First Community Forestry International Workshop
"Thinking globally — acting locally: community forestry in the international arena"
Pokhara, Nepal, September 15-18, 2009

Theme 2: Community forestry, climate change and environmental services

Community forestry between local autonomy and global encapsulation: *quo vadis* with environmental and climate change payments?

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Summary
Since the inception of community forestry in the late 1970s, a gradual evolution took place in respect to both basic commitments and specific types of community forestry. Initially attention focused on small-scale forest management systems by rural communities, basic forest related needs and devolution of state authority regarding forest use and management. But gradually attention also became focused on larger-scale forest management on ancestral lands of indigenous people, commercial production, and community forest enterprise development. This evolution resulted in a changing perspective of community forestry as a more or less autonomous activity to community forestry as being embedded in larger social and economic networks. As a result different types of community forestry emerged. Due to the emergence of new global schemes for payments of environmental services (PES) the trend towards adjusting community forestry to external standards is further strengthened. Initially PES schemes were based on voluntary partnership arrangements involving local communities, socially-responsible companies, NGOs and development organizations, and certification bodies. The experiences in developing community forestry certification serves as a good example about the possibilities and limitations of schemes relating community forestry to global standards for forest management. It was found necessary to adjust the global standards to the community forestry conditions. This process involved a demand for adding more specific social standards for community forestry organisations, and a demand for simplification of procedures and minimization of costs for community forestry schemes. In order to effectuate these demands the certification schemes evolved from a standard setting and control system to a forest governance system. In the recent global policy on climate change payments national governments are proposed to play a major role for monitoring adherence to global standards and for mediating international payments. This involves a partial redirection of the earlier forest decentralization policy stimulating community forestry. In the implementation of this policy the lessons learned about the need to develop appropriate governance arrangements for relating global standard to community conditions should not be forgotten. Important issues to consider are the need for proper political representation of community forestry umbrella organisations, the need for developing partnerships between communities and both market and civil society organisations, and the need to give attention to the variety of community forestry types.

1. Introduction

Since the inception of community forestry in the late 1970s, a gradual evolution took place in respect to both basic commitments and specific types of community forestry. This development included a gradual change in perspective of community forestry concerning a more or less autonomous activity to a perspective of community forestry as being embedded in larger political and economic networks. This last perspective is gaining prevalence as a result of the emergence of payment schemes for environmental services (PES). Especially the recent attention to forest conservation as a means to mitigate climate change resulting from increasing carbon emissions has resulted in new efforts to formulate global standards for forest carbon management and climate change payments. This paper discusses the repercussions of the new developments regarding environmental and climate change payments on the nature and organisation of community forestry. It is organized as follows. First in Section 2 and 3 the historical development of community forestry are reviewed. Section 2 summarizes the evolution in community forestry, and Section 3 discusses the increasing significance of different types of environmental payments in community forestry. In order to enable such payments several global standards for forest management have been formulated. In Sections 4 and 5 the increasing significance of such global standards impacting on community forestry are elaborated. Section 4 describes the history of evolving standards for certification of community forestry. These experiences form the basis for an assessment of the scope for climate change payments in community forestry in Section 5.

2. The evolution in community forestry

Since the inception of community forestry in the 1970s, a gradual evolution in thinking with regard to what is involved in this forest management regime took place. Two major trends may be distinguished, i.e. a gradual change in thinking regarding the basic commitments for stimulating community forestry development, and a gradual diversification in community forestry regimes.

2.1 Changing commitments for developing community forestry

When in the late 1970s the concepts of community forestry was identified, at first it was considered that a dual forest economy should be developed in which the prevailing forest management regimes focusing on national interests and macro-economy growth were supplemented by forest management regimes focusing on basic needs, equity, and local participation. With the increasing acceptance and development of community forestry, the emphasis shifted towards the need to develop better interfaces between national, and increasingly also global forest-related interests and local forest-related interest. Hence, during the past 40 years of community development, several changes took place in respect to the perspectives underlying this form of forest management (Arnold, 2001; Wiersum, 1999; Scherr et al., 2003; Wiersum et al., 2004):

- The perspective of community forestry development involving the creation of a dual

forest economy with co-existence of a modern and traditional forest sector changed to a perspective of community forestry involving a gradual incorporation of traditional local systems in the dominant modern sector.

- The perspective of community forestry as basically involving an autonomous local organization with own decision-making and control abilities evolved to a perspective of a local forestry organizations becoming embedded in global/national institutional frameworks for forest related decision-making and control.
- The perspective of community forestry as basically involving local forest-related needs as well as indigenous knowledge and practices changed to a perspective of local forestry practices addressing national and global forest-related needs and incorporating professional forestry skills for dealing with (inter)national standards and markets.

