Community-Based Forest Management in the Philippines: A Preliminary Assessment

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Institute of Philippine Culture
Ateneo de Manila University
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in collaboration with the

Department of Social Forestry and Forest Governance
College of Forestry and Natural Resources
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ACRONYMS

AAC	annual allowable cut
ADB	Asian Development Bank
ADMP	ancestral domain management plan
ANR	assisted natural regeneration
ASPECTS	Agroforestry Support Program for Empowering Communities towards Self-Reliance
AWCF	Asian Women in Co-operative Development Forum
AWP	annual work plan
BENRO	Bukidnon Environment and Natural Resources Office
BEST	Bukidnon Environment Small-Scale Tree Farm Project
BLUDPP	Buhi-Lalo Upland Development Pilot Project
BOD	board of directors
BRWDP	Banica River Watershed Development Project
BURDFI	Bicol Upland Resources Development Foundation, Inc.
CADC	Certificate of Ancestral Domain Claim
CADT	Certificate of Ancestral Domain Title
CALC	Certificate of Ancestral Land Claim
CALT	Certificate of Ancestral Land Title
CARP	Comprehensive Agrarian Reform Program
CBFM	Community-Based Forest Management
CBFMA	Community-Based Forest Management Agreement
CBNRM	Community-Based Natural Resource Management
CFLA	Communal Forest Lease Agreement
CFMA	Community Forest Management Agreement
CFP	Community Forestry Program
CFPQ	Community Forestry Program for Quirino
CFSA	Certificate of Forest Stewardship Agreement
CLOA	Certificate of Land Ownership Award
CPEU	Center for People Empowerment in the Upland
CPPAP	Conservation of Priority Protected Areas Program
CRMF	community resource management framework
CSC	Certificate of Stewardship Contract
CSD	Comprehensive Site Development
CTF	Communal Tree Farm
CVRP	Central Visayas Regional Project
DAO	Department Administrative Order
DATEC	Dingle Agricultural and Technical College
DENR	Department of Environment and Natural Resources
DILG	Department of Interior and Local Government
DSFFG	Department of Social Forestry and Forest Governance

DTI	Department of Trade and Industry
ECC	Environmental Compliance Certificate
ENR-SECAL	Environment and Natural Resources-Sectoral Adjustment Loan
EO	Executive Order
EU	European Union
FAR	Family Approach to Reforestation
FIDA	Fiber Industry Development Authority
FLMA	Forest Lease Management Agreement
FMB	Forest Management Bureau
FOB	freight on board
FOM	Forest Occupancy Management
FPE	Foundation for the Philippine Environment
FSC	Forest Stewardship Council
GEF	Global Environment Facility
GO	government organization
GOLD	Governance and Local Democracy
GOP	Government of the Philippines
GTZ	Gesellschaft fur Technical Zusarmenarbeit
HES	Human Ecological Security
ICC	indigenous cultural community
ICRAF	International Centre for Research in Agroforestry
IFMA	Industrial Forest Management Agreement
IGM	Inspeccion General des Montes
ILO	International Labour Organization
IPC	Institute of Philippine Culture
IPRA	Indigenous People's Rights Act
IRA	Internal Revenue Allotment
ISFP	Integrated Social Forestry Program
ITTO	International Timber Trade Organization
JBIC	Japan Bank for International Cooperation
KBFAI	Kapit-Bisig Farmers Association, Incorporated
KEF	Kalahan Educational Foundation
KMYLB	Kapunongan sa Mag-uuma sulod sa Yutang Lasangnon sa Bulolakaw
KRA	key result area
LGC	Local Government Code
LGU	local government unit
LIUCP	Low-Income Upland Communities Project
LOI	Letter of Instruction
MBRLC	Mindanao Baptist Rural Life Center
MC	Memorandum Circular
MOA	Memorandum of Agreement
MOSCAT	Misamis Oriental State College of Agricultural Technology
MPFD	Master Plan for Forestry Development
NCIP	National Commission on Indigenous Peoples

NCSO	National Census and Statistics Office
NGA	national government agency
NGO	nongovernment organization
NIPA	NGOs for Integrated Protected Areas
NIPAS	National Integrated Protected Areas System
NPPFRDC	Ngan, Panansalan, and Pagsabangan Forest Resource Development Cooperative
NRMP	Natural Resources Management Program
NTFP	non-timber forest product
NVS	natural vegetative strips
NVSIT	Nueva Vizcaya State Institute of Technology
OECF	Overseas Economic Cooperation Fund
PACAP	Philippines-Australian Community Assistance Project
PAMB	Protected Area Management Board
PASu	protected area superintendent
PD	Presidential Decree
PICOP	Paper Industries Corporation of the Philippines
PLA	Pasture Lease Agreement
PNOC	Philippine National Oil Company
PO	people's organization
PRA	Participatory Rural Appraisal
PROFEM	Program for Forest Ecosystem Management
PSLS	Philippine Selective Logging System
RA	Republic Act
RRA	Rapid Rural Appraisal
RRDP	Rainfed Resources Development Project
RRMP	Regional Resource Management Program
RUP	resource use plan
SALT	Sloping Agricultural Land Technology
SIDA	Swedish International Development Cooperation Agency
SIFMA	Sustainable Industrial Forest Management Agreement
SWCF	Soil and Water Conservation Foundation
SWOT	strengths-weaknesses-opportunities-threats
TKFPI	Tao Kalikasan Foundation of the Philippines, Inc.
TLA	Timber License Agreement
TSI	timber stand improvement
UDP	Upland Development Program
UNAC	Upland NGOs Assistance Committee
UNDP	United Nations Development Programme
UPLB	University of the Philippines at Los Baños
USAID	United States Agency for International Development
VSO-P	Voluntary Services Overseas Philippines

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The CBNRM Forestry Team

1

INTRODUCTION

Community-based forest management (CBFM) constitutes a powerful paradigm that evolved out of the failure of state forest governance to ensure the sustainability of forest resources and the equitable distribution of access to and benefits from them. Acknowledging the role of commercial timber extraction, corruption, and ineffectual governance in creating the twin problems of forest degradation and upland poverty (Porter and Ganapin 1988; Repetto 1988; Kummer 1992), CBFM advocates stress the urgent need to empower and involve communities in forest management (Poffenberger 1990; PWG 1999). Espousing a participatory development paradigm, they maintain that forest protection and sustainable use can be more effectively achieved when local communities plan and implement these themselves instead of having the state, which has shown dismal performance thus far, continue to do so on its own. This participatory and community-based sustainable management stance translates to advocacy for community participation in local forest governance. It is believed that "responsiveness, effectiveness and efficiency are optimally obtained when decisions, programs and projects are done by those who should know them best–the people themselves" (PBSP 1994).

The rationale for this is both pragmatic and ideological. In the first place, forest-dependent communities have as large, or even larger, stake in sustainable forest management as the government bureaucracy for the simple reason that they depend on this resource base for their survival (Poffenberger 1990; Ascher 1995). In addition, living near or within forestlands, local communities are presumed to have greater knowledge and understanding of the terrain, the resources, and their constraints and opportunities (Korten 1986; Ascher 1995), and are presumably in a better position to respond quickly to such emergencies as fire outbreaks, encroachment, or timber poaching. Besides, considering that forestland communities–both indigenous peoples and migrants–have been the subject of government neglect and gross injustice for a long time (Vitug 1993), either through colonial aggression (Hurst 1990; Poffenberger 1990), inequitable resource allocation, or outright displacement by the more favored logging or mining concessionaires (Guiang and Manila 1994), the principle of social justice demands no less than community participation in both the benefits and

responsibilities of forest management (Poffenberger 1990; Korten 1993). Finally, in the course of their day-to-day interactions with the forests, many forest-user groups have developed indigenous knowledge systems and institutions that allow them to regulate local forest use (Dove and Rao 1990; Gilmour and Fisher 1991) and ensure continuity of the resource. CBFM allows the use of such local resources as indigenous knowledge and institutions in promoting sustainable forest management.

