneer in the implementation of community forestry in Asia (Hartanto 2007). In 1982, it established the Integrated Social Forestry Programme, giving communities access to forest lands for periods of 25 years (Rebugio et al. 2010). In 1995, after a decade of experimentation with community forestry projects and schemes, a community-based forest management policy was launched aiming towards a more decentralized, participatory and people-oriented scheme, followed by the release of the Rules and Regulations for the Implementation of a Community Based Forest Management Strategy, which established the responsibilities of communities, local governments and state agencies (Poffenberger 1999; Pulhin et al. 2007). This policy transition took place in the aftermath of a logging boom, where the Philippines went from being one of the main suppliers of tropical timber in the world, to a net importer of timber, with most old growth forests heavily impacted or destroyed (Pulhin et al. 2007; Rebugio et al. 2010).

In 1997, the country approved the Indigenous Peoples Rights Act (IPRA), providing an additional legal basis to further develop community forestry, as the state acknowledged its responsibility to secure the rights of indigenous communities to their ancestral domains, as well as to ensure their economic, social and cultural wellbeing. Nonetheless, the implementation of the IPRA has at times contributed to the exacerbation of pre-existing conflicts among communities over land disputes or access to resources such as water.⁶

Cambodia

Before the 1970s, Cambodia's forests were not under severe threat. The civil war and political instability during and after the 1970s helped prevent any form of commercial forest management. But by the 1990s, forest concessionaires had become the main users of forest resources. The logging ban imposed by China in 1998, by Thailand in 1989, and the depletion of forests in Viet Nam, considerably increased the pressure on Cambodian forests. The damage caused by concessions was such that by 2001, the country had declared a logging moratorium and cancelled most concessions (Heng and Scheyvens 2007).

In the mid-1990s, partly as a result of the pressure from donors and the international community, community forestry was adopted by the government as a measure to tackle corruption in the forest sector, recognizing that communities are an essential element for the protection and management of forests (Callister 1999; Heng and Shigeru 2002; Heng and Sokhun 2005). Since then Cambodia has taken steps towards the institutionalisation of community forest management. The Forest Law of 2002 recognizes community titles, in line with the Land Law of 2001 (Heng and Scheyvens 2007), and the Sub-Decree on Community Forest Management lays out the roles, duties and rights of communities and their organizational structure as well as the roles of governmental organizations regarding supervision and technical assistance for communities. However, the implementation of CFM is hampered by a tendency to give priority to the government, the military and concessionaires in the appropriation of timber rents, a trend that has also been observed for Viet Nam (Sunderlin 2006).

Viet Nam

After two decades of war (1955-1975) the state nationalized large tracts of forests and became directly involved in the administration, exploitation, processing and distribution of forest resources. It established state forest enterprises to manage industrial timber production as well as a variety of social organizations, including farmer associations, a women's union and youth brigades to replace traditional institutions. Logging, halting swidden agriculture and encouraging permanent settlements amongst ethnic minorities were prioritized.⁷ Community forestry was not prevented and thus continued to exist, but since the commune is the lowest legally recognized administrative unit, forest management by villages or hamlets was not legalized (Sam et al. 2007). The establishment of production quotas, based on state needs instead of sustainable yields, resulted in the rapid degradation of forests. In response, the state made a fundamental change to its forest policy from "state forestry" to "household forestry" (Sikor 1998), as the state sought to give households stronger participation in forest management by allocating land to collectives, households and individuals to establish and rehabilitate forests.

Under the Forest Protection and Rehabilitation Act of 1991, use rights for production forests could be allocated to households and other non-state bodies, but it was not until 2004 that community forestry was formally recognized. Nonetheless, the development of community forestry is now being approached through pilot projects. It is expected that a formal national programme will be developed after the piloting phase (Wode and Huy 2009). The Land Law of 2003, which regulates the administration and use of land, created the legal basis for community forestry by including communities amongst its types of land users. The legality of community forest tenure was recognized in 2004, when the Law on Forest Protection and Development was approved. These laws are very important to community forestry in Viet Nam because they allow for the recognition

of traditional (local) forest management institutions, they strengthen the position of villagers in defence of their forests against external threats, and they attract support from development agencies (Nguyen et al. 2008).

Indonesia

In Indonesia, forest resources have been consistently allocated to elites with close ties to political figures (Barr et al. 2006). Besides the award of concessions to political clientele, between 1979 and 1984 the state also actively promoted migration—notably from Java—to forest regions in the outer islands (Arnold 2008). These forms of land allocation often turned indigenous communities into squatters on their own lands (Kusumanto and Sirait 2000; McCarthy 2000). Exclusion and eviction of local communities has led to social unrest that in many occasions has taken the form of violent conflicts in which the state has traditionally sided with actors with whom it has converging economic interests (Colfer and Resosudarmo 2002). Even though Indonesia's Forest Law of 1999 has a chapter on customary law (Chapter IX) that states that communities have a right to undertake forest management, this right is undermined by restrictions on communities whose traditional uses are recognized by the government, and by the provision that it only applies, as long as such traditional uses do not contravene the Forest Law.⁸

Since the mid-1980s, partly in response to the mounting problems of forest degradation and social conflicts around forests, the government began experimenting with collaborative forms of forest management with communities. One of the first forms of such collaboration was allowing intercropping on state forest plantations in Java. However, it produced disappointing results in terms of increasing forest cover and improving local livelihoods (Kusumanto and Sirait 2000). Local participation in this system only improved after communities received increased benefits from timber profits from state forest plantations (Adi et al. 2004). According to Colchester (2002), Indonesia's serious efforts to develop CFM only really began in the 1990s. In this next chapter, two government CFM programmes will be discussed: the community forestry programme (Hutan Kemasyarakatan, HKM) and the village forestry programme (Hutan Desa).⁹

3. Key content of laws regulating community forestry

This section discusses the qualification requirements of CFM programmes, their institutional arrangements—with particular attention to the space given to local forms of organization and decision-making—and the extent and security of property rights envisaged by CFM programmes.

The contents of laws regulating CFM set out important elements that support the green economy. Qualification requirements and institutional arrangements that are inclusive of local communities and provide spaces for local forms of organizations in decision-making processes contribute to creating an environment of social equity. By enhancing local ownership of CFM, the content of laws regulating CFM can also improve forest governance. The extent and security of property rights are also supporting factors of the green economy inasmuch as they contribute to the allocation of the benefits of forest use to communities and enhance their well-being.

3.1 Qualification requirements

Qualification requirements for CFM are important to assess how inclusive different CFM models are and to gain a sense of whether CFM programmes target legitimate claimants.

As stated in the introduction, rigid qualification requirements tend to marginalize rightful claimants to forest areas (Table 5.3).

Table 5.3 Basic qualification requirements for state-sponsored CFM programmes

Country	Name of CFM programme	Residency requirements	Other requirements
India	JFM	Local communities living in forest areas	Vary according to state regulations
	FRA	General conditions: ¹ <ul style="list-style-type: none"> • Primarily reside in forests or forest lands; • Livelihood depends on forests and forest lands Differentiated conditions: <ul style="list-style-type: none"> • Scheduled tribes: reside in the area before December 13, 2005 • Traditional forest dwellers: reside in the area at least for 75 years prior to December 13, 2005 	Claimed areas—by either an individual, family or community—cannot exceed 4 hectares per community ²
Nepal	CFUGs	Local communities living in forest areas	-
Philippines ³	CBFM	<ul style="list-style-type: none"> • Till parts of the area to be awarded, or • Traditionally use the resource for all or substantial livelihood maintenance, or • Reside in or near the areas to be awarded 	-
Cambodia	CFM	Residents of a village that share common social, cultural, traditional and economic interests	-
Viet Nam	CFM	Reside in the same hamlet or village that share the same habits, customs and ethnicity	-
Indonesia	HKm	Reside in an area selected by the MoF or the Regency	Support from the Regency (Bupati)
	HD	Forest must be administratively part of the village	Support from the Regency (Bupati)

Notes: ¹ See: <http://www.forestrightsact.com/what-is-this-act-about>

² See FRA, Chapter III, 4(6): <http://www.forestrightsact.com/the-act/item/download/1>

³ See: <http://forestry.denr.gov.ph/primer.htm>

Source: Authors

In different CFM programmes, some common qualification requirements can be observed, such as demonstration of habitation over a certain period of time and nationality. Residency requirements vary widely from simply residing in an area or demonstrating some form of land use (as in the Philippines, Nepal and India in the case of JFM), to more specific traits such as sharing customs, traditions and ethnic origin, which is the case for Cambodia and Viet Nam. In the case of these last two countries, specifications of ethnic origin and shared customs provide for the possibility of ethnic minorities to have their claims to community forests recognized. In India,¹⁰ the FRA establishes different qualification requirements for “other traditional forest dwellers” and scheduled tribes, requiring the former to demonstrate residence over 75 years prior to December 13, 2005, whereas scheduled tribes must only demonstrate that they resided in the area prior to December 13, 2005 (Kothari et al. 2011b). It is plausible that this differentiated requisite puts other traditional forest dwellers at a disadvantage for claiming rather small areas, and that is likely to act as a disincentive for their engagement. Although the FRA intends to target forest dwelling communities, the Act also stipulates that individuals and families can claim forest areas limited to a maximum of four hectares.