As a result of these changing perspectives, in the evolution of community forestry four, partly overlapping, phases in thinking about its scope and institutional setting may be distinguished:

1. *Forest conservation phase* focusing on the scope of local communities acting as social fences around state-controlled forest production and conservation areas. For instance, in the initial Indian policy the main objective for stimulating community forestry was 'to meet the needs for forest products for rural people in full from readily accessible community lands, and thereby lighten the burden on industrial production forestry' (GOI, 1976 in Chambers et al., 1989). This approach focused mainly on teaching local communities the benefits of engaging in down-scaled professional forest management practices.
2. *Democratization and empowerment phase* focusing on the specific forest-related needs and activities of local communities as well as rights of indigenous peoples to their ancestral forest lands. Attention focused on the role of forests in the livelihood coping strategies of local communities in respect to supplying subsistence needs as well as providing safety nets in case of socio-economic emergencies. Moreover, the need for effective processes of community-level decision-making and control over forest resources was emphasized, notably in the form of common-property resource management.
3. *Joint and collaborative forest management phase* focusing on national-level cooperation and benefit-sharing between state/bureaucratic forest management organizations and local communities. Attention focused on the adaptation of professional forest management regimes by incorporating community participation as a means to contribute to the dual objectives of rehabilitation of degraded forests and poverty alleviation. Also the importance of interactive decision-making between local communities and professional forestry organizations received increasing attention.
4. *Phase of incorporation of community forestry in globalizing economy networks* focusing on the potential of community forestry to contribute to poverty alleviation and income earning. This was to be accomplished by stimulating community forest enterprise development and assisting communities to operate on the (inter)national market for commercial forest products and environmental services. In order to operate at these levels, the forest enterprises need to adhere to (inter)national standards on

management and product quality.

Hence, as illustrated in Figure 1, during the evolution of community forestry important changes in respect to the commitments to community forestry development and mobilization of local and external actors respectively took place.

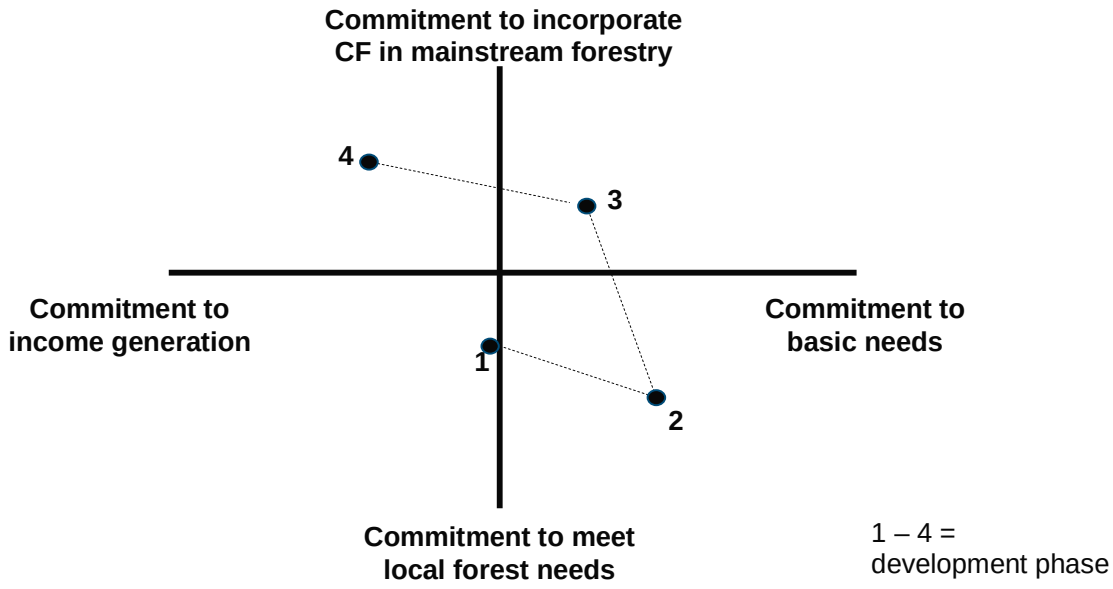

Figure 1 Pathway of community forestry development

2.2 Emergence of different patterns of community forestry

The evolution in community forestry did not only concern dynamics in commitments to its development, but also a diversification in types of community forestry. During the initial phases of community forestry development, the main focus was on forest fringe communities. The programmes focused on the need to redress the pressures exerted by local communities on forests by stimulating production of forest-related needs of these communities on village lands. This forest protection approach was gradually adapted by the notion of local communities forming a social fence around forest reserves and contributing to rehabilitation of degraded lands. In Latin America attention was also given to the need to maintain forest plots in the forest frontier areas settled by immigrants. During the second phase of democratisation and empowerment attention became more focused on the need to decentralize and devolve state forest policies and encourage more local autonomy in forest management. Within this approach, attention focused increasingly on forest dwelling indigenous communities. In the 1990s a quickly-growing political recognition of the need to recognize the ancestral rights of indigenous peoples