This movement toward local forest governance reflects national and international tendencies toward decentralization and devolution, particularly in the field of natural resource management (Poffenberger 1990; Hobley 1996). It is a central feature of the international discourse on common pool resources, which encompasses concerns on property rights, collective action, and local institutions that sustain self-regulation (Bromley and Cernea 1989; Ostrom 1991; Agrawal and Ostrom 1999). This discourse also implies the international community's influence on creating awareness of the value of indigenous knowledge, the existence of many sustainable indigenous systems (Dove and Rao 1990; Gilmour and Fisher 1991), and the indigenous people's struggle to protect and reclaim their identities and homelands (Poffenberger 1990). In the Philippine context and as highlighted by the Local Government Code (LGC) of 1991, this is likewise viewed as a concrete effort to realize the national ideals of democracy and social justice (Brillantes 2000).

The success of CBFM efforts is hinged on how well communities have exercised their right not only to participate in forest governance but also to employ their internal cultural resources–such as indigenous knowledge systems and social organizations–toward attaining resource sustainability, as well as on how much space they are given for exercising this right. How the government's CBFM program and the indigenous forest community management systems interact and influence each other is a question that should, therefore, interest government and nongovernment promoters of CBFM. This is tied to the CBFM funders' keen interest in whether or not the current CBFM strategy and related programs are indeed (1) embarking on and investing in sustainable forest and forestland management, and (2) translating into reality the benefits promised to the communities (Guiang and Harker 1998; Mickelwait, Harker, and Guiang 1999; World Bank 2001; Bisson and others 1997).

The present report is an initial attempt to look into the phenomenon of community participation in forest management and governance in the country,

both within and outside the context of the government's CBFM program. It is the result of several months of literature review and limited site validation of documented and undocumented CBFM experiences. It seeks to characterize the various CBFM models that exist, identify their strengths and weaknesses, and articulate underlying issues that enhance or constrain community participation. In so doing, it hopes to serve as a building block for further research and, hopefully, future positive action that will secure the communities' access to their natural resource base, ensure the sustainability of their livelihood, and contribute to the increase in number of empowered individuals whose community organizations and institutions reinforce the sustainable use of their resources.

The report is divided into six parts. This introductory chapter provides the sectoral context of forestry in the Philippines, which serves as the backdrop of current and past CBFM efforts, the research methodology, and the conceptual issues in the literature that frame the research, particularly those relating to community, governance, and sustainability. The second chapter contains a historical overview of the evolution of CBFM in the country. The third, fourth, and fifth chapters focus on the discussion of sustainability, community, and governance, respectively, in the context of CBFM. In each of these three data chapters, the underlying conceptual issues are tackled. The sixth and final chapter brings together the different pieces of the CBFM puzzle to articulate some generalizations on the CBFM Philippine experience thus far, its strengths and weaknesses, and its underlying influences. It interprets from these experiences lessons on how challenges and opportunities might be approached in the future to further the cause of community participation and empowerment in forest resource management.

THE PHILIPPINE FORESTRY SECTOR AND CBFM

This section describes the resource degradation and upland poverty situation in the country which provides the rationale for the implementation of CBFM in the Philippines. It further presents the enabling policies intended to promote and support CBFM efforts, and lays out the assumptions that underlie the CBFM program and the key strategies which formalize state support for CBFM.

Resource Degradation and Poverty

The forest cover of the Philippines declined from 70 percent of the country's total land area of 30 million hectares (ha) in 1900 to about 18.3 percent, or just

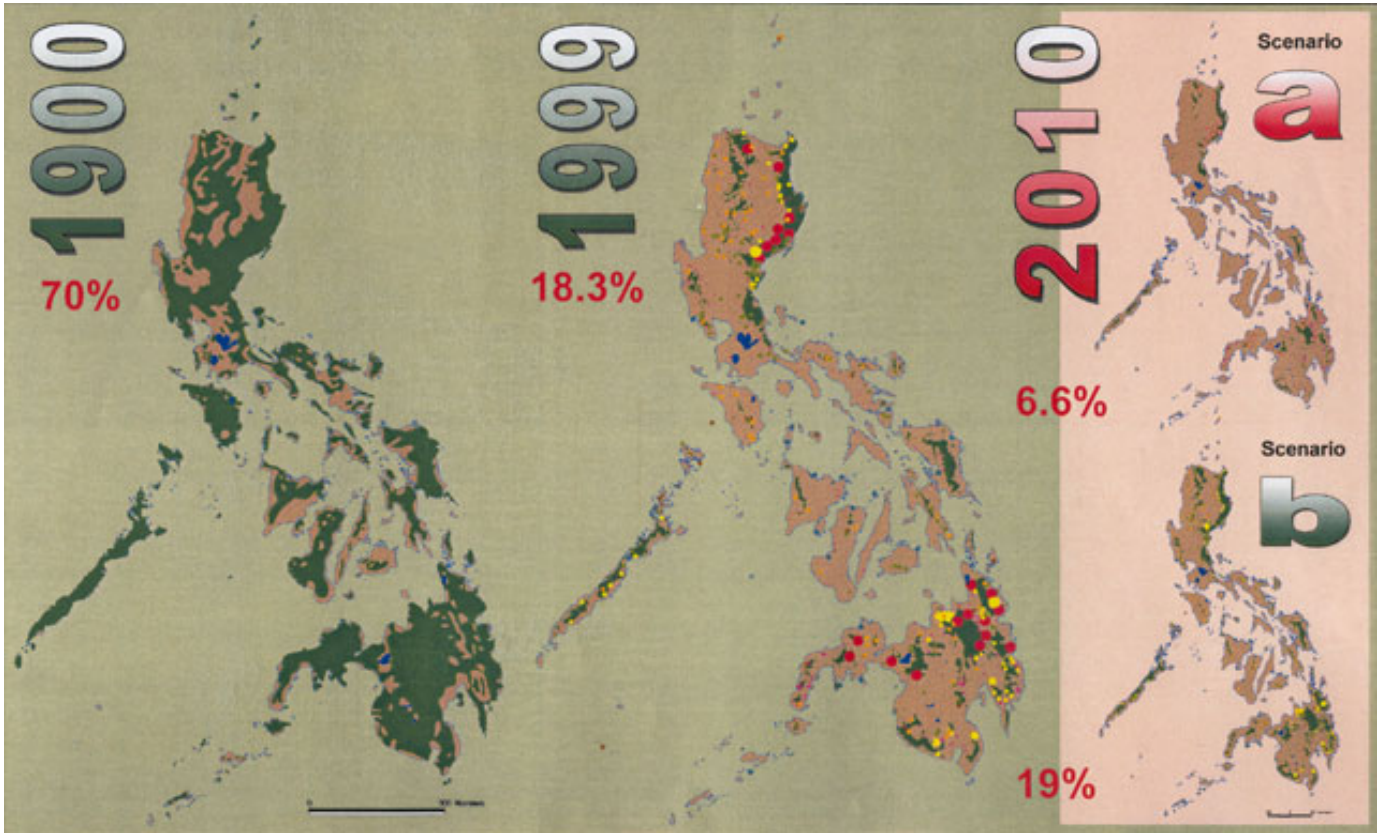
over 5 million ha of residual and old-growth natural forests, in 1999 (ESSC 1999a; see Figure 1). Old-growth forests are estimated to comprise less than one million hectare, mostly located in protected areas, reservations, concession areas, and cancelled, suspended, and expired concession areas. The forest cover is projected to decrease further to 6.6 percent of the total land area by the year 2010 if there is lack of government commitment and budgetary support for programs that recognize the interests of the local peoples linked to the natural forest areas. This raises the spectre of a possible loss of dipterocarp forests in the country, which had long been the world's primary source of the "Philippine mahogany" (USAID 1989; Heaney and Regalado 1998; NALCO 1997). With per capita forest cover at only 0.085 ha, the forest cover of the Philippines now ranks among the 11 poorest out of the 89 countries in the tropics (Revilla 1998*)*.

