Carbon Ownership in Community Managed Forests

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Abstract: In Nepal, the community forestry programme was introduced in the late 1970s with a dual objective: to improve forest management and to alleviate poverty. It resulted in a reduction in the rate of deforestation and an increase in biomass levels of existing forested areas. An added benefit was an increase in the rate of carbon dioxide sequestration from the atmosphere, helping to mitigate climate change. This valuable ecosystem service has not been recognized under the Clean Development Mechanism (CDM) of the Kyoto Protocol\(^2\), which is the main vehicle by which carbon reductions in developing countries may be financed by Northern countries. If carbon trading is to succeed as an incentive for sustainable forest management, there has to be some guarantee that forest-dependent communities will receive financial compensation for their carbon sequestration services. This article discusses these ownership issues in general and the position of communities within the Forest Act 1993 of Nepal in particular.

Key words: CDM, deforestation, carbon credit, community forests, community forest users group

INTRODUCTION
Community-based forest management is carried out by rural communities in many developing countries, including Nepal. One of its proven benefits is to reduce the rate of deforestation and to increase the biomass levels of existing forested areas, thereby, increasing the rate of uptake of carbon dioxide from the atmosphere and reducing the risk of climate change. The establishment of international forest carbon markets could act as a strong incentive to encourage more communities to manage their forests sustainably. This would have many benefits besides carbon sequestration, including prevention of soil erosion, protection of water catchments, and conservation of biodiversity. Some see the possibility of international payments for carbon sequestration in community forests through carbon markets as the key to slowing the rate of deforestation across the globe (Smith and Scherr 2003, Subak 2002).

However, if carbon payments are to act as an incentive to communities to manage their forests sustainably, there has to be some guarantee that these communities will receive adequate financial compensation for the work and sacrifices they undertake. International trade in carbon credits could bring money and economic growth to those communities managing forests, plus the additional benefits mentioned above. However, for this to happen there needs to be increased clarity about who owns the carbon. If a community successfully manages a forest so that additional carbon is sequestered, do they have ownership rights over this sequestered carbon, and are these rights secured? Are they empowered to sell the carbon credits that they gain as a result of this management? Do User Group hold these rights both in theory and in practice?

COMMUNITY BASED FORESTRY POLICY IN NEPAL
Nepal is an agrarian society with a predominantly rural population—including many poor and disadvantaged groups—highly dependent on forests to meet their everyday needs. However, forests were initially seen and managed as a commodity for the rulers and other elites. During the Rana regime prior to the 1950s, these elites used forests as their income source by selling timber to India. Forested land in the Terai was allotted to the Rana families. The end of Rana hereditary rule brought big changes in the forestry sector. The government promulgated the Nationalisation of Private Forest Act 1957 (HMGN 1957) to bring all forested lands under its jurisdiction. The reason for nationalising private forests, and for the subsequent establishment of a Forest Department during the 1960s, was to enhance government control and scientific management of forests (Hausler 1993) and to curtail the privileges enjoyed by elites under Rana rule. However, these measures failed to recognise the high dependency of rural people on forests.

Under the aegis of the newly created Forest Department, Nepal’s government enacted the Forest Act of 1961. This was the first comprehensive legislation dealing explicitly with forests and forest products. The Act divided forests into different categories; defined the duties and authority of the Forest Department; listed offences and prescribed penalties (Gautam et al. 2004). However, the Act also failed to recognise the customary rights of the people and was based on ‘strict conservation’ principles. The Forest Protection (Special Provision) Act 1970 (HMGN 1970) and The Forest Products (Sales and Distribution) Rules 1970 (HMGN 1970) were subsequently enacted, imposing stronger penalties for damaging or removing forest products. These laws were also intended to deter an influx of hill migrants to the Terai following eradication of malaria there during the 1950s. However, due to poor enforcement, these laws were ineffective and rapid deforestation continued thanks to forest clearing for agricultural expansion and settlement. However, the main underlying reasons for the rampant deforestation of the 1960s and 1970s were: a) the failure to recognize the symbiotic relationship between communities and forests, b) the imposition of stringent penalties, and c) the encouragement of hill migrants to
settle in the Terai under official resettlement programmes (Gautam et al. 2004). The stringent penalties were put in place to restrict access to natural resources of the rural communities who are highly dependant on forest resources. Law was enacted where full control was vested in the Department of Forests, but there were a negligible number of government authorities (Hausler 1993) to monitor the illegal activities inside the forest. Poor vigilance by the government authorities was used as an opportunity by the rural communities to enter into the forest and carry out illegal activities like cutting down timber. Moreover, there was no alternative provided to the forest-dependent communities in terms of the utilisation of natural resources and was the fundamental basis for deforestation in Nepal.