developed, and in many countries new legislation was enacted for returning ownership and management responsibilities over forest to indigenous people. In contrast to the relatively small forest areas involved in the early community forestry schemes, these schemes involved extensive forest areas. Often this concerned old-growth forests rather than degraded forests, plantations or agro-forestry systems prevailing in the community forestry systems of forest fringe communities. Thus, gradually different types of community forestry schemes emerged, see Table 1.

Table 1 Diversification in different types of community forestry (after Molnar et al., 2004)

Type	Forest characteristics	Forest size and management system
Large areas of natural habitat with indigenous and traditional stewards	Large areas of natural forests with formally recognized ancestral land rights	Forest plots often over 1000 ha Communal management
Forested landscape mosaics managed by communities	Fragmented forested landscape with different types of farm forestry (forest gardens, agroforestry systems, tree plantations) supplementing agricultural cultivation and/or animal husbandry	Small farm forest plots (10-50 ha) mostly privately or cooperatively managed Communal/JFM forest plots up to some 100 ha
Forests on the agricultural frontier	Remaining patches of natural and secondary forest vegetation in and around recently settled migration areas	Legal requirements for forest conservation in settlement areas (e.g. 50-80% of 100 ha allotted lands) After forest reclamation gradually emerging private management
Intensively managed farm and agroforests	Newly established and often specialized tree plantations aimed at specialised production (timber, NTFP) or conservation services (shelterbelts, etc)	Variable size mostly in range 10-100 ha Either private management or management by decentralized public authority

2.3 Conclusion

During the evolution of community forestry two major developments took place. In the first place, the original focus on the need to fulfil forest-related basic needs gradually evolved to incorporate income earning opportunities through commercial production.

Initially, this commercial approach focused on the sale of timber and non-timber forest products. It was further strengthened with the emergence of payment schemes for environmental payments. As a result of the increased commercialisation, partnerships play an increasing role in community forestry. These developments will be elaborated in the next sections. In the second place, a gradual diversification in different types of community forestry emerged. As will be discussed in Section 5 these different types vary in scope for incorporation in global schemes for environmental payments.

3. Payments of environmental services: continuing evolution in community forestry

When in the 1990s the idea of payments of environmental services emerged (Landell-Mills and Porras, 2002; Wunder, 2005), this option was quickly embraced as a promising way forward for stimulating a combined conservation and development approach in community forestry. But the development also raised new questions about how communities can effectively deal with the norms and regulations of external forest users paying for the services and of the intermediary organizations regulating the flow of payments. It strengthened the need to consider how to combine the development of effective community forest management with community forest enterprise development, and how to improve the ability of local communities to deal with markets and their regulatory institutions (Scherr et al., 2003). In order to understand these new developments, the following two issues need consideration:

- What type of environmental payments exist and how are they organized?
- What experiences have been gained with different payment schemes?

3.1 Diversity in payments for environmental services

According to the 2005 Millennium Ecosystem Assessment (2005) four major categories of environmental services can be recognized, i.e. provisioning services (supply of goods), regulatory services, supporting services and cultural services. For each of these categories specific types of payment schemes have been developed (Table 2). The first payment schemes regarded the notion of increased prices for timber (and other forest product) with a certified origin in sustainable managed forests, and ecotourism payments for enjoyment of the relations between nature and culture in traditional societies. Somewhat later also water payments schemes for provision of high quality and optimal quantity water to downstream users (e.g. Porras et al., 2008) and different schemes for payments for biodiversity (e.g. Ferraro and Kiss, 2002) were developed. More recent are the climate change or carbon payment schemes.