Causes

Forest degradation in the Philippines is often attributed to two factors: poverty with high upland population growth, and de facto management and open access (Borlagdan 1997; Kummer 1992; Cruz and others 1992; Repetto 1988; Porter and Ganapin 1988).

***Poverty and high upland population growth*.** Continuing upland migration owing to scarce economic opportunities in the lowlands and high natural population growth rate exacerbate forestland degradation. The upland population is presently estimated to be close to 24 million, of whom 6 to 12 million are indigenous peoples (Seve 1995; UP Population Institute cited in Guiang 2000; Guiang and others 2001*)*. With marginal household incomes well below the poverty line, the indigenous peoples and upland farmers are considered as among the "poorest of the poor." Migrants, being unable to eke out a living in the lowlands, where resources have already been appropriated by the elite and the middle class, continue to "colonize" the upland forestlands in search of lands to cultivate.

***De facto management and open access*.** The lack of operational and effective on-site management systems in many forestlands and forest resources characterizes the Philippine forestry situation. Only 19 percent of the country's 15.5 million ha of forestlands are covered by some kind of on-site management system (Guiang 2000). Most of the Philippine forests and forestlands (at least 9 million ha) are under de facto management (de los Angeles 2000), that is, for all



Source: ESSC (1999a).

Figure 1. Decline in forest cover of the Philippines (1900-1999)

intents and purposes, and by virtue of their occupancy or claimancy, forestlands are indirectly "managed" by their users for ill or for good. The intensity of degradation, however, suggests that de facto management systems are inadequate to stem the deterioration of forests, especially in open access areas.

Consequences

The loss of forest cover affects terrestrial and marine biodiversity as well as habitats, the stability of watersheds and water supply for domestic and irrigation needs and aquifer recharge, the security of communities from flashfloods and pests and diseases, the productivity of coastal areas and mangroves, and the protection and maintenance of roads, bridges, dams, and ports. It also threatens the continued existence of the country's 12,000 plant species, nearly one-third of which are endemic to the Philippines.

In economic terms, the consequences of open access forest leading to resource degradation and of degradation itself are severe. Given the dependence of human and social life on products from the forest–from wood to water and to the oxygen they produce–these consequences impinge on all sectors of society. In addition to reducing the effectiveness of forests to serve as a carbon sink for the environment (Johnson 1999), the major consequences are as follows:

Market failure and lost revenues. The open access condition of forests and forestlands has caused distortions in the market. Prices of forest products legally harvested by communities are much higher than those of illegally harvested products because the latter do not entail forest charges (Easterling 1997; Seve 1995). Both the government and the environment suffer from the open access condition in the form of lost revenue and forest destruction (de los Angeles and Oliva 1996). "Free riders"–illegal buyers, mercenary processors, and corrupt government officals–take advantage of the open access situation (Ostrom 1991). Considering the very high cost of central enforcement, litigation, deployment of forest guards, and management of "checkpoints" (de los Angeles and Oliva 1996; Hyde and others 1996; Mickelwait, Harker, and Guiang 1999), empowering local stakeholders to effectively and efficiently protect the forests and forestlands is expected to reduce the cost of forest management to government.

Shortage of wood and wood products. With the estimated consumption of wood and related products in the late 1980s totaling 37 million cubic meters (cu m), the Philippines' domestic demand for wood products, fuelwood, and

pulpwood was calculated to increase to more than 76 million cu m by the year 2000 (DENR 1990*)*. The remaining old- and second-growth forests could only supply a total of about 18.5 million cu m of wood by then (Angeles 1999*)*.

For construction timber and related products alone, the average annual demand is around 5 million cu m. Guiang (2000) estimates that this annual demand is being met by (1) the harvest from residual forests, mostly involving existing active Timber License Agreements (TLAs) and local communities (12 percent), plantation forests (1 percent), and coconut farms (15 percent); (2) importation (16 percent); and (3) substitutes and "illegal sources" (56 percent).

This demand is expected to grow by 2 percent to 5 percent per annum (Angeles 1999*)*. The existing residual, old-growth, and plantation forests will not be adequate to meet the projected demand for wood, fuelwood, and pulpwood. Forest plantations, enrichment plantings in inadequately stocked, logged-over areas, and reforested areas are expected to fill the projected demand gap. Thus, only an increase in smallholder tree farming and sustainable management of productive residual forests by communities and the responsible private sector will reduce the supply from "illegal sources." The alternative is much too costly and unsustainable: escalation of importation of wood, fuelwood, and pulpwood from neighboring countries.

***Compromised water supply*.** At least 90 percent of the more than 200 watershed reservations of the Philippines are considered as degraded (DENR-FMB 1998) and most of them are not under any effective on-site management system. These degraded watersheds continue to erode, silt, and dump sediment loads onto major waterways. They threaten coastal areas and coral reefs, endanger the lives of coastal communities, and increase the maintenance costs of social infrastructure and private investments. The tragedy in Ormoc, Leyte, during the early 1990s, in which more than 7,000 people perished in flashfloods, illustrates the disastrous consequences of environmental irresponsibility in the uplands.

Enabling Policies

In 1995, the Philippines officially adopted CBFM as its strategy for sustainable forest management, in recognition of the urgent need for effective action to minimize negative upstream-downstream and on-site-off-site impacts of forest management externalities (Wallace 1993). This policy proclamation was

made through Presidential Executive Order (EO) No. 263, and allied people-oriented policies and programs of the Department of Environment and Natural Resources (DENR). EO 263 identifies forest communities–both upland migrant communities and indigenous peoples, to be represented by their respective people's organizations (POs)–as legitimate resource managers of the nation's forests. The policy includes the mechanism for legitimizing resource access and use rights through the issuance of long-term tenurial instruments, particularly the Community-Based Forest Management Agreement (CBFMA) for upland migrant communities, and the Certificate of Ancestral Domain Claim (CADC) for indigenous peoples. The CBFMA legitimates the migrant communities' rights with respect to the forestlands upon which their livelihoods depend. The CADC recognizes the ancestral claims of indigenous peoples to public forests and forestlands and other natural resource assets therein, as well as their right to peaceably occupy, develop, manage, protect, and benefit from forestlands and resources. The rights of indigenous peoples were further strengthened in 1997 with the passage of the Indigenous People's Rights Act (IPRA or Republic Act [RA] 8371) and its Implementing Rules and Regulations. The IPRA paved the way for the titling and private (individual or communal) ownership of ancestral forestlands. Both the CBFM and the IPRA are predicated upon participatory planning and bottom-up approaches to identifying and articulating communities' resource development, management, and protection strategies.

The CBFM is anchored on current and applicable policies of the Philippine government to (1) democratize access to forests and forest resources, (2) improve the upland communities' socioeconomic condition, (3) decentralize and devolve forest and forestland management, and (4) conserve biodiversity and maintain the environmental services of forests and forestlands to both on-site and off-site communities (see Box 1).

Over the years, CBFM has evolved from a forestry approach that covers only individual/family upland farms or claims into one that encompasses larger forest areas and different land use mixes. CBFM areas now include any or a combination of the following: (1) forestlands that have been planted or areas with existing reforestation projects, (2) grasslands that are quickly becoming the expansion area of upland agriculture, (3) areas with productive residual and old-growth forests, and (4) multiple-use and buffer zones of protected areas and watershed reservations (DENR DAO 96-29; DENR DAO 98-41; DENR DAO 2000-44; Borlagdan 1996; Pulhin 1998).

Box 1. Government policies upholding and influencing CBFM

1987 Constitution: Enjoins the state to enter into co-production, joint venture, or production agreements vis-à-vis natural resource management with empowered communities.

Executive Order (EO) 192 (1987): Reorganizes the environment and the natural resource sector, and mandates the DENR to conserve, manage, develop, properly use, license, and regulate the use of natural resources.

DENR Department Administrative Order (DAO) 123 (1989): Promotes community participation in the rehabilitation, protection, improvement, and management of degraded and productive residual forests, brushlands, virgin forests, and marginal lands.

Local Government Code (LGC) of 1991 or RA 7160: Devolves central government functions, such as the natural resource management functions of the DENR, to local government units (LGUs).