By 1976 the government had finally recognized the important role of rural communities in protecting the forest and adopted a new approach by allowing community management in the degraded forest land through the Panchayat Protected Forest Rules 1978 (HMGN 1978). Likewise, the Leasehold Forest Rules 1978 (HMGN 1978) allowed communities and individuals to lease barren or degraded land. Nonetheless, these laws also failed to devolve power to rural communities. The question remains as to whether this was by design or simply by oversight. In any case, large-scale deforestation occurred in the Terai and in the Middle Hills as a result. The failure of past forest legislation, and the concern and support of international donors, provided a stimulus for the government to formulate new policies. The first was the National Forestry Master Plan 1988 (HMGN/ADB/FINNIDA 1988). Based on this new legislation the government developed the concept of community forestry, which was developed in the late 1980s and early 1990s. In Section 2(h) of the Forest Act 1993 (HMGN 1993), a community forest is defined as a ‘National Forest handed over to a user group, pursuant to Section 25, for its development, conservation and utilisation for the collective interest’.

During the last two decades community forestry has proliferated throughout the country, with over 1.22 million hectares or 20.5% of national forest land now under the management of Community Forestry Users Groups (CFUGs). Community forestry has been seen not only as a tool to improve forest management, but also as a means to alleviate poverty and to promote equity in communities living near forested areas by helping disadvantaged groups (Basnet-Parasai 2006). In 1990 the democratic movement brought more power to the people. It was this political change that ultimately led government to accept the symbiotic relationship between people and forests and to formally recognise rural communities as custodians of the forest. This realization resulted in the implementation of a comprehensive community forest management programme from the mid-1990s onward.

ORGANIZATION OF COMMUNITY FOREST USER GROUPS

According to the Forest Act 1993 (HMGN 1993), communities are granted full authority to manage the forest, although they do not own the forest or the forest products under Nepalese law. Communities interested in managing the forest form CFUGs in their respective locality. CFUGs are typically socially heterogeneous with members from both the wealthy classes and the poorer segments of society. Each CFUG is allocated a forest area and a management plan–with rules about how the forest can be used–is drawn up and approved by the District Forest Office (DFO). In this way, the harvest and use from the forest is to be kept within sustainable levels. However, the Government reserves the right to take away the forest if they feel that the CFUG is not managing the handed over forests according to the approved Operational Plan (OP), since the law doesn’t grant legal ownership to the community, but only temporary management and use rights.

LEGAL RIGHTS OF COMMUNITY FOREST USER GROUPS UNDER THE FOREST ACT 1993

According to Section 43(1) of the Forest Act 1993 (HMGN 1993), a registered user group is an autonomous and corporate body with perpetual succession. Perpetual succession means that the membership of a company may keep changing from time to time, but that does not affect the company’s continuity (Singh 1991). For example the river Bagmati remains the same river, though the parts which compose it change every instant. It is significant for CFUGs as the law has stipulated ‘perpetual succession’ irrespective of the illegal activities under the law; otherwise the CFUG is prescribed with same entity, privileges and immunities. In Forest Act 1993 (HMGN 1993) in Section 25 government issues a ‘certification of alienation’ (Section 42(2)) once a CFUG is formed and registered. Once a certificate of alienation is issued that means that a corporate body (herewith CFUG) is recognized as a legal person, and is capable of owning, enjoying and disposing of property in its own name (Singh 1991) under the law. The CFUGs must have their own seal and are legally entitled to acquire, possess, transfer or otherwise manage movable and immovable property and, like an individual, may sue or be sued in their own name (Section 43, Forest Act 1993). Immovable property is that which cannot be moved from one place to another, such as trees or land. Therefore, a CFUG, being an autonomous and corporate body with perpetual succession as prescribed by the Act, is entitled to engage in commercial activities with forest products, as long as they don’t endanger the status quo of the forests when it was handed over for management. In the case of carbon forestry projects, the CFUG is entitled to conduct
commercial transactions with interested parties, while simultaneously conserving the forest.