In Indonesia, community forestry programmes gloss over the ongoing conflict created by the lack of recognition of customary (*adat*) rights in the Forest Law (1999)—which can be traced back to the Basic Agrarian Law of 1960 (Kleden et al. 2009)—that limits the acknowledgment of customary rights to their recognition by the legislation itself, and only when there is no conflict with national interests. The awarding of forestry concessions has been regarded by the state as a matter of “national interest,” thus villages can only qualify to engage in either form of CFM (HKm or Hutan Desa (HD)) if their area has no overlap or conflicts with forest concessions. In the case of HKm, conflicts are unlikely to arise since these areas are previously earmarked by the local government with the approval of the Ministry of Forestry.¹¹ Other qualification requirements for traditional (*adat*) communities to participate in CFM are that they continue to live in their ancestral lands and that their presence is officially acknowledged by local legislation (Kleden et al. 2009). Probably, the reason why explicit support from the local government is a qualification requirement is to demonstrate that a local community is officially acknowledged by the local legislation. Nonetheless, these last requirements remain very contentious and are an ongoing source of conflict, documented in a large body of literature.

It is a rather straightforward conclusion that the less stringent qualification requirements are, the more inclusive they can be for rightful claimants. The establishment of differentiated requirements for groups of customary users can result in lengthy bureaucratic processes that demand resources and know-how that the allegedly targeted beneficiaries often lack, not to mention it can also enhance the opportunities for bribery. When a qualification requirement depends on the acknowledgement by a government body of the existence of a customary group, this opens space for arbitrary decisions and marginalization of rightful users of forest resources. Therefore, without strong government commitment to support customary users and ensure they have access to resources granted to them by existing regulations, low rates of participation and marginalization are likely outcomes.

3.2 Institutional arrangements: Administrative procedures, the role of government agencies and spaces for local organizations in decision-making

Institutional arrangements are an essential element in the implementation of CFM as they lay out the norms and rules through which forest resources can be used as well as how decisions about their use can be made. Thus they establish procedures for CFM that include not only the devising of forest management plans and the fulfilment of a number of bureaucratic procedures, but also determine the acknowledgement/inclusion of specific—local and governmental—organizations in those decision making processes (Table 5.4). The more difficult/elaborate technical and bureaucratic procedures are, the more they will prevent communities from engaging in CFM. Such problems will be exacerbated to the degree that local communities lack the means to undertake those procedures and external support is scarce. Likewise, the more institutional arrangements allow for local forms of organization and decision-making, the more likely they are to harness local interest and ownership of CFM, thereby improving forest governance.

Table 5.4 Roles foreseen for community organizations and government agencies in CFM programmes

Country	Name of CFM programme	Role of community organizations	Role of government agencies
India	JFM	<ul style="list-style-type: none"> • Create Joint Forest Management Committee (JFMC) • Self-initiated Forest Protection Groups (SIFPG) 	State Forest Department: <ul style="list-style-type: none"> • Acknowledge and formalize agreement with JFMCs • Studies SIFPGs before giving them JFMG status. However, there are no procedures to assess these groups prior to the creation of a JFMG¹
	FRA	<ul style="list-style-type: none"> • Gram Sabha (village assembly): consolidates and verifies the claims of each individual village 	Recognition of rights takes place through: <ul style="list-style-type: none"> • Sub-district and district committees: verify and maintain claim records • State: monitors implementation at state level
Nepal	CFUGs	CFUGs <ul style="list-style-type: none"> • Letter of interest to the DFO • Identify traditional forest users • Draft Constitution of CFUG • Submit formal application to the DFO 	District Forest Office (DFO) <ul style="list-style-type: none"> • Support CFUGs throughout the identification of traditional forest users • Provide technical support throughout the process of establishment of a CFUG • Endorse CFUGs and issue registration certificates
Philippines	CBFM	Peoples' Organizations (POs) <ul style="list-style-type: none"> • Represent communities • Prepare Community Resource Management Framework (management plan) 	DENR & LGU <ul style="list-style-type: none"> • Identify potential sites, plan forest uses with communities, • Organize and prepare communities for Community Based Forest Management Agreements (CBFMA) • Endorse and issue CBFMA • Provide technical assistance and skills • Monitor progress and environmental impact of CBFM activities
Cambodia	CFM	<ul style="list-style-type: none"> • Letter of interest to the Forest Administration • Establishment of Community Forest Management Committees (CFMC): Participation of at least 60% of the community in the formation of the CFMC (women must be encouraged to participate) • CFMC drafts by-laws and CFM regulations with assistance of the FA or NGOs • Participate in (GPS) demarcation of forest boundaries • Prepare forest management plan 	Forestry Administration: <ul style="list-style-type: none"> • Establishes facilitation team that selects CFM site • Analyses land use history and tenure, community organization, indigenous management systems and land conflicts • Performs workshop to disseminate information on the chosen CFM site • Mapping of the targeted forest areas • Supports the formation of the Village Forest Committee and the preparation of forest management plan Forest Administration Cantonment: <ul style="list-style-type: none"> • Approves CFM agreement between CFMC and FA. Agreement outlines the roles of each actor

Country	Name of CFM programme	Role of community organizations	Role of government agencies
Viet Nam	CFM (pilot)	<ul style="list-style-type: none"> • Develop rules on forest protection and development • Develop forest management plan 	Districts: <ul style="list-style-type: none"> • Authorises timber harvesting • Provides legal support Communes: <ul style="list-style-type: none"> • Liaise with districts • Provide logistical organization for planning and reporting
Indonesia	HKm	Application can then be undertaken by either: <ul style="list-style-type: none"> • Farmer groups • Farmer cooperatives 	MoF <ul style="list-style-type: none"> • Approval of logging licenses Regencies <ul style="list-style-type: none"> • Approval of license for NTFP
	HD	<ul style="list-style-type: none"> • Letter of interest to the district government • GPS zoning of the forest • Prepare management plan 	Letter of support from the Regency

Notes: ¹ See Mitra and Bhattacharya (2008).
 Source: Authors

Although CFM programmes show different levels of flexibility to accommodate local forms of organization, these are always under the supervision of government organizations, making the local organization for CFM programmes subject to pre-established governmental schemes. This in some cases may take the form of a more or less functional working partnership between government agencies and community organizations, whereas in others it results in less effective and/or flexible arrangements. In general, we conclude that CFM programmes in the region are designed in such a way that communities cannot participate without external support from either the government, NGOs or both.

For example, in Cambodia, regulations require participation of at least 60% of the community in the election of the CFMC, which should work with the Forestry Administration towards the establishment of CFM (Sokhun et al. 2005). In spite of governmental efforts towards building its own institutional capacity and awareness about CFM, the programme remains heavily dependent on donors and NGOs to support communities. This pattern has also been observed for Cambodia, Viet Nam and Laos (Sunderlin 2004, 2006). Likewise, in the Philippines, the DENR and LGUs should work with People’s Organizations (POs) to establish forest management frameworks (CFMF), but these partnerships are not always effective, often leaving the bulk of work and the costs to the POs (Pulhin et al. 2007). Even though POs can determine their own goals and management strategies, the technical and bureaucratic requirements are such that POs cannot move forward on CFM without strong external assistance, in the absence of effective support from the DENR and LGUs (Walpole and Annawi 2011).

Viet Nam and Nepal’s regulations are not specific on how communities should make decisions. Nevertheless, Nepal’s regulations¹² aim at promoting participatory and inclusive decision- and rule-making processes at the village level under the supervision of the DFOs (Kanel and Kandel 2004; Ojha 2009), and communities have to devise rules specifically designed to address their needs (Karmacharya et al. 2003; McDougall et al. 2008). Moreover, Nepal’s CFUGs are acknowledged as self-governing entities with a right to perpetual succession (Kanel 2007). Notably, Nepal has invested in building the capacity of government officials to change their behaviour away from their traditional role of dominant, decision-making authorities towards a role more in tune with a participatory

approach (Acharya 2002). However, lack of legal awareness and large numbers of users overwhelm DFOs in achieving their tasks (Kanel 2007), a hurdle that has also been observed in the case of India's JFM programme (Sarin 2008; Vemuri 2008). In Viet Nam, it is expected that norms on community organization will be released once the piloting process is finished (Nguyen et al. 2009).

Indonesia's CFM programmes involve long and cumbersome approval procedures (Colfer et al. 2008; Akiefnawati et al. 2010). In the case of the first (and to date only documented) HD case in Lubuk Beringin, Jambi, Akiefnawati et al. (2010) report that approval took two years. Although the HD model allows villages to develop their own regulations, it requires them to prepare annual work plans that must be approved and monitored by the district government. Despite communities having the right to decide on their own rules and regulations, it is the drafting of technical work plans that—without strong external support—communities cannot undertake (Akiefnawati et al. 2010). In the case of the HKm programme, even though it was established to encourage farmer groups to undertake CFM, in reality it is focused on the creation of cooperatives, a business model criticized for having little grounding in traditional forms of local organization—as well as for decades of failed efforts in agriculture—while promoting a commercial approach to managing forest resources under the same rules as logging concessions (Campbell 2002; Safitri 2006).