National Integrated Protected Areas System (NIPAS) Act or RA 7586 (1992): Allocates forestlands and forest resources as protected area systems for purposes of biodiversity conservation, habitat preservation, watershed protection, and maintenance of ecological balance.

Executive Order (EO) 263 (1995): Declares CBFM as the country's national strategy for sustainable forest management.

DENR Department Administrative Order (DAO) 96-29 (1996): Provides the Implementing Rules and Regulations of EO 263; paved the way for the granting of resource use rights to communities; and allows the transfer of tenure as well as their limited division through such mechanisms as joint venture and contracting.

DENR Memorandum Circular (MC) 97-12 (1997): Adopts the DENR Strategic Action Plan for CBFM.

Indigenous People's Rights Act (IPRA) or RA 8371 (1997): Recognizes, protects, and promotes the rights of indigenous peoples, and paved the way for the individual or communal titling of ancestral forestlands.

Underlying Assumptions

Taking into account the ecological, social, and policy imperatives mentioned above, the Philippines has pursued the following key strategies through its CBFM program:

1. Provision of tenure security over forestlands to forest communities through stewardship contracts and CBFMAs, and to indigenous peoples through CADCs now convertible under the IPRA into the Certificate of Ancestral Land Claim (CALC) or Certificate of Ancestral Domain Title (CADT);
2. Promotion of sustainable forestry and upland farming practices in a manner that offers both immediate and long-term benefits;
3. Creation of POs, or strengthening of existing ones, in forest-dependent communities, which will serve as recipients of communal tenure, perform the role of overall resource manager, and support the sustainable resource practices of their individual members;
4. Forging of partnerships between and among POs, the national government through the DENR, local government units (LGUs), nongovernment organizations (NGOs), and other private and public groups in order to negotiate resource allocation, coordinate resource use activities, and facilitate the sharing of responsibilities, benefits, and costs of sustainable forest management; and
5. Invitation for NGOs to participate in building the POs' capacity to plan and manage the use of their resources, and to mobilize and monitor their human and financial capital (DENR MC 97-13).

These strategies currently provide the framework for the aggressive promotion of CBFM by the national government. To the extent that NGOs and POs must work with government in their own CBFM efforts, these strategies are expected to influence as well the approaches they employ in realizing the goals and aspirations of CBFM for themselves.

Under the CBFM Strategic Action Plan, community forest management plays a vital role in sustaining the supply of goods and services from natural resources to both on-site and off-site users owing to upstream-downstream interfaces (from upland to coastal areas, including the upper, middle, and lowland portions of the watersheds) and the presence of communities in the upper portions

of the watersheds. The plan upholds a holistic and system approach to managing natural resources with careful consideration of externalities, interdependencies, interconnectedness, and complementarities. Management of the uplands will benefit not only on-site communities but also downstream users of natural resources through sustained water supply; improved water quality; balanced population of prey and predators, thus minimizing damages to crops; reduced siltation in coastal areas; and so on. It is expected that strong and equitable economic activities in the lowlands will discourage migration to the uplands and conversion of fragile areas into cultivated farms.

Forest Resources as Community Assets

Natural timber and minor forest products are regarded as the largest natural resource assets of communities (Laarman, Steward, and Dugan 1995). Based on rough extrapolations using the CBFM sites assisted by the USAID-funded Natural Resources Management Program (NRMP) and the estimates of residual forests within existing TLAs, the 5.3 million ha of CADCs and CBFMAs have at least 1.3 to 1.5 million ha of productive residual forests (Angeles 1999; Guiang 2000; Mickelwait, Harker, and Guiang 1999). Using a conservative estimate of 20 cu m of harvestable natural timber per hectare in residual forests, timber assets in the hands of communities are calculated to be at least 26 million cu m (Guiang and Harker 1998). A complete log ban in the Philippines will have a negative impact on communities because 70 percent of the productive residual forests are under their management.

When communities are granted sustainable and predictable timber harvesting rights over productive residual forests with the least transaction costs, timber becomes their most liquid and immediate natural resource asset, in addition to other minor forest products. The value of timber compared to that of non-timber forest products and the produce of upland farms constitute a much higher proportion of the community's revenues, especially during the early stage of CBFM implementation (Laarman, Steward, and Dugan 1995; Dugan 1989; Dugan 1993). Using a 35-year sustainable cutting cycle, communities can theoretically be allowed to harvest at least 750,000 cu m per year, or about 15 percent of the total annual demand for construction timber in the Philippines (Angeles 1999). With the present average price of timber at P4,500 per cubic meter, this can easily be equivalent to P3.7 billion per year of gross community revenues. Based on this, government forest charges will roughly be P900 million per year (at 25 percent of the freight-on-board [FOB] price).

Communities can benefit as well from other natural resource assets. Aside from such non-timber resources as water, biodiversity, location, and unique physical features, surface water flowing from the upper watersheds has a high but unrealized economic value. In terms of the physical area, upland farms, grasslands, and brushlands (covering roughly at least 60 percent to 70 percent of 5.3 million ha) are probably the largest CBFM assets (Mickelwait, Harker, and Guiang 1999). These are devoted to subsistence farming and may have some potential for the development of tree farms and orchards, and the cultivation of high-value perennial crops. Food production is still the primary focus of farm activities, supplemented by forest product extraction. But in the long term, many communities might turn to agroforestry, smallholder tree farms, orchards, livestock, and rural industries and become less dependent on incomes from natural forests.

Accordingly, the strategic approach to technology transfer, extension services, and community organizing activities entails focusing assistance and capacity building on how the upland farmers and indigenous peoples will adopt productive, protective, and economically viable agroforestry systems (DENR-RRDP 1987; Guiang 1993b, 1993c; Garrity 1999; DENR-UDP 1996; World Bank 2000a). Providing them with access to upland production areas, not to the remaining protected natural forests, will increase the value of existing natural resources, tree farms, and upland farms as economic assets of upland communities. Hence, farm-to-market roads, bridges, water systems, and other social services have the general effect of improving the rural economy and quality of life of the community (Hyde and others 1996; Rice, Gullison, and Reid 1997; EDI, n.d.; World Bank and Rural Development and Natural Resources Sector Unit). General observation and information from the World Bank-assisted Agrarian Reform Community Development Project (2001) indicate that access roads are able to reduce the transport cost of farmers by at least 20 percent to 40 percent.

Tenure and Rights as Foundation of Asset Building

Under the Regalian Doctrine, most forests and forestlands are publicly owned and generally treated as common pool resources (Agrawal and Ostrom 1999; Hyde and others 1996; Arnold 1998; Ostrom 1991). The state provides communities with long-term tenure over forests and forestlands, and recognizes their ancestral domain claims. These "allocations" to communities have been made possible by several administrative and legislative policies (DENR DAO 96-29; Philippine Congress, RA 8371; Pulhin 1998; ESSC 1999a). Increasing

allocations of forests and forestlands to communities represent the "closest approximation of what Philippine forestry should be" (ESSC 1999b).

Community forestry puts communities at the forefront in protecting, developing, and managing their communally held resources covered by such CBFM tenurial instruments as the Certificate of Ancestral Domain Claim (CADC), Certificate of Ancestral Land Claim (CALC), Certificate of Stewardship Contract (CSC), Community-Based Forest Management Agreement (CBFMA), Certificate of Forest Stewardship Agreement (CFSA), and Sustainable Industrial Forest Management Agreement (SIFMA). As of 2000, all instruments accounted for at least 5.3 million ha, or about 17 percent of the total land area of the country, 30 percent of the total public forests and forestlands, and 50 percent of the total CBFM potential area (see Table 1). These figures were considered as still below the CBFM program targets (PWG 1999).