Table 2 Different types of payments for environmental services

Main category of environmental services	Main types of remunerated products or services	Main payment system for these products or services
Provisioning services	Timber production Non-timber product provision Provision of hunting resources	Timber sales NTFP sales Payments for trophy hunting
Regulatory services	Regulation of water quantity and quality Erosion control Carbon sequestration	Water payments by consumer groups or water enterprises Incorporated in water payments Different types of climate change payments
Supporting services	Biodiversity conservation	Schemes for biodiversity payments
Cultural services	Aesthetic and recreation services	Tourist payments for tourism facilities

The different schemes do not only differ in respect to what type of environmental service is involved, but also in respect to how the payments are organised (Table 3). Many of the first generation schemes were of an experimental nature and involved voluntary partnerships either between environmentally-motivated consumer groups and forest managers, or between socially-responsible enterprises and forest managers. These schemes were normally facilitated by NGOs or development organisations. They fitted well within the prevailing trend towards decentralisation and privatization in forest policy and management. However, with the advent of climate payment schemes a new trend emerged. The first schemes were still of a voluntary nature. But as a result of global climate policies gradually more formal payment schemes developed. Under the Kyoto protocol the Clean Development Mechanism (CDM) was formulated for forming official partnerships for funding reforestation as a means of sequestering carbon dioxide. However, the international standards for setting up such partnerships appeared to be very bureaucratic and cumbersome, and very few CDM forest partnerships were formed (Robleda and Ma, 2008). Recently, attention has turned to the scope for incorporation of community forestry within the newly proposed REDD (Reducing Emissions from Avoiding Deforestation and Forest Degradation) policy for climate regulation (e.g. Humphreys, 2008). In order to redress the difficulties experienced with the formalization of CDM partnerships, it was decided that the REDD payments should be arranged through national governments rather than through partnership projects. Thus, the introduction of the REDD policy involves a break with the process of decentralization in forest policy, and renewed attention to governments policy arrangements.

Table 3 Different partnership arrangements for PES payments

	Voluntary payment schemes by socially-responsible enterprises and/or consumers	Formal payments through bureaucratically approved projects	Formal payments through government agencies
Biodiversity payments	Schemes for biodiversity certification		
Amenity payments	Ecotourism payments		
Water payments	Local/regional schemes between water users and forest owners		
Climate payments	Tree for travel etc	CDM	REDD

3.2 Experiences with different types of PES payments

Many politicians, environmentalists and development organizations expect that the upcoming REDD policy will significantly increase income earning in community forestry, They hope it will provides a win-win situation by both addressing climate change concerns and by increasing funds for effective forestry conservation as well as poverty alleviation in the communities engaged in this activity (e.g. Klooster et al., 2000; Smith and Scherr, 2003). It seems questionable whether these hopes are fully realistic. Two major issues require further attention:

- The need to rethink institutional arrangements for effective linking community forestry to PES payments.
- The need to learn from early (experimental) schemes for community-based PES payments.

Rethinking institutional arrangements in community forestry
As discussed above, there exist different perspectives on the rational of community forestry. In many community forestry development schemes the perspectives from the development phase 2 on empowerment and local autonomy are still lingering on. Consequently, the need for new institutional arrangements for adjusting to the trends towards commercialization and incorporation of community forestry in external networks are often still not sufficiently recognized. This results in contrasting views on the institutional characteristics of community forestry (Table 4). Hence, the development of PES schemes requires a further rethinking of optimal institutional arrangements in community forestry.

Table 4 Contrasting views on institutional characteristics of community forestry development

Dominant perspectives from community forestry development phase 2	Evolving perspectives in response to environmental payment schemes
Devolution of forest management and decision-making responsibilities to local communities	Incorporation of local communities in international networks for forest payments
Diversification in forest management by recognition of traditional knowledge and local practices regarding forest use and management	Modernization of community forest management by fulfilling international standards
Emphasis on importance of recognising local norms for forest management for subsistence needs	Emphasis on importance of international norms for forest management and commercial relations
Focus on equitable sharing of forest benefits at local level	Focus on equitable distribution of international payments
Community forestry development as ingredient in process of forest policy decentralisation	Fulfilment of requirements regarding international standards and money transfers requires strong and accountable intermediate organisations
NGOs as temporary facilitators engaged in a time-bounded development process	Civil society organisations as a long-term partner in multi-stakeholder partnerships

Learning from experiences of earlier PES schemes

The need to reconsider the institutional arrangements for community forestry in the context of PES payments was demonstrated by the results of the initial PES schemes. These demonstrated several major difficulties in their implementation:

- Lack of accomplishment of many first generation community-based PES schemes. These failures are often due to non-realistic expectations on the social and technical issues involved and to high transaction costs (Skutsch, 2005; Porras et al., 2008; De Pourq et al., 2009).
- Hazard of capture of the expected high incomes by external organizations or local individuals which are more skilled at operating on international markets (Platteau, 2006; Nelson and Agrawal, 2008).
- Lack of understanding of how community-focused PES schemes can most effectively be incorporated in global governance and marketing networks (Corbera, 2009). Community-forestry focused climate payments require a change from the presently mostly prevailing strategy of stimulating community forestry by temporary and ad-hoc development alliances for assisting local communities to become more self-reliant, to a strategy of formation of permanent partnerships between community forestry organizations, government organizations, environmental agencies and market organizations. Local communities should not only be empowered to manage their forest sustainably, but also to operate as a full and equal partner in global economic and policy networks.