In India, while the FRA reaches to village assemblies (*gram sabha*) as the basic local institution through which land claims are verified, the actual recognition of land rights takes place through a multi-layered process of government authorities (Kothari et al. 2011b). A report from the Council for Social Development finds that village assemblies have often been ineffective because their role has frequently been ignored by state governments who have empowered officials to replace the assemblies. This has resulted in a rather weak implementation of the FRA, producing continued interference from forest departments in the recognition of customary rights.¹³

From these examples, it can be seen that that government-sponsored CFM programmes seek in varying degrees to include local institutions in the processes of determining the use of forest resources. Nepal, Cambodia and the Philippines provide good examples where CFM programmes seek to create participatory decision making processes, whereas in Viet Nam there is uncertainty that these spaces will be provided (until the pilot process is finished and a national CFM programme is launched). These CFM programmes may be more likely to obtain representative outcomes and stable operating conditions, than programmes that have a top-down approach and that do not seek to accommodate local institutions—as is the case with Indonesia's HKm—or where governmental authorities supersede local forms of organization—as seems to be the case in India's FRA.

Whereas participatory processes can be considered a strength of these programmes, it is often the role of government agencies that needs to be improved. Without state support, communities may not be aware of or have the capacity to take advantage of the opportunities presented by CFM programmes. In many local communities, traditional leadership has been eroded through outside influences, and investment in institution building may be required before they can participate successfully in community forestry programmes. Additionally, elite capture at the local level as well as corruption at higher levels continue to challenge the implementation of CFM programmes.

3.3 Extent and security of forest rights

The extent and security of use rights are both indicators of the potential contribution of CFM to people's well-being. The extent of use rights refers to the range within which forest resources can be used (e.g., subsistence, commercial or both) and the security of rights entails not only the use rights communities have, but also the external factors that can challenge those rights.

Extent of use rights

The extent of use rights is determined by how completely property rights are recognized and respected. Complete property rights have three main characteristics: (1) comprehensiveness, where the asset is allocated to a specific actor who can use it at will, that is, obtain units or products and determine the use patterns or even transform the resource; (2) exclusivity, where all the benefits and costs accrue to the owner, who can also determine who can access the resource; and (3) transferability, where the owner can transfer the asset to another actor in a voluntary exchange.¹⁴ Moreover, these rights (1, 2, and 3) cannot be held in the long-term without assurance that they will be enforced by the state (Wang and van Kooten 2001: 13).

A common characteristic of these CFM programmes is that they do not confer complete property rights as the allocated forest areas are not transferable (Scheyvens et al. 2007; Dahal et al. 2011). India's FRA, on the other hand, gives tenure rights to claimants in a perpetual fashion as community members receive land titles, which can be inherited but not sold (Kothari et al. 2011b). States maintain ownership of forest lands and bestow use rights in the form of licences and/or leases over limited—although renewable—periods of time (see Table 5.5). There is no available explanation of how these use periods are determined, for example, why they are limited to 15 years in Cambodia and go as far as 50 years in Viet Nam. In the case of Indonesia, apparently the use periods were determined by following rotation periods usually used in plantation forestry.¹⁵ Likewise, a hypothesis for the case of Cambodia is that the use period was established according to the rotation of fast growing tree species. In theory, longer use periods will make communities amenable to planning in the long-term, but assurance of continued access to forest resources will determine their willingness to engage in long-term forest management. This will be discussed in further detail in the next section.

All CFM programmes grant subsistence use rights and some expressly acknowledge traditional use rights (e.g., in Nepal, India, the Philippines and Cambodia). The comprehensiveness and exclusiveness of use rights is extended insofar as CFM programmes grant commercial use rights, with varying levels of specificity. Although in principle most CFM programmes allow the use of forest resources for commercial purposes (except in protected areas), once technical requisites have been fulfilled, conditions on the use of such resources can limit benefits and even become an access barrier. For example, in the Philippines, harvesting and selling trees is allowed, but a cumbersome approval process to transport timber outside CFM areas acts as a deterrent for communities to comply with established procedures, making them engage in illegal logging (Hartanto et al. 2003; Walpole and Annawi 2011). Similarly, in Nepal although CFUGs are allowed to fix the prices of forest products and transport them anywhere in the country, they must clear paperwork with the district forest office (Kanel 2007). In India, under JFM, villages can take over degraded lands with the objective of raising valuable timber species. Thus plantations are established and forests regenerated, and even though communities have the right to determine how benefits will be shared, they must share benefits with forest departments (FD). The proportion to be shared with FDs

is determined by each state (Apte and Pathak 2003; Pathak and Kothari 2010). In the case of the FRA, although forest areas of up to four hectares can be claimed, logging is allowed only if the area does not exceed one hectare, tree felling does not exceed 75 trees and the harvesting is recommended by the *gram sabha* (Kothari et al. 2011b), suggesting that the potential benefits a community can obtain from forestry are very limited.

Exclusivity is also observed in different degrees of specificity. Some regulations endow communities with rights, such as deciding whether to allow the use of resources by other communities, how to share benefits internally, and even the right to apprehend, confiscate tools and fine violators of community rules (e.g., Nepal, Cambodia and the Philippines). Nonetheless, allowing local institutions the right to determine exclusion rights may not always be congruent with a CFM model that aims at improving the general well-being of local actors. This holds true in cases where local elites can influence the making of local rules and capture benefits. This has been observed in Indonesia, India and Nepal (Komarudin et al. 2008). In the cases of India and Nepal, power continues to be distributed along the lines of caste, gender and religion, hampering the involvement of large groups of forest-dependent poor in the implementation of community forestry. This power distribution often results in community forestry groups being dominated by elites instead of representative organizations of all community sectors (Kapoor 2001; Karmacharya et al. 2003; Sarin 2003; Nayak 2006; McDougall et al. 2007).

Exclusiveness can also be restricted through taxation of activities related to CFM, and here differences can also be found across countries. In the case of Cambodia, the amount of taxation is apparently subject to consultations between the government and communities.¹⁶ A less flexible system is found in Indonesia, where both programmes (HKm and HD) must pay taxes and fees like any forest concession (Campbell 2002; Safitri and Bosko 2002; Akiefnawati et al. 2010). Two outstanding features of Nepal's CFM programme are that user groups¹⁷ have control over the commercial earnings from forest products, and that instead of being taxed, 25% of all cash income must be invested in collective development activities (Agrawal and Ostrom 2001).

The extent of use rights influences communities' discount rates (Ostrom 1999). This means that CFM programmes in which communities can have specific benefits over long periods of time are more likely to engage in the sustainable management of the resource than when these benefits are limited and are for short periods. The experience of CFM programmes of Nepal, Viet Nam and the Philippines suggest that they have the potential to influence communities into managing forest resources with a long-term time horizon (adopting low discount rates). In the case of the FRA, although communities have, in principle, indefinite access to the forest resources, the rather small size of the area suggests that the benefits are likely not significant beyond subsistence purposes. The other element that influences community forestry discount rates is the security of rights (addressed below).

Table 5.5 Extent of use rights

Country	CFM programme	Comprehensiveness	Exclusiveness
India	JFM	<ul style="list-style-type: none"> • Collect and commercialize specific resources • Financial powers (e.g., maintain accounts and incur expenses) 	<ul style="list-style-type: none"> • Benefit distribution from conservation and regeneration (benefits are shared with State Forest Departments; extent and conditions vary across states) • Define rules governing forest management • Administrative powers to summon meetings of the Management Committee • Voting rights in Management Committees • Punitive powers (e.g. impose fines) • Membership cancellation of recalcitrant affiliates
	FRA	<ul style="list-style-type: none"> • Traditional community use rights • Own, collect and use minor forest products • Convert leases or grants—issued by any local or state government authority on state forest lands—into titles • Convert forest villages, old habitations and un-surveyed villages into revenue villages¹ • Protect, regenerate, conserve or manage any community forest reserves used traditionally by individuals or communities • Access to biodiversity and community rights to intellectual property rooted in traditional knowledge • Any other traditional rights (except hunting or trapping any wildlife) 	<ul style="list-style-type: none"> • Hold and live in forest land under individual or communal occupation
Nepal	CFUGs	<ul style="list-style-type: none"> • Traditional community use rights • Plant short-term cash crops, including NTFPs 	<ul style="list-style-type: none"> • Fix prices for forest products under their jurisdiction • Transport forest products to anywhere in the country (in the case of timber, the DFO must be informed of the details)
Philippines	CBFM	<ul style="list-style-type: none"> • Occupy, possess, utilize and develop forest lands in designated areas • Develop agroforestry farms and sustainable agriculture <p>CFM in protected areas:</p> <ul style="list-style-type: none"> • Logging not allowed 	<ul style="list-style-type: none"> • Claim ownership of introduced improvements • Apprehension of violators • Confiscation of illegally extracted forest products as well as their conveyances • Imposition of penalties
Cambodia	CFM	<ul style="list-style-type: none"> • Acknowledgement of customary user rights • Manage forests according to regulations and management plan: harvest, process, transport and sell forest products and NTFPs • Practice swidden agriculture 	<ul style="list-style-type: none"> • Share benefits from CFM • Participate in monitoring of CF • Appeal decisions that impact CF community rights • Payment of any required royalties or premiums on forest products or NTFPs (except for customary user rights). Royalties and premiums should be set after consultation with communities.