Despite the clear rights bestowed upon the CFUGs for subsistence and commercial use of the forests, the Forest Act 1993 (HMGN 1993) states that whatever activities the CFUG undertakes must not contravene the Operational Plan (OP) prepared with the help from the District Forest Officer (DFO) during the initial landover of the forest area. This means that CFUG must stick to its original plan but they can change the work plan provided if it is agreed to by the DFO (Rule 37, Forest Regulation 1995, HMGN 1995). Thus, if a CFUG sell forest products to an interested party, and if this is not mentioned in their OP, then Section 27 of the Forest Act 1993 would not allow the transaction. If a CFUG makes a timely amendment to the work plan relating to the management of the community forest and informs the DFO accordingly (Section 26(1), Forest Act 1993), and if the DFO agrees to the amended workplan, then the sale of forest products may be permitted. However, if an amendment made in the work plan by the CFUG is considered likely to adversely affect the environment in a significant way, the DFO may direct the CFUG not to implement such an amendment within thirty days from the date when the Officer receives such information. It is the CFUG’s responsibility to comply with such directives (Section 26(2), Forest Act 1993). If the CFUG fails to comply with directives from the DFO, examining the case the forest will be withdrawn and the registration will be cancelled (Rule 37, Forest Regulation 1995). But if the CFUG comes up with a satisfactory explanation and proves that the activity has not jeopardized the legal agreement, the DFO will allow the continuation of the CFUG.

The Act also states (in Section 25, Forest Act 1993) that a CFUG may sell or distribute forest products independently by determining their prices. Forest-carbon is a value addition of a tree and pursuant to the Forest Act 1993 (HMGN 1993), the CFUG is entitled to sell the forest-carbon by determining its price according to the international market. In theory, the CFUG is a corporate body that can acquire, possess, transfer or otherwise manage movable and immovable property, and although the forest and land is owned by the State, the CFUG has been given authority to manage the forest by the government. A corporate body or a company has many features. The Forest Act 1993 (HMGN 1993) recognizes the CFUG as a corporate body, but in reality user groups are given managerial rights over the forest that typically lack rights to sell or otherwise alienate land through mortgages or other financial instruments (White and Martin 2002). Bhattarai and Khanal (2005) have explained that a person who possesses only a few of the rights is said to have property rights over an object, but may still lack an ownership right. If the CFUG, which has limited rights over the community-managed forest, determines the value of forest-carbon according to the international market, any capital gain will become contentious as was demonstrated by case law in 2000.

Managerial rights are given to those who are entrusted to exercise legal rights by the company or a group. The legal basis for CFUGs is that the government has, by agreement, legally entrusted management of the forest in return for limited access to forest resources for the members of the CFUG. This right is de facto as it embodies informal constitution and does not represent the fundamentals of corporate body (refer to preamble of Forest Act 1993). Nevertheless, the CFUG is given usufruct rights, meaning they can utilize forest resources but will not have ownership over them. For example, CFUG ‘A’ can manage forest as long as they stick to the legal agreement made with the government. If ‘A’ contravenes the agreement according to the Forest Act 1993, the right will be taken or, for simplicity’s sake, ‘A’ will be cancelled (therefore, the very constitution of the CFUG is informal or de facto if we refer to the definition of company). ‘A’ has usufruct rights meaning that ‘A’ can only utilize the forest resources under the existing law but the ownership rights remain with the government. These rights therefore, can be considered ‘tenurial’, meaning granted only for a limited period without ownership stipulated by the contract. If this right is cancelled or arbitrarily taken, the CFUG can seek judicial remedy, by invoking the writ jurisdiction of the Supreme Court.