Regarding this last aspect, Ross-Tonen et al. (2008) identified the following factors to be considered in the formation of partnerships linking community forestry with external stakeholders:

- Fairly negotiated forest governance and partnership objectives
- Active involvement of the public sector acting as impartial brokers
- Active involvement of civil society coalitions acting as watchdogs, awareness-raisers and facilitators
- Equitable and cost-effective institutional arrangements
- Sufficient and equitably shared benefits for all parties involved
- Addressing socioeconomic and political drawback, notably with respect to detrimental policies and practices.

3.3 Conclusion

To come to a realistic assessment on the scope of payments for environmental services in community forestry two contrasting views on community forestry schemes need critical scrutiny:

- The contrasting perspectives on community forestry as concerning a basically autonomous undertaking based on local forest-related needs and values *versus* community forestry providing income earning opportunities by fulfilling global forest-related demands and standards.
- The degree to which community forestry development needs to be focused on the traditional objective of stimulating participatory forest management or on newly emerging demands for community forest enterprise development.

In developing strategies critical attention should be given to the accomplishments of earlier PES schemes in respect their impact on community forestry. Special attention should be given to the various factors enabling and limiting the access of community forestry to commercial schemes. The experiences of the earlier PES schemes provide a good base for social learning on the need for further evolution in community forestry in order to profit from the new policies on environmental payments. This will be further illustrated in the next section elaborating the experiences with community forestry certification.

4. Experiences with developing community forestry certification

4.1 Forest certification: dynamics in global standards for forest provisioning services

Forest certification started in the 1990s as a tool to stimulate that timber production takes place in sustainably managed forests (Bass, 2004); later it was extended to also include non-timber forest products (Shanley et al., 2002; Wiersum et al., 2008). Although forest certification is not usually characterized as a form of PES, as discussed above, environmental services do not only involve regulatory and supporting services, but also the provision of material goods. Moreover, forest certification does not concern product

quality, but rather the sustaining of production capacity and ecological integrity of the forests. Hence, the ecological concerns underlying forest certification are similar to the concerns underlying PES schemes regarding regulatory and supporting services. Moreover, the standards for forest certification also involve the issue of socially-responsibility of management organisation (Bass, 2004). In this context, it is questioned whether not more attention should be given to equitable distribution of benefits to different categories of producers (McQueen et al., 2008).

The FSC certification scheme and its underlying multi-stakeholder governance system for standard setting and control, is widely regarded as the most advanced example of how to formulate and implement a global system for quality control on forest management (Tollefson et al., 2008; Eden, 2009). The certification was originally based on the assumption that one set of standards could be applied to all types of forests and forest producers, with standards being based on scientific principles of forest management, with a strong emphasis on records and clear business strategy (Bass, 2004). The initial certification efforts focused on industrial timber production schemes and did not consider the specific features of small-scale community forestry schemes. However, around 2000 both FSC and community forestry development organisations started to give attention to the scope of community forestry certification (Molnar, 2003; Cashore et al., 2006). Due to the relatively long history of community forestry certification in comparison to other PES schemes, including conscious efforts to adapt assumed universal standards to community forestry conditions, the FSC experiences with community-focused certification offer an excellent opportunity for assessing the challenges involved in developing schemes for community-focused PES schemes.

4.2 Multiple expectations on benefits of community forestry certification

Since the start of the community forestry certification by FSC, there has been a gradually increasing number of certified community forestry enterprises. In 2008 there were 120 FSC certified community forest enterprises covering a total forest area of 103 million hectares (FSC, 2008). These community enterprises form 13% of all certified forest enterprises, but the area represents only 3.7% of all certified forest areas. In many cases it appeared that the locally experienced benefits from certification differed significantly from the early statements and assumptions of the organizations that stimulated community forest certification (Table 5). These experiences indicate that the application of global forest management standards at the level of community forestry should not be considered as a linear process of transfer of global norms to local communities, but rather as a social learning process, in which the interpretation and understanding of the scope of the standards get adjusted.