Country	CFM programme	Comprehensiveness	Exclusiveness
Viet Nam	CFM	<ul style="list-style-type: none"> • Enjoy benefits of labour and investments from the assigned forest areas • Exploit and use forest products for public and individual use • Conduct combined forestry and agricultural-fishery production 	<ul style="list-style-type: none"> • The pilot phase foresees that communities can define and institute proceedings about any breach of the laws on the land. • Compensation from the state in case the state recovers a CF (e.g., security and development purposes)
Indonesia	HKm	<ul style="list-style-type: none"> • License granted to farmer groups or cooperatives in production, protection and conservation forests to use timber (in production forests) and NTFPs (in protection forests), area use, environmental services 	<ul style="list-style-type: none"> • Pay taxes and fees: annual tax, stump fees, afforestation tax
	HD	<ul style="list-style-type: none"> • Management rights of forests: timber use (in production forests) and NTFPs (in protection forests), area use, environmental services 	<ul style="list-style-type: none"> • Pay taxes and fees: annual tax, stump fees, contribute to the reforestation fund

Notes: ¹ These are villages that have shifted from subsistence farming towards the establishment of cash-crops.

Source: Authors

Security of rights

As illustrated in Table 5.5, security of use rights (in this case comprehensiveness and exclusiveness) depends on the assurance that user rights are enforceable and guaranteed by the state. It is through the state's assurance that communities will have continued and stable rights granted to them in the norms and regulations of CFM programmes that their engagement may be ultimately harnessed (Table 5.6).

Table 5.6 Use rights stability given through CFM programmes

Country	CFM programme	Period granting use rights (years)	Rights stability
India	JFM	Indefinite	*
	FRA	Permanent	*
Nepal	CFUGs	Permanent	***
Philippines	CBFM	25	*
Cambodia	CFM	15	**
Viet Nam	CFM	50	**
Indonesia	HKm	35	*
	HD	35	*

Notes: * Weak

** Stable

*** Very stable

Source: Authors

Saigal (2007) observes that India's JFM programme lacks a solid legal basis, as it is based on administrative orders that can be changed unilaterally at any time. Thus, the terms of partnership between communities and forest departments lack long-term security because of frequent changes to JFM resolutions. In the case of the FRA (besides the flaws that have been identified earlier), Kothari et al. (2011b) observe that the state

itself violates the Act as it has undertaken evictions of potential rightful claimants. An additional hindrance to the empowerment of forest dwellers and scheduled tribes has been a shortage of information about the Act. In the Philippines, a rather unstable policy environment weakens use rights stability as it has often led to the cancellation of resource use permits (Pulhin et al. 2007). In this regard, Walpole and Annawi (2011: 90), report that “many (...) mineralized areas are in ancestral domain forests, and are ridden with environmental and IP’s rights violation issues.” Furthermore, they report that the simplification of the process of “free prior informed consent” (FPIC) foreseen in the Indigenous Peoples Rights Act of 1997 has allowed the weakening of indigenous peoples’ forest use rights when stronger economic interests are at play. Similar observations regarding the violation of customary rights by mining companies and plantations are documented for Indonesia (e.g., EoA 2009). Rights stability provided by Indonesia’s CFM programmes are deemed weak because the regulations themselves are weak. In the case of HKM, the programme offers weak tenure security since it operates under Ministerial decrees and regulations—which can be changed at any time—and in the case of HD, the Ministerial Regulation of 2008 is also considered an insecure and weak legal instrument (Dahal et al. 2011).

A characteristic shared by India, Cambodia, Viet Nam and Indonesia is that their laws allow the state to withdraw use rights whenever “higher interests” are claimed. For example, in most states of India the forest department can dissolve forest protection committees, with communities having the right to “appeal only to a higher official of the FD” (Saigal et al. 2007). Similarly, in Viet Nam, the state can re-claim community forests in a number of situations (e.g., for security and developmental purposes). Communities have the right to demand compensation from the state, but this may not always be effective. However, Nguyen et al. (2009) conclude the Land Law of 2003 does strengthen communities’ ownership rights. Likewise, in Cambodia and Indonesia, community forestry areas can be dissolved by the government if those areas are thought to provide higher, alternative public benefits (Colchester 2002; Sokhun et al. 2005), and it is not clear whether communities have effective legal ways to appeal such decisions, although in Cambodia communities have, in principle, the right to appeal decisions that impact their rights.¹⁸

The extent to which user rights in CFM programmes are secured by the state brings forward these programmes’ imperfections. On the one hand, one could argue that CFM programmes grant—in varying degrees—a number of significant use rights to communities. But on the other hand, this significance is eroded by either contradicting policies, weak laws and regulations, or even the undermining of their implementation by the authorities themselves, all of which contribute to weak forest governance.

To the extent that different countries may be able to improve the stability of community use rights, it may increasingly be possible to harness community engagement in CFM. In such a context, one could assume that communities engaged in CFM programmes have low discount rates. To be sure, some CFM programmes show strengths in terms of the comprehensiveness and exclusiveness they grant to communities, but the role the state plays in ensuring the stability of those rights needs to be improved. A noteworthy example of ensuring the stability of use rights is given by Nepal, which, in spite of financial and human resources shortcomings, provides a strong and stable legal foundation for CFM, as use rights are granted in a permanent fashion and supported by an apparently enduring institutional framework. The relevant point is that as long as the state cannot fulfil its role as guarantor of use rights for communities, those rights may be challenged, making it increasingly difficult to create confidence among communities to engage in the long-term management of forest resources.

4. CFM and REDD+

Many countries in the Asia-Pacific region are undergoing decentralization processes that have given community forest management (CFM) a stronger role as an instrument to sustainably manage forest resources and alleviate poverty. In this context, CFM has potential to contribute to the empowerment of local communities and to the enhancement of their well-being. CFM can also be instrumental in addressing climate change mitigation and adaptation through the maintenance and enhancement of forest resources and their corresponding carbon stocks. The inclusion of CFM in climate change mitigation efforts may have the potential to provide additional financial benefits to local communities in the long run, provided it can secure access rights of communities to forest resources and establish fair benefit-sharing mechanisms (Chhatre and Agrawal 2009), both elements considered necessary to reduce poverty in Asia (Mahanty et al. 2006; Sunderlin 2006). Ensuring the inclusion of CFM in the efforts to mitigate climate change is also in line with the Cancun Agreement on Reducing Emissions from Deforestation and Forest Degradation (REDD+) and the UNFCCC which calls for “ensuring the full and effective participation of relevant stakeholders, *inter alia* indigenous peoples and local communities,” respecting their rights and knowledge, without threatening food production, and enabling sustainable development (UNFCCC 1992; 1/CP.16, Nr. 72). CFM programmes need also consider that they will play a role not only in climate change mitigation efforts but in climate change adaptation as well. Recognizing the value of local knowledge on forest management to design adaptation strategies can prove an effective strategy to address adaptation in a proactive manner and in a way that measures are tailored to the local circumstances to ensure their viability (Innes et al. 2009; Roberts et al. 2009).

4.1 CFM and the challenges towards the implementation of REDD+

Over four decades, a regional movement towards greater state recognition and support for community forestry has been observed. The area of forest land, albeit often degraded and sometimes without forest, under community forestry has expanded significantly over this period. CFM programmes and models have been strengthened, and while the shortcomings and challenges that remain are substantial, the environmental, social and economic benefits discussed above indicate that progress is being made.

As mentioned in the introduction, climate change mitigation is now a top global priority for forest management, and some developing countries have prioritized their forest sectors in their nationally appropriate mitigation actions (NAMAs). That community forestry is now an important policy initiative within the region and that the area under community forestry has been expanding begs the question, can community forestry contribute to climate change mitigation through REDD+ and, if so, how? To answer these questions, we must first understand what REDD+ is and its requirements. We can then consider whether community forestry meets these requirements and what roles communities would or could play in REDD+. We are then in a position to consider how state-sponsored community forestry programmes need to be strengthened for REDD+.

4.2 What is REDD+ and what does it require?

In principle, REDD+ foresees a performance-based payment mechanism through which developed countries compensate developing countries for the reduction of CO₂ emissions associated with deforestation and forest degradation. Thus, any form of compensation that takes place through REDD+ requires the measurement of emissions that have occurred over a period of time against a baseline. A baseline determines the emissions

that would have taken place in the absence of any measures (a business-as-usual scenario). In this regard, forest conservation and restoration, and sustainable forest management play a key role in REDD+, as these activities avoid emissions through the maintenance and enhancement of carbon stocks, not to mention that they also deliver a host of other environmental goods and services of crucial importance for the livelihoods of communities.

Payments under REDD+ can take place either through a mandatory mechanism (i.e., compliance with emission reduction targets agreed within the UNFCCC, and over which there is still no final agreement for REDD+), or through the voluntary market. A discussion of the advantages or disadvantages of either regime is beyond the scope of this section, but their existence is worth mentioning, and that at the moment, under the voluntary market mechanism, carbon certification standards have been created to ensure that voluntary activities on REDD+ are credible.¹⁹ Some demonstration activities (i.e., REDD+ activities being undertaken under the UNFCCC framework) are already using voluntary certification standards.

Annex 1 of the Cancun Agreement (UNFCCC 2010), states that REDD+ should be implemented along with a set of seven social and environmental safeguards:

- (a) Actions that complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;
- (b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
- (c) Respect for the knowledge and rights of indigenous peoples and members of local communities, taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;
- (d) Full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities;
- (e) Actions consistent with the conservation of natural forests and biological diversity, ensuring that actions not be used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;
- (f) Actions to address the risks of reversals;
- (g) Actions to reduce displacement of emissions.