Under Nepal’s community forestry system, standing trees and the forest land are the property of the State. In this construction, the sequestered forest-carbon cannot be considered the property of the CFUG as they do not have the right to trade forest-carbon or sell other forest products. This conflicts with Section 43 of the Forest Act 1993, which recognises CFUGs as autonomous and corporate bodies with perpetual succession; and with Section 25, which entitles CFUGs to sell and distribute forest products independently by determining the price of forest-carbon.

DISCUSSION

Many rural communities have a symbiotic bond with the forest as it is the source of their daily livelihood requirements, such as fuelwood and herbal medicines. Additionally, rural people have religious beliefs associated with the forest, and have also been using the forest as a means of economic development. Malla (2001) clearly explains the role of the human-forest relationship in forest development and conservation in Nepal. This relationship has made it possible to protect forests from total deforestation despite a lack of financial incentives and an ongoing lack of clarity and certainty over ownership.

Private ownership represents an exclusive and absolute relationship of an object to a person, such that the person has the right of complete control and enjoyment
of the object (Tripathi 1990, Fitzgerald 1988). To own something, a person is to have certain rights and duties vis-à-vis other people or juridical persons with respect to that thing (Bergström 1999). In short, ownership is a bundle of rights and duties (Tripathi 1990). Ownership can be defined as an absolute and legal right that the state has ensured for an individual. If a person does not have this right then the person cannot have legal ownership over the object (Bergström 1999). Salmond\textsuperscript{2} declares that a 'right' is protected by the rule of law; in other words he believes that a right must be judicially enforceable (Tripathi 1990). Fitzgerald (1988) explains that a right can be either moral or legal. A moral or natural right is an interest recognized and protected by a moral code, whereas a legal right is an interest recognized and protected by the law. The usufruct right (Section 67) given to the forest users by the Forest Act (1993) represents a legal right, because CFUGs can challenge violations of that right in the civil court. The Master Plan for the Forestry Sector 1988 (HMGN/ADB/FINNIDA 1988) also recognized the usufruct rights of the CFUG.

The Forest Act of 1993 (revised in 1999) states in its preamble that 'it is expedient to meet the basic needs of the public in general, to attain social and economic development, and to promote a healthy environment and to ensure the development and conservation of forest and the proper utilization of forest products by managing the national forest in the form of government managed forest, protected forest, community forest, leasehold forest and religious forest'. The Act also states that the main objective of community forestry is to meet the basic needs of rural communities, but without any reference to ensuring that all members of the community benefit equitably.

Furthermore, it has restated only the usufruct rights of management over the trees, and the forest products derived from the land but has failed to address legal ownership rights to the forest. Article 35(4) of the Interim Constitution of Nepal 2007 (GoN 2007) states that the state shall—while mobilizing the natural resources of the country that might be useful and beneficial to the interest of the nation—pursue a policy of giving priority to the local people. Furthermore, in Article 35(5) it states that provisions shall be made for the protection of the forest, its vegetation and biodiversity, its sustainable use, and the equitable distribution of the benefits derived from it. In the context of these provisions, where the law has defined equitable distribution and usufruct rights of the people, then perhaps forests and forest products can be regarded as res communes omnium. In other words, they can be owned by anyone or, alternatively, they belong to all of us together (Bergström 1999).