Table 1. Total area of public forests and forestlands covered by CBFM tenurial instruments as of 2000 (thousand hectares)

Instrument	No. of instruments	Area	Period of issuance	Remarks
CADC	181	2,546	As of June 1998	Some 10 percent to 15 percent of all instruments issued had approved ancestral domain management plans (ADMPs).
CBFMA	666	1,971	As of September 2000	Almost all CBFM areas had received external funding from USAID (NRMP), the World Bank (ENR-SECAL), the Philippine-German Community Forestry Program, and ADB (Forestry Loan I and II).
CSC and CFSA	442,124	815	1983 to 1996	Major support for the ISFP came from the Ford Foundation, USAID (RRDP), ADB (Forestry Loan I), UNDP, CARP, and GOP funds.
Total	442, 971	5,332		

Source: DENR (2000a).

The increase in state allocation of forests and forestlands to upland communities and the recognition of indigenous people's ancestral domains happened only in the early 1990s to 1998. The total area of forests and forestlands under the "control" and responsibility of communities (because of their long-term tenure) is 3.8 times larger than that given to the private sector under various instruments. This is a total reversal of the situation in the 1960s and 1970s with one big difference: the forests then were still intact and had high economic value. The area of 5.3 million ha under communities is also larger than the total area of about 4.6 million ha of forests and forestlands that have been set aside for "public good," including protected areas, national parks, sanctuaries, wilderness, and watershed reservations (DENR 2000a; Wallace 1993). Some of the CADCs or CBFMAs awarded to indigenous peoples or legitimate migrants residing in multiple-use zones and buffer zones, respectively, even cover parts of protected areas or watershed reservations (DENR DAO 2000-44; DENR DAO 02, series of 1993; Philippine Congress, RA 8371). This signifies that CBFM is also applicable to "set-asides" like national parks, protected areas, and watershed reservations.

Crucial Role of Support Delivery

The mobilization of support for the communities' efforts toward sustainable forest management is a central feature of the government's CBFM program. Key entities whose support are considered as crucial are the LGUs, NGOs, and other support organizations, as well as the private sector.

Local government units. Consistent with EO 263, LGU participation in CBFM implementation has been clarified, although the devolution of environment and natural resource functions has been partial (Brillantes 2000). Through forest land use planning, DENR DAO 96-29 envisions the DENR and LGUs to jointly "allocate" forests and forestlands through the issuance of CBFMAs, CADCs, and other forest management agreements reviewed and affirmed also by the two parties.

Resource organizations and institutions. The CBFM recognizes the potential contribution of resource organizations or institutions, e.g., NGOs, academic and research institutions, and donor agencies, to the program. These contributions may be direct or indirect, and may be in the form of funding or services.

Private sector. With the inability of government to provide the massive financing necessary to realize the economic goals of CBFM, planners and implementers recognize the need to redirect private sector capital toward the program.

THE RESEARCH

The present study is part of a larger research project that aims to identify and characterize the reported strengths and constraints of community-based natural resource management (CBNRM) approaches in three natural resource areas: irrigation, forestry, and coastal resources. The larger research, in turn, is part of the Ford Foundation's effort to undertake a "critical assessment of the scope and impact of community-based approaches to natural resource management" and to evaluate the "long-term viability of prevailing models and approaches to sustainable development, decentralization, and community empowerment."[1] The objectives of the assessment are as follows:

1. "To enhance the Filipino search for new paradigms of sustainable and participatory development, and
2. To offer critical insights and lessons for those in other countries who will seek to learn from the rich experiences of the Philippines."

Short of asking the question, "Is CBFM solving the twin problems of poverty and resource degradation in the country through empowerment and community participation in forest governance?," this literature review and preliminary assessment study look into CBFM from the perspective of forest governance, community, and sustainability. Field experiences obtained from both primary and secondary sources provide the data with which to answer the more specific questions:

1. To what extent are CBFM goals being met or not being met?
2. What key operational and policy concerns facilitate or constrain community participation in forest governance for sustainable forest management?
3. What possible courses of action can be recommended to effectively address these concerns?

[1]See the Ford Foundation website (http://www/fordfound.org/manila/program.cfm).

Research Strategy

The research for this report was undertaken by teams of consultants and researchers from the Institute of Philippine Culture (IPC) of the Ateneo de Manila University and the Department of Social Forestry and Forest Governance (DSFFG) of the University of the Philippines at Los Baños (UPLB). This covered the period from April 2000 to February 2001.

The teams organized the research into three major overlapping activities. The first was the physical collection of all available published and "grey" literature from various institutions and individuals not only in Metro Manila but also in key CBFM sites in Luzon, Visayas, and Mindanao. The collected literature served as inputs not only for the literature review but also for the establishment of CBFM Reading Rooms at the IPC in Quezon City, and at the DSFFG in Los Baños. This activity was part of a corollary objective to make CBFM information more readily accessible either physically–through the collections at IPC and DSFFG–or virtually, through a CBNRM website commissioned by the Ford Foundation.

To help focus the collection activity and subsequent data analysis, and to validate information from published and grey materials that might already be dated, the team visited sites in which CBFM activities had taken place or were taking place. These visits comprised the second set of activities of the research team. From the knowledge gained through long experience in development and research work on the subject, the researchers categorized known CBFM experiences into three categories based on how these were originally organized, as follows:

1. *Self-initiated sites*, in which community-wide sustainable indigenous resource management systems predated any CBFM interventions in the area;
2. *Locally assisted sites*, in which the growth of CBFM efforts was brought about largely by partnerships with external entities, sponsors, or facilitators such as the LGUs (barangay, municipal, and provincial), local or foreign NGOs, academic or research institutions, and locality-based national government agencies (NGAs), e.g., Philippine National Oil Company (PNOC); and

3. *National program sites*, or all sites in which the DENR implemented various aspects of the CBFM program, including watershed management and protected areas.[2]

The choice of sites to visit was strategic. The teams revisited sites featuring early people- and community-oriented forestry undertakings, particularly those implemented from the early 1980s to the mid-1980s. Some of the consultants either had been involved programmatically in some of the sites or had personal knowledge of these from past field trips. In addition, they had access to background information. Their personal background knowledge, when compared with information from "validation visits," would yield a deeper analysis of CBFM experiences in these sites. A total of 34 CBFM sites were visited, of which 29 generated additional and more complete data from secondary materials and/or key informant interviews.

The third set of activities involved the collation of field data and the more complex task of situating their analysis in the context of the current discourse on community participation, governance, and sustainability. Data were collated primarily to discern patterns of similar and dissimilar experiences within and across site categories, and to explore their possible causes, outcomes, and impacts. Analysis then focused on understanding the issues of community, governance, and sustainability, and situating these issues in the context of the discourse on CBNRM found in the literature. The present report is the result of this activity.

Research Sites

The 29 sites included 5 self-initiated, 9 locally assisted, and 15 national program sites (see Tables 2 and 3). Except three of the five self-initiated sites, all the sites were able to access assistance from NGOs and the government for the implementation of activities related to natural resource management.

Seven of the 29 sites started undertaking community forestry between 1981 and 1989. Most of them were pilot and learning areas of several foreign-assisted projects such as the USAID-funded Rainfed Resources Development Project (RRDP), the Ford Foundation-funded Upland Development Program (UDP), and the World Bank-funded Central Visayas Regional Project (CVRP); and were

[2]According to DENR MC 97-13, CBFM can also be used as a strategy for managing such areas as buffer zones.

closely linked to the DENR Integrated Social Forestry Program (ISFP). Eleven sites began their CBFM activities between 1990 and 1995. A few of them greatly benefited from the emerging and improving policies on community forestry in the Philippines–the shift toward the direction of larger areas that could be covered by various communal tenure instruments, namely, CADC, Community Forest Management Agreement (CFMA), and Forest Lease Management Agreement (FLMA). Further, CBFM activities in some of the sites were launched in response to the LGC of 1991, which devolved the ISFP site to the LGUs. The youngest seven sites were opened to CBFM interventions only after 1995.