For the purpose of determining the requirements to implement REDD+, safeguards “c” and “d” are of particular relevance because they have a direct bearing on CFM programmes. Safeguard “c” makes particular mention of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). The relevance of the UNDRIP is that it calls for the engagement of indigenous peoples in any project that takes place on their territories through processes that respect the right of communities to give or withhold their “free prior informed consent” (FPIC) to proposed developments.²⁰ Furthermore, it must be noted that the right to FPIC in REDD+ goes beyond indigenous peoples. The framework of the UN-REDD programme and of some voluntary standards (e.g., Community and Biodiversity Alliance (CBBA) and the Verified Carbon Standard (VCS) to some extent) call for respect of all communities that will be affected by proposed REDD+ developments.

FPIC is of utmost importance for the implementation of REDD+ because through it, safeguards “c” and “d” can be guaranteed. Respect for the right to FPIC means that communities must not be coerced or manipulated at any time, that their input should be

sought well in advance of any planning or implementation decision taking place on their territories, that sufficient information should be disclosed to them in a language that is accessible to them about the nature of the activities related to REDD+, and that they should be able to understand the reasons for activities related to REDD+, their duration, and their potential implications for their livelihoods (UN-REDD 2009). Governments need to understand that respecting the right of communities to FPIC is not a one-off event, where a “yes” from a community leader is obtained. Respecting the right to FPIC entails ongoing negotiations and agreements, where communities have the right to express concerns about the design and implementation of a project and have the right to withdraw their consent and stop the project if re-negotiations are not satisfactory. Governments also need to respect the fact that the onus is on them, not communities, to carry out consultations and seek consent, and that communities also have the right to receive independent advice at any time (Anderson 2011).

From the CFM programmes that have been reviewed here, it can be seen that many of them draw upon legislation that upholds respect for the knowledge and rights of indigenous peoples and that expressly promotes participatory processes. Such are the cases of India’s FRA, the community forestry frameworks in the Philippines, Nepal and Cambodia. Nonetheless, a distinction must be made between what is found *de jure* and *de facto*. India’s FRA is a good example of this, as the Act, although it seeks to improve the livelihoods of those who are worse-off, in reality it is constrained by factors that hinder its proper implementation, hampering the respect of the rights of those groups it seeks to protect. Similarly, in the Philippines, in spite of legislation making direct reference to FPIC, the rights of indigenous peoples are not always upheld as the law demands. Indonesia is a case where the respect of the rights of indigenous and local communities remains a very contentious issue, particularly within the context of REDD+. ²¹

Currently, three of the countries discussed in this chapter (Nepal, Cambodia and Indonesia) are part of the REDD+ countries of the World Bank’s Forest Carbon Partnership Facility (a global partnership focused on assisting financially developing countries in their efforts towards REDD+), and FPIC is found only in Cambodia’s Readiness preparation proposal. ²² Nepal’s document does mention that consultations with communities have been undertaken, but this does not necessarily guarantee that a process that respects FPIC has taken place.

4.3 What role can CFM play in REDD+

One of the potential synergies between REDD+ and community forest management (CFM) lie in the fact that both are suitable to degraded forests. Ostrom (1999) observes that CFM is more likely to function where forest lands are degraded but not significantly devoid of trees, and where communities have low discount rates. This suggests that CFM programmes that are successful in providing significant use rights of forests to communities and are able to guarantee those rights have good framework conditions to engage in REDD+.

Skutsch and McCall (2010) argue that CFM can be instrumental for the implementation of REDD+ in cases where forests have a relatively low value (regarding timber) and where the opportunity costs of land are also relatively low. Research suggests that such communities can participate in measuring and monitoring carbon stocks in an effective and cost-efficient way without compromising their livelihoods and benefits obtained from forests (Chhatre and Agrawal 2009; Skutsch 2010). Therefore, effective community participation in REDD+ is conditioned to (i) allowing communities’ continued access to forest products that underpin their livelihood strategies; and (ii) ensuring that REDD+

contributes to the diversification of income communities are already obtaining from CFM (Karky and Rasul 2010; Zahabu and Malimbwi 2010).

It seems that, under certain conditions, state-sponsored CFM models could make an important contribution to some of the REDD+ activities, but consideration must be given to whether these models meet the basic requirements of REDD+. For community forestry, these would appear to be: communities that are able to understand and accept the concept of REDD+ and can participate in the design of REDD+ activities to suit their land use plans and vision; community forestry institutions that exist to ensure good management of the forest resource; communities that have legal rights of sufficient security and duration to ensure that climate benefits are achieved and are long-term (the requirement for “permanence”); trusting relationships with outside actors who will organise the necessary financial and technical inputs exist or can be developed; community financial systems that exist (or can be developed) and are capable of handling a new source of revenue equitably; and community forestry models that are supportive of the REDD+ safeguards. Reflecting on the discussion in part two, Table 5.7 considers whether the community forestry models meet these requirements.

Table 5.7 Implementation requirements for REDD+ and community forestry models

Requirements for REDD+ to be implemented through community forestry models	Strengths and weaknesses of community forestry in meeting these requirements	
	Strengths	Weaknesses
Sufficient understanding of REDD+ concept	Communities may be well-disposed to receiving new concepts because of previous training on community forestry.	Potential for confusion and misunderstanding because concept is complex and abstract
Organisations / institutions to implement REDD+ activities	Existence of community forestry groups, committees, plans and regulations developed through consensus processes	Elite capture: domination by more powerful groups (men over women, ethnic majorities over ethnic minorities, upper class over lower class) possible
Sufficiency of rights	Strong legal basis for community forestry in some countries	Weak legal basis in some countries; Weak rule of law; Legal basis needs to be developed; Length of rights under some models would have to be extended; Lack of clarity on carbon rights; Legal rights to trade in carbon may need to be elaborated
Trust relationships	In some cases good relationships between communities, district forestry offices, donors, NGOs, etc. have been established.	Risks exist where external actors make false promises or otherwise purposefully mislead the community for their own gain.
Community financial management	Under some CF models, communities are trained in book keeping.	There is potential for misappropriation of funds or inequitable distribution when institutions are weak, or where elite capture is probable.
Safeguards	Social safeguards more likely to be implemented as communities directly participate in REDD+	No standard processes of FPIC

Source: Authors

4.4 An example of integration of CFM and REDD+: Demonstration activity in Oddar Meanchey, Cambodia

A host of actors—government, NGOs, communities and private actors—have come together to design and implement a REDD+ activity in Oddar Meanchey.²³ The project is envisaged to be implemented within a timeframe of 30 years, and aims at creating an income stream that contributes to enhancing livelihoods and natural resource management. The benefit sharing agreement between the project developers, the government and the forest communities is that communities will receive 50% of the revenues after project costs.²⁴

The project has made an effort, with the help of the Buddhist Monk Community Forestry Association and the Children's Development Association, to involve communities in the design and implementation of the project and consultations are ongoing. It has involved communities not only in the accounting of carbon stocks, but also through training on bookkeeping, project management and the creation of micro finance groups.

Within the existing CFM framework, the project is implementing a number of activities such as:²⁵

- Reinforcing the status of community land tenure: taking advantage of the legal framework provided by the sub-decree on community forestry
- Developing sustainable forest management and land use plans with the communities, and using these tools to promote forest protection to prevent illegal logging (and reduce the risk of deforestation and forest degradation being displaced to areas outside the project, i.e., leakage)
- Supporting assisted regeneration and enrichment planting to enhance carbon stocks
- Reducing forest clearing through agricultural intensification
- Distributing fuel-efficient stoves and mosquito nets to reduce the consumption of fuelwood²⁶
- Enhancing the production, processing and marketing of NTFPs
- Fire prevention as fire is often used for hunting, shifting cultivation, collection of resin and the establishment of human settlements

The REDD+ demonstration activity in Oddar Meanchey shows that implementation of CFM, and its inclusion, in REDD+ is challenging but the problems are not insurmountable. The process needs to be envisaged in the long-term, and enough resources—both human and financial—need to be made available for design and implementation through a process that respects the right of communities to FPIC.

5. Conclusions

Existing CFM models are by no means perfect. The rights assigned to communities are in some cases too limited, some models may be too rigid to accommodate local specifics, and in some cases state efforts and resources to build community awareness and capacity are inadequate. Moreover, implementation of CFM models can be hampered by built-in attitudes of bureaucrats towards their own citizenry, resulting in paternalistic, suspicious and/or authoritative attitudes. Nevertheless, community forestry is now broadly formally accepted as an essential part of the way forward to better forest management in the region, and the lessons learned hitherto through trial and error offer instruction for other countries and regions where governments remain reluctant to engage communities in forest management, and where REDD+ activities are being planned.

In view of the weaknesses and contradictions observed in CFM programmes, care must be taken that REDD+ does not worsen them by overshadowing the importance that forests have for communities' livelihoods. Thus, it must be ensured that REDD+ is implemented as an additional activity to CFM, and not as one that restricts actual uses communities make of forests. The fact that CFM is often promoted on degraded lands gives communities an entry point in REDD+, particularly in the activity of enhancing carbon stocks, which in turn can be combined with adaptation activities. But it must be ensured that communities understand what REDD+ is, and the potential benefits and risks it may have for them. To improve the likelihood of good forest governance in REDD+, policy makers should be wary of building decision-making arrangements on existing, well-functioning local institutions, rather than imposing new, artificial ones on communities. In this regard, respecting the right of communities to "free prior informed consent" will contribute to improving the feasibility of REDD+.

The management of forests by communities under state-sponsored CFM programmes appears to be a practical prelude to REDD+ under certain conditions. These conditions include both the biophysical conditions discussed earlier, and the framework conditions that encourage communities to engage in CFM. This chapter suggests that CFM programmes conducive to REDD+ are those where governmental qualification conditions are easily met, programmes provide flexibility—or are inclusive of—local forms of decision-making, communities have access to a wide range of goods and services, and their access (property) rights are not easily challenged by third party actors.