Table 5. Main differences between assumed and actual experienced results of certification of community forestry organisations (CFO)

Main expected/ascribed benefits of CFO certification	**Main experiences with actual CFO certification**
Certification enables indigenous groups to be recognized as legitimate forest owners and users	• Certification may be used as tool by indigenous people to gain legal forest ownership rights rather than as a means to access high-quality timber markets. • Little attention is given in certification of indigenous forest enterprises to the fate of migrant people.
Certification can contribute towards a certain extent to strengthen community organisation processes	• Certification standards are often incompatible with locally developed management practices and customary laws. • Certification requires high levels of technical expertise in both managing both forests and forest enterprises and dealing with certification bodies. This may result in socio-economic stratification and specialization, lack of internalisation of certification requirements within community organisations, and even elite capture of certification benefits • Certification of CFOs is not possible without support from development organisations, assisting with negotiation with marketing organisations and certification bodies. • CFOs face the risk of donor dependence, may be subject to additional donor standards (e.g. in respect of gender issues), and to negative impact of withdrawal of donors acting as temporary facilitator • Certification is considered as a 'price' for being able to meet international requirements rather than as a tool for sustainable forest management

Certification results in price premiums	• Certified CFOs rarely obtain price premiums • CFOs experience many difficulties to access high-value niche markets that only exist in a small number of developed countries • The demand of international markets for quality products, regular supply and competitive prices are too high
Certification allows improved market access and/or share	• Costs of certification are often too high and it is very difficult for CFO to enter and compete in certified wood markets. • Direct and indirect costs for certification may exceed returns

Based on Molnar, 2003; Humphries and Kainer, 2006; De Pourq et al., 2009.

4.3 Community forest certification: adding new requirements or simplifying requirements?

As a result of the experiences gained with community forestry certification, many proposals have been made to adjust the certification standards to the specific conditions of community forestry (Molnar, 2003). This social learning and adjustment process involved two contrasting developments. On the one hand there was a strong demand for simplification of procedures and minimization of costs for small-scale enterprises including community-based enterprises developed. But on the other hand, there was a demand for added social objectives and a rising bar for social criteria. Moreover, there was identified a need that auditors were better trained to appreciate the special conditions of community forestry. Table 6 summarized the main adjustments made during the process of social learning.

The process of social learning was greatly facilitated by the FSC governance system. This system is based on a negotiation and decision-making structure involving three (recently changed to four) chambers with representatives of the forest product manufacturing and trade, forest conservation organisations, social development organisations, and indigenous peoples organisations respectively. This multi-stakeholder governance systems does not only operate at the global level where generic standards in the form of principles, criteria and indicators for sustainable forest management are formulated , but also at national level, where the global standards are further adapted in a set of country (or regional) specific standards (Tollefson et al., 2008; Eden, 2009).

Table 6 Development pathway of certification of community forestry

Main development	Basic consideration	Adjusted standard
Initial phase of forest certification: no attention to special position of community forestry	One set of standards Output related standards rather than process related standards Expected quality standards rather than gradually emerging standards	
Identification of need to simplify standards to community forest management conditions	Decrease transaction costs for smallholders	Standards for group certification
	Adjust standards to specific nature of community forestry	SLIMF (Small and Low Intensity Managed Forests)
Identification of need to diversify objectives	Development NGOs add standards on community organisation and gender concerns	Mixed standards of different origins for certification and community development
	Formal incorporation of standard for fair benefit sharing	FSC – Fair trade dual certification
	Identification of the need for a specific development approach	Modular development path approach being considered, including capacity building
Identification of need to train auditors to community forestry conditions	Need to acquaint auditors with specific nature of and standards for community forestry	IMAFLOR/Brazil training courses

4.4 Conclusion

As demonstrated by the history of community forestry certification, many of the original expectations regarding the benefits of this approach, were not fulfilled. Within FSC, this recognition resulted in conscious efforts to further adjust community forestry certification. These efforts basically involved two parallel institutional pathways:

- A process of reconsideration of the international standards to better suit the conditions of community forestry. As a result, the globalstandards based on supposedly uniform management requirements are gradually becoming diversified and adapted to specific management conditions.
- A process of change from certification as a standard setting and control system to certification as a forest governance system. Standard setting is not considered as a

'once and for all' activity negotiated at international level, but rather as a continuing process of negotiation between different stakeholders with increasing attention to developing country and management system specific standards.

5. What scope for formal climate payments in community forestry?

5.1 Evolving policies for forest-related climate payments

In 1997 the Kyoto Protocol established the CDM (Clean Development Mechanism) to allow developed countries to meet a part of their committed reduction of CO_2 emissions by supporting projects for emission reductions in developing countries. This agreement heralded the formal start of payment systems for reforestation as a means for carbon sequestration. Since that time, several studies have been undertaken to ascertain how this policy could be incorporated in community forestry (e.g. Klooster and Masera, 2000; Smith and Scherr, 2003; Boyd et al., 2007; Minang et al., 2007; Corbera et al., 2009). These discussions have been intensified within the framework of the proposed REDD (Reduced Emissions from Deforestation and Forest Degradation) policy to be discussed in the 2009 Climate Summit in Copenhagen.