In regards to ownership, two views can be considered: Lockean and Utilitarian. According to the Lockean view, as developed by John Locke, everyone owns those objects with which he or she 'mixes' his or her labor, at least insofar as there is 'enough and as good left in common for others' (Bergström 1999). In the Forest Act 1993 (HMGN 1993), the law has explicitly defined (in Section 25, Forest Act 1993) the process of handing over national forest land to CFUGs to develop, conserve, use and manage the forest according to a work plan, and to sell and distribute the forest products independently by determining the price of forest products (Section 25, Forest Act 1993). While handing over the community forest, the DFO issues a certificate of alienation (i.e. transfer of property rights). Hence, members of the CFUG put their labor into managing and developing the forest. If we consider the Lockean view (as explained above), then this piece of land is morally owned by the CFUG (so that the CFUG can maximize their labor for gainful activities), allowing them to independently transfer or sell any products that they grow. Independently means without any interference from the authorities. However, as Bergström (1999) explains, the Utilitarian view of ownership posits that a legal system should be devised in such a way as to satisfy the Utilitarian criterion of rightness; i.e. it should maximize the overall welfare of all human beings.

Ownership is defined by legal systems. Consequently, according to the Utilitarian view, morally acceptable ownership is ownership as defined by a legal system that satisfies the Utilitarian criterion. Article 35 of the Interim Constitution of Nepal 2007 (GoN 2007) corroborates this view and the preamble of the Forest Act 1993 (HMGN 1993) also stresses the importance of meeting the basic needs of the general public. These two provisions adopt a Utilitarian view, but neither provision explicitly defines a system that satisfies the Utilitarian criterion, meaning the needs of the public in general. Section 27 of the Forest Act 1993 mentions reclaiming the community forest if the CFUG carries out activities not mentioned in the work plan. There have been a number of cases in which forests have been taken away from communities under what appears to be arbitrary circumstances. This seems to contradict the law (HMGN 1993, White and Martin 2002) and does not fall under the Utilitarian view that forests should serve to maximize the welfare or resource benefits of rural communities and especially the highly forest-dependent rural poor. In the case of carbon, if the government maintains control over all potential benefits to communities, there will be no additional motivation for the communities to protect the forest. To instil further confidence that their benefits will be secured and guaranteed, there needs to be a clear legal mandate. If there are no tangible benefits, and no guarantee or security of rights under the law, there is likely to be less participation and cooperation by rural communities (Brown and Corbera 2003).

Once forest-carbon becomes a product that can be traded, the issue of who owns the forest-carbon and who
should control the resulting wealth will become critical, since wealth is associated with property. Also, under the current law, the CFUGs do not have legal ownership but only de facto managerial rights over the forest (legally CFUG have managerial right but this right can be revoked under any circumstances prevailing to the work plan and Forest Act 1993). As Saunders (2003) mentions, ‘property is more than the relationship between a person and a thing; it is the relationship between a person (or group) and other persons in relation to that thing’. Commercialization of forest-carbon will have capital gain to the CFUG and this will create insecurity as there is possibility of the government claiming all the funds from the gain (refer to case law Hari Neupane and Others v. CFUG Cabinet Secretariat and Others 2003). Although the government of Nepal has legally devolved management authority to rural communities, these communities don’t have any guaranteed ownership rights over forest products. White and Martin (2002) have suggested that official legal and judicial recognition of community-based rights to forest resources is the way to overcome this problem, but other alternatives might also be possible. However, in the case of forest-carbon trading, the ownership question and the associated rights, duties and payoffs need to be clarified and guaranteed; the problem at present is that they are vague and tenuous.

A possible scenario for the future could be for the State to legally establish carbon trading as a usufruct right of CFUGs, which would give a guarantee that could not be revoked arbitrarily, and if it is compromised then this can be contested in the courts. This would provide additional security to those who manage community forests. In order to guarantee carbon trading as a usufruct right of the forest users, the government has to relinquish some control over forest resources and act only as a monitoring agent to ensure the sustainable management of the forest (not command and control agent). If this is possible, then in theory it can be postulated that the benefits received from carbon forestry could be distributed equitably among the users, but it would be too early to say whether this would benefit poor people the most since the equitable distribution of capital gains depends on the internal dynamics of the community itself.