It is fairly obvious that REDD+ offers a new mechanism for forest-dependent communities to access another source of revenue—funds associated with carbon credits. But in most cases it is not clear how they will access such funds and what their potential incomes from these funds may be. Even though REDD+ has raised the expectation of financial benefits, in most countries there is no clarity as to who is the owner of carbon rights. If there is a wish to engage communities in REDD+ through CFM programmes, this question must be cleared in advance. Otherwise, the creation of false expectations may cause the whole endeavour to run astray, and outside interests may gain the rights to forest carbon without the involvement or agreement of affected communities.

On the other hand, CFM models can show many years of experiences and lessons learnt on issues over which REDD+ provides yet little guidance. REDD+ provides an opportunity for CFM programmes to position themselves as a source of information for the design and implementation of REDD+. CFM programmes can provide valuable information on issues including benefit sharing arrangements, community involvement, complaint and dispute management mechanisms, as well as models of legislation and regulations that are supportive of local actors.

Notes

1. Viet Nam and Cambodia are partial exceptions to this. As communist regimes took over in the 1970s, forests in these countries were indeed claimed by the state but were run by state enterprises.
2. Nonetheless, other regions, e.g., Latin America, are more advanced than Asia-Pacific in the process of the devolution of rights over forest lands (Sunderlin et al. 2008).
3. The scheduled tribes and scheduled castes are two traditionally disadvantaged groups that are given recognition in India's Constitution.
4. See: <http://www.forestrightsact.com/component/k2/item/15>
5. See also: [http://lnweb90.worldbank.org/oed/oeddoelib.nsf/DocUNID/viewForJavaSearch/F98AB17A1743B72F85256B120070162D/\\$file/217_Nepal_Forestry.pdf](http://lnweb90.worldbank.org/oed/oeddoelib.nsf/DocUNID/viewForJavaSearch/F98AB17A1743B72F85256B120070162D/$file/217_Nepal_Forestry.pdf)
6. See: http://www.adb.org/Documents/Reports/Indigenous_Peoples/PHI/chapter_4.pdf
7. Many governments in developing countries (in this case, Viet Nam) see swidden agriculture as a cause of deforestation and not as a form of forest management, contrary to the view of many practitioners and academicians.

8. For a detailed discussion on the recognition of customary laws and communities in the Forest Law, see Wollemborg and Kartodihardjo (2002).
9. The Ministry of Forestry (MOF) argues that it has a third CFM scheme called “partnership between communities and concessionaires” that seeks to promote the involvement of concessionaires in community development, not the involvement of communities in forest management. It thus has little (if nothing) to do with community forestry. Additionally, whereas there are other forms of community forestry such as “hutan adat” (recognition of traditional forest management and rights), these are recognized only by regencies, not by the MOF. For further details on Hutan Adat, see: <http://www.worldagroforestrycentre.org/sea/Publications/files/policybrief/PB0013-10.PDF>
Moreover, the MOF is currently working on a revised version of the KPH system (Kesatuan Pemangkuan Hutan/ Forest Management Unit), allegedly seeking to accommodate communities within a larger, holistic scheme of forest management, along with other actors, such as concessionaires, against which communities have been traditionally at a disadvantage. Since the KPH scheme is not specifically designed for CFM—as is the case of HKm and HD—it is not discussed in this chapter.
10. The Act applies to most of the Indian territory. Exceptions include the state of Jammu and Kashmir, and those states which have declared that the Act will not be implemented because all forestland is privately owned or there are no resident traditional forest dwellers.
11. Agus Setyarso, personal communication, 19 September 2011.
12. See: Forest Act (1993) and Forest Rules (1995).
13. See: <http://www.forestrightsact.com/component/k2/item/download/51>
14. For a similar approach, see Agrawal and Ostrom (2001: 489).
15. Agus Setyarso, personal communication, 19 September 2011.
16. See Sub-Decree on Community Forestry Management, Article 13. Available from: <http://faolex.fao.org/docs/pdf/cam81979.pdf>
17. Which, as mentioned before, also suffer from elite capture.
18. See Sub-Decree on Community Forestry Management, Article 11. Available from: <http://faolex.fao.org/docs/pdf/cam81979.pdf>
19. Some of the most well-known voluntary carbon certification standards include the Climate, Community and Biodiversity Alliance (CCBA), the Verified Carbon Standard (VCS), and the Plan Vivo standard.
20. Governments (such as the United States) and multilateral institutions (e.g., the World Bank) are speaking now of “free prior informed consultation” processes. FPIC has been criticized on the grounds that it seeks to consult with local communities, but not to obtain their consent.
21. See, for example, the comments of Sawit Watch to Indonesia’s R-Plan to the FCPF under: http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/AMAN_on_Indonesia_R-Plan_0.pdf
22. See:
 - (a) Nepal’s Readiness Preparation Proposal (2010-2013) http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Oct2010/R-PP_Nepal_revised_October.pdf
 - (b) Cambodia’s Readiness Preparation Proposal (2011) <http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Mar2011/Cambodia%20R-PP-Final%20Track%20Change%20Version-%20March%205%2C%202011.pdf>
 - (c) Indonesia’s Readiness Plan (2009) http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Mar2010/Indonesia_Rplan_May2009_with_disclaimer.pdf
23. These include the Forestry Administration of the Royal Government of Cambodia, PACT, the Children’s Development Association, the Buddhist Monk’s Community Forest Association, Terra Global Capital, the William J. Clinton Foundation, the Technical Working Group on Forests and the Environment Cambodia, and Community Forestry International.
24. Amanda Bradley, PACT Cambodia, personal communication, 2010.
25. See: http://www.climate-standards.org/projects/files/cambodia/CCB_PDD_Oddar_Meanchey_NORMAL_RES.pdf
26. Fuelwood is traditionally burned to produce smoke to repel mosquitoes around cattle.

References

- Acharya, K. P. 2002. "Twenty-four years of community forestry in Nepal." *International Forestry Review* 4(2): 149-156.
- Adi, N. J., F. Arganata, M. Chehafudin, F. H. Fuad, S. C. A. Nugraheni, R. Sanyoto, R. Soriaga and P. Walpole. 2004. *Communities transforming forestlands*. Java, Indonesia. Community forest management trends in Southeast Asia. Bohol: Asia Forest Network.
- Agrawal, A. and E. Ostrom. 2001. "Collective action, property rights, and decentralization in resource use in India and Nepal." *Politics & Society* 29(4): 485-514. <http://www-personal.umich.edu/~arunagra/papers/Collective%20Action%20Property%20Rights%20and%20Decentralization%20in%20Resource%20Use%20in%20India%20and%20Nepal.pdf> (accessed 23 April 2012).
- Akiefnawati, R., G. B. Villamor, F. Zulfikar, I. Budisetiawan, E. Mulyoutami, A. Ayat and M. v. Noordwijk. 2010. Stewardship agreement to reduce emissions from deforestation and degradation (REDD): Lubuk Beringin's hutan desa as the first village forest in Indonesia. Working Paper 102. Bogor: World Agroforestry Centre.
- Anderson, P. 2011. *Free, Prior, and Informed Consent: Principles and approaches for policy and project development*. Bangkok: RECOFTC / GIZ. http://www.recoftc.org/site/uploads/content/pdf/FPICinREDDManual_127.pdf (accessed 20 April 2012).
- Apte, T. and N. Pathak. 2003. *Learning lessons from international forestry networks in India. Snapshots of international community forestry networks: Country and network studies*. Bogor: Center for International Forestry Research (CIFOR).
- Arnold, L. L. 2008. "Deforestation in decentralized Indonesia: What's law got do to with it?" *Law Environment and Development Journal (LEAD)* 4(2): 75-101. <http://www.lead-journal.org/content/08075.pdf> (accessed 20 April 2012).
- Barr, C., I. A. P. Resosudarmo, A. Dermawan, J. McCarthy, M. Moeliono and B. Setiono, Eds. 2006. *Decentralization of forest administration in Indonesia. Implications for forest sustainability, economic development and community livelihoods*. Bogor: Center for International Forestry Research.
- Bhattacharya, P., L. Pradhan and G. Yadav. 2010. "Joint forest management in India: Experiences of two decades." *Resources, Conservation and Recycling* 54: 469-480.
- Callister, D. J. 1999. *Corrupt and illegal activities in the forest sector: Current understandings and implications for the World Bank. Background Paper for the 2002 Forest Strategy*. Washington, D.C.: World Bank. <http://siteresources.worldbank.org/EXTFORESTS/Resources/985784-1217874560960/Callister.pdf> (accessed 23 April 2012).
- Campbell, J. Y. 2002. Differing perspectives on community forestry in Indonesia. In *Which way forward? People, forests and policy making in Indonesia*, edited by C. J. P. Colfer and I. P. Resosudarmo, pp. 110-125. Washington, D.C.: Resources for the Future.
- Chhatre, A. and A. Agrawal. 2008. "Forest commons and local enforcement." *PNAS* 105(36): 13286-13291. <http://www.pnas.org/content/105/36/13286.full.pdf+html> (accessed 23 April 2012).
- Chhatre, A. and A. Agrawal. 2009. "Trade-offs and synergies between carbon storage and livelihood benefits from forest commons." *PNAS* 106(42): 17667-17670. <http://www.pnas.org/content/106/42/17667.full.pdf+html> (accessed 23 April 2012).
- Colchester, M. 2002. *Bridging the gap: Challenges to community forestry networking in Indonesia. Snapshots of international community forestry networks: country and network studies*. Bogor: Center for International Forestry Research. http://www.cifor.org/publications/pdf_files/CF/Indonesia_CF.pdf (accessed 23 April 2012).
- Colfer, C. J. P., G. R. Dahal and M. Moeliono. 2008. Setting the stage: Money and justice in Asia-Pacific forests. In *Lessons from forest decentralization: money, justice and the quest for good governance in Asia-Pacific*, edited by C. J. P. Colfer, G. R. Dahal and D. Capistrano, pp. 1-14. London: Earthscan.
- Colfer, C. J. P. and I. A. P. Resosudarmo, Eds. 2002. *Which way forward? People, forests, and policy making in Indonesia*. Washington, D.C.: Resources for the Future.
- Dahal, G. R., J. Atkinson and J. Bampton. 2011. *Forest tenure in Asia: Status and trends*. Kuala Lumpur: EFI / RECOFTC / EU.
- Dietz, T., E. Ostrom and P. C. Stern. 2003. "The Struggle to Govern the Commons." *Science* 302(5652): 1907-1912.
- EoA. 2009. *Challenges of forest governance in Aceh. Eye on Aceh*. http://www.aceh-eye.org/data_files/english_format/ngo/ngo_eoa/ngo_eoa_2009_03_00.pdf (accessed 23 April 2012).
- Fisher, R., R. Prabhu and C. McDougall, Eds. 2007. *Adaptive collaborative management of community forests in Asia: Experiences from Nepal, Indonesia and the Philippines*. Bogor: Center for International Forestry Research (CIFOR).