Table 2. List of community forestry sites visited and documented

Site	Year started	Key information
Self-initiated		
Ifugao Province (muyong)		Provided by the DENR with resource use permit and assistance in reforestation under ADB Forestry Loan I and II
Sagada, Mt. Province (saguday)		Developed a guide system named Sagada Environmental Guide Association (SEGA) for tourists
Bontoc, Mt. Province (tayan)		Ato system governing the decision making, information transfer, and cultural bonding of the community
Ikalahan, Sta. Fe, Nueva Vizcaya	1974	Stewardship over the Kalahan Reserve conferred to the community through the Kalahan Educational Foundation (KEF), by virtue of CFSA or MOA No. 1, dated 13 May 1974; with assistance from missionaries and funding support from various international organizations in the 1980s and 1990s
Minalwang, Claveria, Misamis Oriental	1996	Latest intervention in the area: awarding of CADC by the DENR to the Higaonon in October 1997, with assistance from the NRMP and the participation of a local NGO in community organizing and CADC and ADMP processing

Table 2 (cont.)

Site	Year started	Key information
Locally assisted		
Barobbob Watershed, Nueva Vizcaya	1992	Initiative based on the implementation of the 1991 LGC; obtained assistance from the GOLD Project and partly from the NRMP
Lantapan, Bukidnon (Landcare)	1997	Obtained assistance from the ICRAF in the dissemination and refinement of the NVS technology
Guba, Cebu City (Mag-Uugmad Foundation, Inc.)	1981	With a farmer-based extension system which started in Guba; obtained initial assistance from World Neighbors in July 1981
Lunga, Valencia (Bukidnon Integrated Farming System Development Project)	1994	With another project (BRWDP) led by Ting Matiao Foundation (TMF) and approved by the Philippine-Australian Community Assistance Project (PACAP)
Malaybalay, Bukidnon (BEST Project-BENRO)	1993	Initiated barely a year after the devolution of ISFP projects to LGUs; started by the Bukidnon Environment and Natural Resources Office (BENRO)
Apolong, Valencia, Negros Oriental	1994	Part of the Banica River Watershed Development Project (BRWDP)
Buhi, Camarines Sur (BLUDPP)	1981	• Implemented with the assistance of the USAID from May 1981 to April 1985 • Key documents: Novick (1984); Seymour (1985)
Senator Ninoy Aquino Kabulnan Watershed, Davao del Sur	1996	• Supported by ADB funds and assisted by the Mindanao Baptist Rural Life Center (MBRLC), which trained farmers in the Sloping Agricultural Land Technology (SALT) • Indigenous cultural community
Don Victoriano, Misamis Occidental	1993	Part of the ENR-SECAL/RRMP sites with World Bank funding; covered by the Mt. Malindang protected area system

Table 2 (cont.)

Site	Year started	Key information
National program		
Mt. Kitanglad National Park, Bukidnon	1996	• Part of the CPPAP site receiving technical and financial assistance from the Global Environment Facility (GEF)-World Bank • NGO assistance to the DENR-PASu in implementing CBFM in the multiple-use zone and buffer zone of the protected area system • With strong LGU support
Magdungao, Passi City, Iloilo	1985	Received technical assistance from RRDP, a USAID-funded project with the DENR, including farmers' training, small contracts for rehabilitation and infrastructure, and on-site project staff
Maasin Watershed, Iloilo	1990	• With assistance from the Ford Foundation, NGOs, and ADB Forestry Loan II • Enjoys strong LGU participation and NGO advocacy support • Watershed of the Iloilo City Local Water District
Bamban, Ayungon, Negros Oriental (CVRP-CFP)	1984	• World Bank-funded CVRP I; implemented from 1984 to 1992 • Became a Community Forestry Program (CFP) site in 1995 under ADB Forestry Loan I • Key document: Dugan (1989)
Bulolacao, Nug-as, Alcoy, Cebu (ISFP/UDP)	1984	• One of the ISFP pilot projects begun in February 1984; partly funded by the Ford Foundation • Key documents: Borlagdan (1987, 1992)
Mt. Isarog National Park	1997	• Started with support from the European Union-NGOs for Integrated Protected Areas (EU-NIPA) • Part of the protected area systems • Participatory protected area management planning ongoing
Labo, Camarines Norte (TKFPI)	1992	• Obtained its CBFMA in 1992 • Project initially funded by ADB Forestry Loan I and assisted by an NGO

Table 2 (cont.)

Site	Year started	Key information
Mat-i, Claveria, Misamis Oriental (CFP)	1992	Started in early 1992 under NRMP Phase I and implemented under CFP with technical and community organizing assistance from an NGO
Upper Bala, Magsaysay, Davao del Sur	1989	One of the pilots of the Ford Foundation-funded and DENR-implemented Upland Development Program from 1989 to 1995
Monkayo, Compostela Valley (NPPFRDC)	1994	• Received initial assistance (community organizing, capacity building, training, on-site technical assistance) from the NRMP in 1994-1999 • The first CBFMA holder in the Philippines that obtained certification on sustainable forestry from the Forest Stewardship Council (FSC), through Smartwood, in November 2000
Kiblawan, Davao del Sur (Kiblawan Agro-forestry Project)	1987	One of the RRDP sites in 1987-1988 with funding support from the USAID for technical assistance, training, inputs, small infrastructure, and rehabilitation contracts
Quirino (CFP)	1993	Part of the Philippine-German Community Forestry Program for Quirino; started in 1993 with funding support from the *Gesellschaft fur Technical Zusarmenarbeit* (GTZ)
Claveria, Misamis Oriental (ASPECTS)	1997	Initiated by the UPLB Institute of Agroforestry with funding support from the Ford Foundation and tie-up with the Misamis Oriental State College of Agricultural Technology (MOSCAT).
Bayombong, Nueva Vizcaya (DENR-ITTO)	1995	With funding support from the International Timber Trade Organization (ITTO) and part of the CBFM program
Claveria, Misamis Oriental (Landcare)	1996	Assisted by the ICRAF; one of the pilot sites in disseminating information on the NVS technology intended to control soil erosion and conserve water

Table 3. Status of CBFM implementation in the 29 community forestry sites as of 2000

Site	Type of organization	Tenure	Resource use rights for timber or non-timber	NGO/GO intervention	Natural resource assets
Self-initiated					
Ifugao Province (muyong)	Family/clan	Usufruct	Present; issuance after approval	Present (GO)	Natural forests, planted trees, water, wildlife, NTFP
Sagada, Mt. Province (saguday)	Clan	Usufruct	Absent	Present (GO)	Natural forests, planted trees, water, wildlife, tourist spots, sacred ground
Bontoc, Mt. Province (tayan)	Clan	Usufruct	Absent	Present (GO)	Natural forests, planted trees, water, sacred ground, wildlife
Ikalahan, Sta. Fe, Nueva Vizcaya	Indigenous people/local foundation	CFLA; CADC applicant	Present; approval of limited timber harvesting rights	Present (NGO)	Natural forests, planted trees and fruit trees, upland farms, sacred ground
Minalwang, Claveria, Misamis Oriental	Clan	CADC	Absent	Present (NGO/GO)	Natural forests (old-growth and residual), upland farms, water, sacred ground
Locally assisted					
Barobbob Watershed, Nueva Vizcaya	PO	Subagreement with LGU	Absent	Present (LGU)	Planted trees, reforestation, upland farms, spring/water
Lantapan, Bukidnon (Landcare)	Small farmer groups	Tax declaration	Absent; individuals can apply	Present (NGO)	Upland farms, planted trees and fruit trees
Guba, Cebu City (Mag-Uugmad Foundation, Inc.)	PO (upland farmers)	CLOA; some without tenure over public land; CBFMA applicant	Absent; individuals can apply	Present (NGO)	Upland farms, planted trees and fruit trees

Table 3 (cont.)