Regarding the objectives for the climate payments, the CDM policy was focused on stimulating reforestation as a means for sequestering carbon dioxide, whereas the REDD policy is focused on preventing carbon dioxide emissions from deforestation and forest degradation. In the international discussions on REDD the objectives were gradually extended from RED to REDD to REDD++. These amendments concerned at the one hand an extension from preventing deforestation to prevention of deforestation and forest degradation as well as stimulation of sustainable forest management, and at the other hand the addition of co-benefits in the form of conservation of biodiversity and recognition of the forest rights of indigenous people (Humphreys, 2008). Hence, the original objective of paying for a forest regulatory service with regard to climate change gradually was extended by adding objectives regarding additional ecological requirements as well as social requirements on responsible management systems and proper benefit sharing.

These changes were mainly the result of policy discussions rather than from lessons learned with the implementation of the CDM policy. As mentioned in section 3.2, in general the CDM scheme was experienced to be very complicated. There was found to be a lack of capacity to formulate projects in accordance with the technical rules, a lack of ability by project developers to attract financing for implementation of reforestation projects, and a lack of experience with monitoring and verification resulting in high costs. As a result only few CDM projects were actually approved (Robledo and Ma, 2008).

Several studies indicated that in respect to community forestry the CDM scheme was even more problematic. The studies indicated that the standards for CDM projects needed to be modified in case of community forestry projects, as the original design and implementation of the projects were ill-adjusted to the local capacity and context of forest

ownership, rights and responsibilities (Boyd et al., 2007; Minang et al., 2007) and to the specific characteristics of carbon trade (Corbera et al., 2009). Specific attention should be given to reducing transaction costs (Skutsch, 2005). In all these studies it is concluded that community capacity is generally insufficient for meaningful uptake and implementation of the CDM requirements, and that a wider CDM capacity building framework should be developed (Minang et al., 2007). There is a need to capitalize on synergies between representative local organizations and development organizations (Boyd et al. (2007) and strengthen institutional interplay between local organisations and international climate policy organisations (Corbera et al., 2009). These experiences have yet to be incorporated in the REDD process. However, the REDD readiness projects emerging in several countries offer scope for further incorporation of early experiences with PES payments in the REDD process.

5.2 Comparing developments regarding certification and climate change payments

As a result of the relatively long history of community-focused certification, the lessons learned during this process may offer interesting lessons to the community-forestry focused REDD development process. When comparing the two processes both similarities and differences become apparent. Studies about the scope for either community-focused certification and CDM payments both indicated the need for considering community capacities for fulfilling global standards and need for reducing high transaction costs. Hence, in both cases discussions took place about whether the original global standards needed to be adjusted to community conditions, and whether such adjustments should take the form of simplifying standards to enable community involvement or diversifying objectives in respect to community organisation. However, the status of actually considering the scope of community forestry in the two global schemes for environmental payments differs considerably (Table 7). Whereas the discussions about adaptations of certification standards is taking place within a well-established multi-level governance network enabling participation of all relevant stakeholders (Eden, 2009), the REDD discussions are still taking place within a setting of international government negotiation. Although this global process of policy negotiation involves in addition to representatives of international organisations and national governments, also representatives of civil society organisations representing concerns on conservation and indigenous people, the representation of different stakeholder groups is more restricted than under the FSC governance system. More attention needs to be given to more systematically incorporate all relevant categories of main actors in the climate change funds, i.e. government, private forest owners and public stewards (Johns et al., 2008).

Within REDD national governments will play a main role in implementation of the global REDD standards. This suggests that similarly to the FSC governance system, the REDD system will involve a multi-level governance system. However, the nature of these national level REDD governance arrangements are still unclear. There seems to be a tendency that most attention is given to the question of what arrangements national government organisation should make to be eligible for international payments, and that

Table 7 Different approaches towards certification and climate payments

	Timber certification	Climate payments
Payment system for environmentally sound forest products/service	Well-established criteria and indicators	RED (Reduced Emissions from Deforestation) REDD (RED + forest degradation)
Policy tool for stimulating socially-responsible management system	Well-established criteria and indicators	REDD + (REDD + sustainable forest management)
Policy tool for assuring proper benefit sharing	Development of adjusted standards for community forestry	REDD++ REDD co-benefits concerning biodiversity and indigenous peoples

less attention is given to the question of how these international financial payments are transferred to the different categories of forest managers. In order to assure that community forestry schemes profit from such payments, it is important that further arrangements are made for civil society organisations, including community forestry organisations to be represented in the national processes. The creation of policy partnerships requires well organized community forestry umbrella organizations with proper representation at national level and good lobbying capacity.