- Hardin, G. 1968. "The tragedy of the commons." *Science* 162: 1243-1248.
- Hardin, R. 1982. *Collective Action*. Baltimore: Johns Hopkins University Press.
- Hartanto, H. 2007. Facilitating change from the inside: Adaptive collaborative management in the Philippines. In *Adaptive collaborative management of community forests in Asia: experiences from Nepal, Indonesia and the Philippines*, edited by R. Fisher, R. Prabhu and C. McDougall, pp. 162-207. Bogor: Center for International Forestry Research (CIFOR). <http://www.cifor.cgiar.org/nc/online-library/browse/view-publication/publication/2350.html> (accessed 24 April 2012).
- Hartanto, H., M. C. Lorenzo, C. Valmores, L.-A. Minas, E. M. Burton and R. Prabhu. 2003. *Learning together: Responding to change and complexity to improve community forests in the Philippines*. Bogor: Center for International Forestry Research.
- Heng, S. and H. Scheyvens. 2007. Forest governance in Cambodia. In *Decentralization and state-sponsored community forestry in Asia*, edited by H. Scheyvens, K. Hyakumura and Y. Seki, pp. 77-98. Hayama: Institute for Global Environmental Strategies.
- Heng, S. and S. Iida. 2002. "Community forestry in northern Cambodia: Formation process and regulations." *Kyushu Journal of Forest Research* (55): 21-26.
- Heng, S. and T. Sokhun. 2005. Cambodia community forestry 2005. In *First Regional Community Forestry Forum – Regulatory Frameworks for Community Forestry in Asia – Proceedings of a Regional Forum held in Bangkok, Thailand, August 24-25*, edited by N. O'Brien, S. Matthews and M. Nurse, pp. 37-46. Bangkok: RECOFTC.
- Innes, J., L. A. Joyce, S. Kellomäki, B. Louman, A. Ogden, J. Parrotta, I. Thompson, M. Ayres, C. Ong, H. Santoso, B. Sohngen and A. Wreford. 2009. Management for adaptation. In *Adaptation of Forests and People to Climate Change. A Global Assessment Report IUFRO World Series Volume 22*, edited by R. Seppälä, A. Buck and P. Katila, pp. 135-186. Helsinki: IUFRO. <http://www.forestadaptation2008.net/17675-022721682d6ef9e51076d5dc46577a9c9.pdf> (accessed 24 April 2012).
- Kanel, K. and B. Kandel. 2004. "Community forestry in Nepal: Achievements and challenges." *Journal of Forest and Livelihood* 4: 55-63.
- Kanel, K. R. 2007. Good forest governance in Nepal. In *Decentralization and state-sponsored community forestry in Asia*, edited by H. Scheyvens, K. Hyakumura and Y. Seki, pp. 57-74. Hayama: Institute for Global Environmental Strategies.
- Kapoor, I. 2001. "Towards participatory environmental management?" *Journal of Environmental Management* 63(3): 269-279. <http://www.sciencedirect.com/science/article/pii/S0301479701904785> (accessed 24 April 2012).
- Karky, B. and G. Rasul. 2010. The cost to communities in Nepal of participating in REDD+. In *Community forest monitoring for the carbon market - Opportunities under REDD*, edited by M. Skutsch, pp. 107-117. London-Washington, D.C.: Earthscan.
- Karmacharya, M., B. Karna and E. Ostrom. 2003. "Rules, incentives and enforcement: Livelihood strategies of community forestry and leasehold forestry users in Nepal Paper." Presented at The International Conference on Rural Livelihoods, Forests and Biodiversity. Bonn, Germany. Center for International Forestry Research. http://www.cifor.org/publications/corporate/cd-roms/bonn-proc/pdfs/papers/T7_FINAL_Karmacharya.pdf (accessed...).
- Kleden, E. O., L. Chidley and Y. Indradi, Eds. 2009. *Forests for the future: Indigenous forest management in a changing world*. Jakarta, Indonesia / Cumbria, England: AMAN-DTE.
- Komarudin, H., Y. Siagian and C. Colfer. 2008. Collective action to secure property rights for the poor. A case study in Jambi province, Indonesia. CAPRI Working Paper No. 90. Washington D.C.: CGIAR.
- Kothari, A., N. Pathak and A. Bose. 2011a. Forests, rights and conservation: FRA Act 2006, India. In *Critical review of selected forest-related regulatory initiatives: Applying a rights perspective*, edited by H. Scheyvens, pp. 19-50. Hayama: Institute for Global Environmental Strategies.
- Kothari, A., N. Pathak and A. B. Kalpavriksh. 2011b. Forests, rights and conservation: FRA Act 2006, India. In *Critical review of selected forest-related regulatory initiatives: Applying a rights perspective*, edited by H. Scheyvens, pp. 19-50. Hayama: Institute for Global Environmental Strategies.
- Kusumanto, Y. and M. T. Sirait. 2000. Community participation in forest resource management in Indonesia: Policies, practices, constraints and opportunity. Southeast Asia Policy Research Working Paper No. 28. Bogor: ICRAF SE-Asia.
- Mahanty, S., J. Gronow, M. Nurse and Y. Malla. 2006. "Reducing poverty through community based forest management in Asia." *Journal of Forest and Livelihood* 5(1): 78-89.
- Malla, Y. B. 2001. "Changing policies and the persistence of patron-client relations in Nepal: Stakeholders' responses to changes in forest policies." *Environmental History* 2: 287-307.
- McCarthy, J. F. 2000. "The changing regime: Forest property and *reformasi* in Indonesia." *Development and Change* 31: 91-129.