Site	Type of organization	Tenure	Resource use rights for timber or non-timber	NGO/GO intervention	Natural resource assets
Lunga, Valencia, Negros Oriental (PNOC)	PO	Title	Absent; individuals can apply	Present (NGO/GO)	Natural forests (old-growth and residual), planted trees, upland farms, water, NTFP
Malaybalay, Bukidnon (BEST Project-BENRO)	Community (formerly ISFP partici-pants)	CSC	Present for plantation trees after approval	Present (LGU)	Planted trees, upland farms
Apolong, Valencia, Negros Oriental (PNOC)	PO	CSC; CBFMA; title	Absent	Present (NGO/GO)	Natural forests (old-growth and residual), planted trees, water, NTFP
Buhi-Lalo, Camarines Sur (BLUDPP)	Project participants	CSC; some with no tenure over public lands	Absent	Present (GO)	Residual forests, planted trees and fruit trees, upland farms, water
Senator Ninoy Aquino Kabulnan Watershed, Davao del Sur	Barangay	Title	Absent; individuals can apply	Present (NGO)	Fruit trees, upland farms, water
Don Victoriano, Misamis Occidental (ENR-SECAL)	PO	No tenure over public lands (part of the multiple-use zone of the protected area)	Absent	Present (LGU/GO)	Planted trees and fruit trees, upland farms

Table 3 (cont.)

Site	Type of organization	Tenure	Resource use rights for timber or non-timber	NGO/GO intervention	Natural resource assets
National program					
Mt. Isarog National Park, Camarines Sur	Barangay, PO, GO	Protected area, CADC	Absent; individuals can apply	Present (NGO/GO)	Natural forests (old-growth and residual), upland farms, wildlife, water
Mt. Kitanglad National Park, Bukidnon	Barangay	Tax declaration, claims	Absent	Present (NGO/GO)	Natural forests (old-growth and residual), upland farms, water, wildlife, sacred ground
Magdungao, Passi City, Iloilo	PO	CSC; title	Absent; individuals can apply	Present (GO)	Planted trees, upland farms, water
Monkayo, Compostela Valley (NPPFRDC)	PO	CBFMA	Present	Present (GO)	Natural forests (old-growth and residual), planted trees, water, NTFP
Maasin Watershed, Iloilo	Association and PO federation	Applying for CBFMA; claims; tax declarations	Absent; PO can apply	Present (NGO/GO)	Residual forests, planted trees, upland farms, water, NTFP
Bamban, Ayungon, Negros Oriental (CVRP-CFP)	PO associa-tion and federation	CSC; CBFMA; title	Present; issuance after approval	Present (NGO/GO)	Natural forests (old-growth and residual), planted trees, upland farms, forest reserve, NTFP
Bulalacao, Nug-as, Alcoy, Cebu (ISFP/UDP)	Cooperative, PO	CSC; CBFMA	Absent; individuals can apply	Present (GO)	Planted trees and fruit trees, upland farms

Table 3 (cont.)

Site	Type of organization	Tenure	Resource use rights for timber or non-timber	NGO/GO intervention	Natural resource assets
Labo, Camarines Norte (TKFPI)	Cooperative	CSC; CBFMA; title	Present; issuance after approval	Present (NGO/GO)	Residual forests, planted trees, upland farms, water
Mat-i, Claveria, Misamis Oriental (CFP)	PO	CSC; CBFMA	Present; issuance after approval	Present (GO)	Natural forests (old-growth and residual), upland farms, NTFP, water
Upper Bala, Magsaysay, Davao del Sur	PO (formerly ISFP partici-pants)	CSC; applying for CBFMA	Absent; individuals can apply	Present (GO)	Upland farms, planted trees and fruit trees
Kiblawan, Davao del Sur (Kiblawan Agro-forestry Project)	Cooperative, PO	CSC; applying for CBFMA	Absent; individuals can apply	Present (NGO/GO)	Upland farms, planted trees and fruit trees, agroforestry and upland farms
Quirino (CFP)	Cooperative	CBFMA	Present; issuance after approval	Present (GO)	Residual forests, planted trees, upland farms, NTFP
Claveria, Misamis, Oriental (ASPECTS)	PO	CSC; title	Absent; individuals can apply	Present (GO)	Natural forests (residual), upland farms, agroforestry systems, NTFP
Bayombong, Nueva Vizcaya (DENR-ITTO)	Federation of POs	CBFMA	Present; issuance after approval	Present (GO)	Residual forests, planted trees, upland farms, wildlife
Claveria, Misamis Oriental (Landcare)	Small farmer groups	Title	Absent; individuals can apply	Present (NGO)	Planted trees and fruit trees, upland farms

Source: IPC (2001).

CONCEPTUAL FRAMEWORK

Kummer (1992) defines deforestation essentially as the conversion of forestlands to other uses. Two perspectives highlight the causes of deforestation. One popular perspective, offered by the Master Plan for Forestry Development (MPFD), identifies population pressure as the primary factor behind deforestation, followed by the exploitation of forest resources through logging and then by dysfunctional policy and administration (DENR 1990:15-21). Estimates in the mid-1980s placed the upland population at about 14.4 million in 1986 (Cruz and others 1992) and the number of forest dependents at 24 million in the early 1990s (Lynch and Talbott 1995). Cruz (1985) points to the migration of land-hungry lowlanders to the uplands as a key factor in upland population explosion.

A second perspective approaches the issue from the angle of the causes of poverty, which triggers the population problem. Based on this perspective, it is the dysfunctional forest policies and administration that have been largely responsible for deforestation, as such dysfunctions–exhibited by the bias toward industrial logging–foster widespread poverty in the countryside (Kummer 1992; Vitug 1993). The conversion of forestlands into agricultural lands by poor lowland migrant groups has been made possible by the construction of logging roads as well as the culling of big-diameter trees by logging companies. Moreover, the pressure for lowland migrants to invade the uplands stems from inequalities in the lowlands, in which the elite groups capture the vast and rich agricultural resources in a political system that favors only a few. In other words, inequalities in the political system create land-hungry migrants, who are growing rapidly in number (Cruz and others 1992) and who, in order to survive, convert the forests to agricultural lands after the logging companies create the opportunity for them to do so (Kummer 1992; Garrity, Kummer, and Guiang 1993; DENR 1990).

The historical overview in the succeeding chapter shows how varied and strong the reactions are to accelerated deforestation and the upland poverty problem. Since the promulgation of the 1987 Constitution, legislators have been debating whether to impose a total log ban nationwide, or merely strengthen the implementation and enforcement of selective logging practices. EO 263, which declares CBFM as the national strategy for sustainable forestry, cannot be fully and forcefully promoted pending the approval by Congress of a proposed Sustainable Forest Management Act (DENR-CBFMO 1999).

Complexities Surrounding CBFM

The delays in the state legitimation of CBFM notwithstanding, forestland communities and civil society groups have readily embraced the principles of CBFM. However, realization of its environmental, socioeconomic, and political objectives remains a challenge for several important reasons.

1. ***Ecological imperatives.*** Environmental concerns associated with natural resource management necessitate an ecosystems view of the problems of deforestation and poverty. Following the ecological principles of interdependence and interrelatedness of various ecosystems and of ecosystem elements, deforestation has not only on-site and off-site impacts (e.g., siltation of rivers and streams or downstream flooding) but also on-site and off-site causes (e.g., rights of access, markets, political-economic structures). Moreover, it requires having to deal with the "problem of scale" (Fox 1992). This calls for the ability to understand and respond to issues and problems at various levels, whether by social unit (individual, community), geographical unit (smallholdings, common pool resources in watersheds or landscapes), or politico-administrative unit (barangay, municipality, province, region). Responses to the deforestation issue must therefore run the gamut of technical solutions as well as interventions in the areas of individual and organizational behavior, policies, and institutions.

   In addition, ensuring the sustainability of forest resources requires the promotion of resource use practices that enhance, rather than compromise, the carrying capacity of the resource. It entails an appreciation of existing and new technologies that serve this purpose, the tools and social organization needed to practice them, and the self-governing institutions required to enforce them (Ostrom 1999).

2. ***Social imperatives.*** Given a systems context, the causes and consequences of deforestation have an impact on numerous stakeholders, including those living within and outside the ecosystems. Multiple stakeholders make for multiple concerns and contexts that are not only varying but often at odds with one another. Owing to their many uses and the great number of benefits that can be derived from them, forest resources have been magnets for conflicts among groups within and even among nations (Teck Ghee and Valencia 1990).