Another possible scenario is that the community, rather than being the owners of forest carbon, might be designated as its official steward. Under such an arrangement, the owner (probably the State or, more specifically, the Department of Forest) would claim the international payments for the carbon, but the local community would claim compensation from the owner (State or Department of Forest) for managing the forest to make these carbon claims possible, under some form of contract. At this stage is it unclear whether carbon would be viewed, from a judicial standpoint, as a renewable product (similar to non-timber forest products). The stewardship scenario would be most acceptable to the State under the prevailing law and, perhaps would be best for communities, for by and large it will provide fewer contests amongst the CFUGs in claiming carbon-related funds. But for this scenario to be acceptable and produce incentives for CFUGs to participate, laws need to have clarity on who the real owner of the carbon is and what the rights of other actors are with respect to this resource. This stewardship scenario is similar to the current situation under community forestry and therefore, has the potential of being accepted by the government. If this scenario is to be developed it is also imperative to develop a strategy to ensure that poor people benefit the most.

**CONCLUSION**

This article discussed the ownership issues of carbon in community forestry with reference to provisions made in the Forest Act 1993, and also in the light of emerging carbon trade structures. A key conclusion is that if carbon trading is to succeed as an incentive for sustainable forest management, there has to be some guarantee that forest-dependent communities will receive financial compensation for their carbon sequestration services. Despite the paradigm shift in forest policies and laws towards supporting community management of forest, a top-down governance ideology still permeates the national level bureaucracies. As a result, communities are frequently denied legally recognized community-based property rights, including the right to use fuel wood or spring sources. For the community to receive benefits from forest carbon, the State needs to abandon their top-down governance ideology and fully entrust the communities with the right to manage community forests. Only such conditions will help achieve the stated vision of community forestry in Nepal where CFUGs have full security in their property rights, including those related to selling carbon credits.

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**REFERENCES**


1 This is a replication of a paper presented in Marie Curie Summer School at Vrije University in the Netherlands in 2007. It is slightly modified.
2 At present, only ‘afforestation’ and ‘reforestation’ activities, i.e. the planting of trees on non-forest land, to land that has had no trees since 1990, are permitted to claim carbon credits under CDM.
3 Company is a distinct legal persona existing independent of its members. In common law a company is a ‘legal person’ or ‘legal entity’ separate from, and capable of surviving beyond the lives of, its members (Singh 1999).
4 A company has features such as independent corporate business, limited liability, perpetual succession, separate property, transferable, capacity to sue and being sued (Singh 1999)
5 Hari Neupane and Others v. Cabinet Secretariat and Others. 2003 (2059 BS). Writ number 4242 of 2000 (2057 BS). Decision dated March 20, 2003 (2059/12/6 BS). In this case law, the government decision required CFUGs to deposit with the government 40% of the revenue generated from sale of timber. The government’s decision was challenged in the Supreme Court, which ruled that the government’s decision lacked legal basis and held it to be illegal (Belbase et al. 2007). Another contentious issue was the decision by the government in restricting handing over of national forest to the community of Terai, Churia, and Inner Terai. Though the Court observed, in effect, that the decision to withhold the handing over of national forest in the Terai for community forest development or limiting it only to barren and shrub lands, went against the principle of decentralization enshrined in Article 26(4) of the Constitution 1990 (HMGN 1995). Further, the Court observed discrimination in the decision to the people of Terai, Churia, and Inner
Terai to take benefit from community forest, however, the Court observed it as policy decision and declined to issue a writ of mandamus on this policy (Bhattarai and Khanal 2005).

6 The right to property signifies the right to possess, use, mange and receive income; the liberty to consume or destroy; the immunity from expropriation; and the duty not to use it for harmful purposes. If a person possesses all these rights or most of them, with respect to a thing, then it can be said that such a person owns the property (Bhattarai and Khanal 2005).

7 Sir John Salmond (1862-1924), was a well known jurist who got acclaimed on his book on ‘Treatise of Jurispudence’ in 1907.
The UNECE region is characterized by some of the most diverse forest ownership structures in the world. Forests around the world are owned by individuals, businesses, communities, municipalities, associations and nations.