5.3 Conclusion: options for climate change payments for different types of community forestry

Under the present policy arrangements governing the REDD process, there is still a lack of clarity about how the interests of community forestry will be represented. As a result of the gradually emerging policy arrangements, it seems likely that the different types of community forestry types will be unequally affected (Table 8). In view of the international policy concerns on rights of indigenous people, including their representation at the international REDD discussion fora, and the relatively large expenses of forests under control of indigenous communities, climate payments for this type of community forestry seem to be most promising. The inclusion of the smaller-scale community forestry schemes of forest-fringe communities, who cannot refer to international treaties on their specific rights, will probably require additional policy measures. Regarding such smallholder community schemes, chances for being incorporated in REDD schemes seem best for communities managing forested landscapes, and less for communities managing forests at the agricultural frontier or communities engaged in intensive tree cultivation. The first category of community forest management may be considered primarily as being engaged in deforestation, and the forests of the second category may be considered as having a too low carbon stock or too low level of

biodiversity. In order to include these last two categories of community forestry in climate change payments, additional policy measures will have to be taken.

Table 8 Different governance scenario's regarding inclusion of different types of community forestry in climate change payment schemes

Scenario	Impact on community forestry	Best-bet option for different CF types
National governments create uniform arrangements and bureaucratic facilities on basis of adopted international standards focused basically at natural forests	Limited impact: • Capture of payments by economically and politically stronger forestry organisations • Difficult to meet uniform global standards focused on natural forest ecosystems • High transaction and training costs to fulfil global standards	Limited inclusion of CF type 1 only • Indigenous people rights acknowledge in international standard setting • Forest quality and scale conforms international frames
National governments develop a variety of country-specific standards for community forestry, including attention to forest-analogue systems	Better options for inclusion of typical community forestry systems in forest landscape mosaics Requires strong and effective national representation of CF Hazard for capture by most powerful CF groups	Better option for inclusion of CF type 1 and 2 Type 3 excluded as they are primarily perceived as reclaiming forests Type 4 excluded for not being sufficient forest-analogue
Idem, with added attention to develop specific policy measures for including community forestry organisations in bureaucratic procedures	Increased impacts due to stimulation of public-community partnerships with attention to fair benefit-sharing increases impact	Mainly CF types 1 and 2, as these communities tend to be better organized to represent their interests
Idem, plus systematic efforts to include community forestry in multi-actor partnerships	Optimal impact due to multi-level focus on own position of CF in relation to graduated standard for compliance to multiple objectives	Optimal arrangements for CF types 1 and 2 Inclusion of CF type 3 and 4 depend on development of overall policy agenda

6 Final conclusion

When considering the scope for community forestry based environmental and climate change payments, four main issues need careful consideration:

- Over the past decades, the main focus of community forestry gradually changed. This evolution concerned a change of perspective on the need to create a dual forest economy to a perspective of embedding community forestry in mainstream forest policy, a shift in objectives changing from fulfilling basic needs to income generation through commercialization, and a change from advocating local knowledge and autonomy to stressing the importance of participation in external networks. The development of community-focused payments for environmental services contributes towards this ongoing redirection of the major assumptions underlying community forestry. The implementation of community-focused PES schemes requires recognition of community forestry being embedded in wider social and economic networks rather than only involving local autonomy.
- During the evolution of community forestry gradually different types of community forestry developed. A distinction can be made between often large-scale community forestry schemes of indigenous people who regained ownership of ancestral lands, and much more small-scale community schemes of forest fringe communities of either traditional inhabitants or new settlers. The rights of indigenous people to their ancestral forested homelands are recognized in several international treaties. This recognition has provided indigenous people with a political capital (including participation in the global climate change discussions) that is not yet available to forest fringe communities. The unequal access of different community forestry types to political capital, and its impact on options for inclusion of different community forestry types in PES and climate change payments deserves more attention.
- Community forestry is normally as representing a typical example of the need to decentralize and devolve forest policy and management and to form new forms of forest governance including NGOs and development organizations. The newly emerging PES schemes bring with it two new developments. Firstly, they involve a growing importance of commercial organizations. Secondly, there is a tendency, notably in the newly emerging REDD policy, that the early PES schemes based on voluntary payments are changing towards more formal government mediated schemes. This brings with it a new recentralization of forest policy and a need to reconsider institutional arrangements for the governance of community forestry.
- In order to profit from climate payments community forestry should further enhance their power of negotiation at national level. This can be accomplished by developing strong umbrella organizations for representation at national and global policy for a, forming strategic alliances and multi-stakeholder partnerships with both socially-responsible commercial enterprises and civil society organizations acting as development brokers and facilitators.

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