- McDougall, C., H. Ojha, M. R. Banjade, B. H. Pandit, T. Bhattarai, M. R. Maharjan and S. Rana. 2008. *Forests of learning: Experiences from research on an Adaptive Collaborative Approach to community forestry in Nepal*. Experiences from research on an Adaptive Collaborative Approach to community forestry in Nepal. Bogor: Center for International Forestry Research (CIFOR).
- McDougall, C., H. Ojha, R. K. Pandey, M. R. Banjade and B. H. Pandit. 2007. Enhancing adaptiveness and collaboration in community forestry in Nepal: reflections from participatory action research. In *Adaptive collaborative management of community forests in Asia: experiences from Nepal, Indonesia and the Philippines*, edited by R. Fisher, R. Prabhu and C. McDougall, pp. 52-92. Bogor: Center for International Forestry Research (CIFOR). <http://www.cifor.cgiar.org/nc/online-library/browse/view-publication/publication/2350.html> (accessed 24 April 2012).
- Mittra, B. and P. Bhattacharya. 2008. Institutional issues in community forestry under self-initiated forest protection systems in India. In *Joint Forest Management in India. Vol. II*, edited by P. Bhattacharya, A. K. Kandy and K. Krishna, pp. 387-428. Jaipur: Avishakar Publishers, Distributors.
- Nayak, P. N. 2006. Politics of Co-optation: Self-organized Community Forest Management and Joint Forest Management in Orissa, India. Natural Resources Institute. University of Manitoba. Canada.
- Nguyen, T. Q., T. N. Tran and T. H. Hoang. 2008. "Traditional versus new forms of community forest management in Vietnam: Can they contribute to alleviate poverty?" Presented at the 12th Biennial Conference of the International Association for the Study of Commons (IASC) Cheltenham, UK.
- Nguyen, T. Q., T. N. Tran and T. H. Hoang. 2009. Community forestry and poverty alleviation: A synthesis of project findings from field activities. Hanoi: Forest Governance Learning Group Vietnam.
- Noordwijk, M. v., S. Suyanto, S. Budidarsono, N. Sakuntaladewi, J. M. Roshetko, H. L. Tata, G. Galudra and C. Fay. 2007. Is Hutan Tanaman Rakyat a new paradigm in community based tree planting in Indonesia? Working Paper. Bogor: ICRAF, SE-Asia.
- Ojha, H. R. 2009. Community Forestry in Nepal. A Policy Innovation for Local Livelihoods. IFPRI Discussion Paper 00913. Washington, D.C.: International Food Policy Research Institute (IFPRI).
- Ostrom, E. 1990. *Governing the Commons. The evolution of institutions for collective action*. Cambridge: Cambridge University Press.
- Ostrom, E. 1999. Self-governance and forest resources. CIFOR Occasional Paper No. 20. Bogor: Center for International Forestry Research. http://www.cifor.cgiar.org/publications/pdf_files/OccPapers/OP-20.pdf (accessed 23 April 2012).
- Ostrom, E. 2009. "A general framework for analyzing sustainability of social-ecological systems." *Science* 325(5939): 419-422.
- Pai, R. and S. Datta, Eds. 2006. *Measuring milestones*. Proceedings of the National Workshop on Joint Forest Management (JFM). October 17. New Delhi: Ministry of Environment and Forests and Winrock International India.
- Pathak, N. and A. Kothari. 2009. Indigenous and community conserved areas: The legal framework in India. IUCN-EPLP No. 81. Gland: IUCN.
- Pathak, N. and A. Kothari. 2010. Indigenous and community conserved areas: The legal framework in India. IUCN-EPLP No. 81. Gland: IUCN.
- Poffenberger, M., Ed. 1999. *Communities and forest management in Southeast Asia*. Regional profile of the Working Group on Community Involvement in Forest Management. Gland: IUCN.
- Poffenberger, M. 2006. "People in the forest: community forestry experiences from Southeast Asia." *International Journal of Environment and Sustainable Development* 5(1): 57.
- Pulhin, J. M., M. A. M. Ramirez and P. M. Pulhin. 2007. Forest governance in the Philippines: The evolution of community-based forest management. In *Decentralization and state-sponsored community forestry in Asia*, edited by H. Scheyvens, K. Hyakumura and Y. Seki, pp. 99-119. Hayama: Institute for Global Environmental Strategies.
- Rebugio, L. L., A. P. Carandang, J. T. Dizon, J. M. Pulhin, L. D. Camacho, D. K. Lee and E. O. Peralta. 2010. Promoting sustainable forest management through community forestry in the Philippines. In *Forests and society – Responding to global drivers of change*, edited by G. Mery, P. Katila, G. Galloway, R. I. Alfaro, M. Kanninen, M. Lobovikov and J. Varjo, pp. 355-368. IUFRO World Series Vol. 25. Vantaa: International Union of Forest Research Organizations (IUFRO).
- Roberts, G., J. Parrotta and A. Wreford. 2009. Current adaptation measures and policies. In *Adaptation of Forests and People to Climate Change. A Global Assessment Report*, edited by R. Seppälä, A. Buck and P. Katila, pp. 123-134. IUFRO World Series Volume 22. Helsinki: International Union of Forest Research Organizations (IUFRO).
- Safitri, M. A. 2006. "Change without reform? Community forestry in decentralizing Indonesia." Presented at the 11th IASCP Conference. Bali.

- Safitri, M. A. and R. E. Bosko. 2002. Indigenous peoples/ethnic minorities and poverty reduction: Indonesia. Manila: Asian Development Bank.
- Saigal, S., M. Borgoyary and P. Lal. 2007. Forest governance and participatory forestry in India. In *Decentralization and state-sponsored community forestry in Asia*, edited by H. Scheyvens, K. Hyakumura and Y. Seki, pp. 33-56. Hayama: Institute for Global Environmental Strategies.
- Saigal, S., G. R. Dahal and B. Vira. 2008. Cooperation in forestry: Analysis of forestry cooperatives in Rajasthan, India. CIFOR-RRI Project on Improving Equity and Livelihoods in Community Forestry. CIFOR-RRI.
- Sam, D. D., H. L. Son and L. Q. Trung. 2007. Forest governance in Vietnam. In *Decentralization and state-sponsored community forestry in Asia*, edited by H. Scheyvens, K. Hyakumura and Y. Seki, pp. 139-159. Hayama: Institute for Global Environmental Strategies.
- Sam, T. and G. Shepherd. 2011. Community forest management. Background Paper for the United Nations Forum on Forests Secretariat UNFF9: "Forests for People, Livelihoods and Poverty Eradication." New York: IUCN.
- Sarin, M. 2003. Devolution as a threat to democratic decision making in forestry? Findings from three states in India. Working Paper 197. London: Overseas Development Institute.
- Sarin, M. 2008. Moving beyond the present JFM framework. Need to recognize the plurality of institutions and community rights for making state community collaboration sustainable. In *Joint Forest Management in India, Vol. II*, edited by P. Bhattacharya, A. K. Kandya and K. Krishna, pp. 387-428. Jaipur: Avishakar Publishers, Distributors.
- Scheyvens, H., K. Hyakumura and Y. Seki, Eds. 2007. *Decentralization and state-sponsored community forestry in Asia*. Hayama: Institute for Global Environmental Strategies.
- Sikor, T. 1998. Forest policy reform: From state to household forestry. In *Stewards of Vietnam's upland forests: A collaborative study by the Asia Forest Network and the Forest Inventory and Planning Institute*, edited by M. Poffenberger, pp. 18-38. Research Network Report Number 10. Manila: Asia Forest Network.
- Skutsch, M., Ed. 2010. *Community forest monitoring for the carbon market - Opportunities under REDD*. London-Washington, D.C.: Earthscan.
- Skutsch, M. and M. McCall. 2010. Why community forest monitoring? In *Community forest monitoring for the carbon market - Opportunities under REDD*, edited by M. Skutsch, pp. 3-15. London: Earthscan.
- Sokhun, T., S. Heng and L. Sethaphal. 2005. Institutional arrangements for community forestry in Cambodia. In *First Regional Community Forestry Forum – Regulatory Frameworks for Community Forestry in Asia – Proceedings of a Regional Forum held in Bangkok, Thailand, August 24-25*, edited by N. O'Brien, S. Matthews and M. Nurse, pp. 153-158. Bangkok: RECOFTC.
- Sunderlin, W. 2004. "Community forestry and poverty alleviation in Cambodia, Lao-PDR, and Vietnam: An Agenda for Research." Presented at Regional Consultation Workshop for ADB-RETA 6115: "Poverty Reduction in Upland Communities in the Mekong Region through Improved Community and Industrial Forestry". Bangkok, Thailand.
- Sunderlin, W. D. 2006. "Poverty alleviation through community forestry in Cambodia, Laos, and Vietnam: An assessment of the potential." *Forest Policy and Economics* 8(4): 386-396.
- Sunderlin, W. D., J. Hatcher and M. Liddle. 2008. From exclusion to ownership? Challenges and opportunities in advancing forest tenure reform. Washington, D.C.: Rights and Resources Initiative. http://www.rightsandresources.org/documents/files/doc_736.pdf (accessed 23 April 2012).
- UN-REDD. 2009. UN-REDD Programme operational guidance: Engagement of indigenous & other forest dependent communities. UN-REDD Programme. <http://www.un-redd.org/Portals/15/documents/events/20090309Panama/Documents/UN%20REDD%20IP%20Guidelines%2023Mar09.pdf> (accessed 23 April 2012).
- UNEP. 2011. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. United Nations Environment Programme.
- UNFCCC. 1992. Framework Convention on Climate Change. United Framework Convention on Climate Change. Rio de Janeiro.
- UNFCCC. 2010. 1/CP.16. Outcome of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention. <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2> (accessed 23 April 2012).
- Vemuri, A. 2008. "Joint Forest management in India: An Unavoidable and Conflicting Common Property Regime in Natural Resource Management." *Journal of Development and Social Transformation* 5: 81-90.
- Walpole, P., K. Kubo and R. Soriaga. 2009. Where is the future for cultures and forests? Indigenous Peoples and Forest Management in 2020. Asia-Pacific forestry sector outlook study II. Working Paper No. APFSOS II/WP/2009/23. Bangkok: Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific.

- Walpole, P. W. and D. Annawi. 2011. Where are indigenous peoples going? In *Critical review of selected forest-related regulatory initiatives: Applying a rights perspective*, edited by H. Scheyvens, pp. 83-115. Hayama: Institute for Global Environmental Strategies.
- Wang, S. and C. G. van Kooten. 2001. *Forestry and the New Institutional Economics. An application of contract theory to forest silvicultural investment*. Hampshire: Ashgate.
- Wode, B. and B. Huy. 2009. Study on state of the art of community forestry in Vietnam. GTZ project on Sustainable Management of Natural Resources in Central Vietnam. The GTZ project on Rural Development in Dak Lak. Eschborn: GTZ.
- Wollemberg, E. and H. Kartodihardjo. 2002. Devolution in Indonesia's new Forestry Law. In *Which way forward? People, forests and policy making in Indonesia*, edited by C. J. P. Colfer and I. P. Resosudarmo, pp. 81-109. Washington, D.C.: Resources for the Future.
- Zahabu, E. and R. Malimbwi. 2010. The potential of community forest management under REDD+ for achieving MDG goals in Tanzania. In *Community forest monitoring for the carbon market - Opportunities under REDD*, edited by M. Skutsch, pp. 134-147. London-Washington, D.C.: Earthscan.