Consequently, conflicts normally surround forest management, particularly in matters of ownership and reckoning of entitlements to the resource (Bromley and Cernea 1989; Johnson 1997). Intracountry conflicts may occur at different levels: (1) state and community, (2) national and local governments, (3) communities and local governments, (4) communities and local elites, or (5) intracommunity (Morfit 1998; Brillantes 2000).

Clearly, with the vast potential for conflicts, social negotiation and conflict resolution processes are essential to CBFM (DENR DAO 96-29; DENR MC 97-13). Considering the existing inequitable structures, empowerment processes are necessary to level the playing field and allow previously disadvantaged groups, such as indigenous peoples, women's groups, and poor upland farming communities, to negotiate with government and other entities from a position of strength. Such empowerment has been approached from the perspective of community organizing to obtain power not only through numbers but also through capability building (DENR DAO 89-123).

Most importantly, effective CBFM involves collective action of different social units at various levels. Communities that are able to manage their resources sustainably are known to have evolved institutions for collective action (Ostrom 1991) that bring together the interests, resources, ideas, and ideals of many people (Uphoff 1986). Ostrom (1991) identifies eight design principles underlying common property regimes that have been suggested as guides for crafting institutions for local resource management. Fox (1993) summarizes these design principles into two main points: bounding or clearly defining the limits of resource-user groups, and lowering the transaction costs of making and enforcing internal collective decisions.

3. ***Political-economic imperatives.*** According to Firey (1960), resource use behaviors are influenced for the most part by ecology (i.e., what exists in nature), cultural characteristics (i.e., conformity mechanisms, both sociocultural and political), and economics (i.e., market). Of these three, conformity mechanisms and the market are considered as the most significant determinants of resource use behavior. In the economists' language, the margin or difference between public benefits and costs (e.g., increased water supply in the underground aquifers for watersheds

as a result of the preservation of the forest canopy) and private benefits and costs (e.g., profit margin from logging operations) largely determines resource use behavior (McNeely 1988; de los Angeles 1994, 2000). Overexploitation of resources is viewed as a consequence of higher private benefits and low private costs experienced by resource users, and low valuation of public benefits by the users (Hyde and others 1996). It is also seen as an outcome of resource users' perceptions of the certainty of obtaining future benefits from the resource as compared to present benefits (Bromley and Cernea 1989).

This economics perspective elevates the discourse of CBFM to the level of policy and governance. Legitimation of access and utilization rights to resources and provision of tenure security are viewed as key instruments to ensure present as well as future benefits for resource managers (Laarman 1994; Young 1992). Similarly, resource allocation strategies, measures for regulating harvesting costs through forest charges and licensing fees, and other forest regulations determine the amount of benefits that accrue to resource users as well as the transaction costs that they must bear. In the Philippines, for instance, faulty policies such as low valuation of timber and high transaction costs owing to corruption have been linked to deforestation and the decline of the forest industry in the country (Repetto and Gillis 1988; Porter and Ganapin 1988; DENR 1990; de los Angeles 2000).

Asset Building and Sustainability Challenge

Forest resources, like other natural resources, are a form of natural capital that communities and whole nations utilize to meet a variety of daily requirements: food, fuelwood, clothing, construction materials, industrial materials (e.g., resin, *almaciga*), and so on. Especially for poor people, ease of access to these resources is crucial to ensure their survival. From the standpoint of survival, therefore, husbanding and conservation of these resources are essential.

From a more proactive perspective of development, the forests and natural resources which people use and access are assets that must be developed and optimized to their advantage. How this can be done without compromising sustainability is the key challenge.

As indicated in the subsequent chapters, the sustainability issue permeates various natural resource management concerns. One is the knowledge base upon which both the "hard" and "soft" aspects of natural resource management are founded. The "hard" aspect refers to the technology and tools, including the funds for procuring them. The "soft" aspect pertains to the resource users' capacity for participation, organization, management, and governance.

Given that sustainable forest management is largely a collective effort, another concern pertains to the notion of community and the attributes of the resource managers as a community. These influence the type of social organization and institutions that exist or do not exist in resource-using groups. Ostrom (1999) cites certain attributes that are required for communities to organize themselves and undertake collective natural resource management action in a sustainable way, as follows:

- "Salience: Users are dependent on the resource for a major portion of their livelihood or other variables of importance to them.
- "Common understanding: Users have a shared image of the resource and how their actions affect each other and the resource.
- "Discount rate: Users have sufficiently low discount rate in relation to future benefits to be achieved from the resource.
- "Distribution of interests: Users with higher economic and political assets are similarly affected by a current pattern of use.
- "Trust: Users trust each other to keep promises and relate to one another with reciprocity.
- "Autonomy: Users are able to determine access and harvesting rules without external authorities countermanding them.
- "Prior organizational experience: Users have learned at least minimal skills of organization through participation in other local associations or learning about ways that neighboring groups have organized."

Finally, issues of governance provide the context in which community and empowerment can be supported by various groups–the community itself, the state, and other entities–and institutionalized. Policy incentives, reliable and effective support structures, and clear mechanisms for community participation in resource management, governance, and benefits comprise the necessary enabling environment, or the "soft" aspects of natural resource management.

2

HISTORICAL OVERVIEW

Before the arrival of the Spanish colonizers, the forests of the Philippines were considered as communal in nature.[1] The early natives had very high regard for the forests and trees, which were reported to be in abundance then (Sanvictores 1997). Many of them even went to the extent of worshipping the forests. Dominating the landscape were dipterocarp forests, including mangrove swamps, beach forests, molave-narra forests in areas with distinct dry climates and shallow limestone soils, pine forests, and mossy forests in the Cordilleras, Zambales, and Mindoro Island. Most of the settlements, with an estimated total population of less than one million, were found along the rivers and coasts, in which limited contacts among various groups were made primarily by boat (Roth 1983 cited in Poffenberger and McGean 1993). In the uplands, hardy mountain-dwelling people carved out terraces on the steep slopes of the Cordilleras to grow rice for subsistence, or hunted or foraged for food in vast, thickly canopied forests. However, in the 16th century, colonization set into motion the changes that led to the current sad state of Philippine forests.

Based on historical accounts, in 1565, at least 90 percent to 92 percent of the Philippines had forest cover in different islands which later came to be known as the Philippines (Poffenberger and McGean 1993; Sajise and Pacardo 1991). In 1900, forests constituted 70 percent of the total area of the Philippines. Some 50 years later, they accounted for only about 49.1 percent (Garrity, Kummer, and Guiang 1993). And in 1999, forest cover was down to only 18.3 percent (ESSC 1999a). The significant loss of forest cover over the last century has impacted on more than 100 diverse cultures of Filipinos and more than 2 million plant species (Poffenberger 2000).

The central issue in the history of Philippine CBFM is the regulation of access to forests and forestlands. The following narrative begins with the later

[1]This was based on the accounts of Chinese and Spanish chroniclers and the Codes of Maragtas, Sumakwel, and Kalantiao.

part of the Spanish colonization of the country and divides the CBFM history into four periods: the Spanish period, when limited state ownership of forests and forestlands was established; the period of the Philippine Commonwealth under the American regime, when state ownership of forestlands was consolidated; the post-World War II period, when state regulation increased, the timber industry boomed, and plunder and agricultural expansion took place; and the period when democratization in access to forests and forestlands gradually evolved. The discussions on the first three periods were largely adopted from the works of Sanvictores (1997), Poffenberger (2000), Guiang (1993b), Sajise and Pacardo (1991), Lynch (1987), Makil (1982), Garrity, Kummer, and Guiang (1993), and Poffenberger and McGean (1993).

LIMITED STATE OWNERSHIP UNDER COLONIAL RULE (1863-1947)

Aware of the high economic value of forests (particularly natural tropical forests) and forestlands (specifically those with potential for extensive agriculture), the early colonizers had as their main agenda the placing of these resources, including other natural resources especially the minerals of the Philippines, under state control and regulation. In declaring the lands and resources of the colonies as belonging to the King of Spain, the Spanish colonizers claimed ownership over the forests and forestlands. They instituted the Regalian Doctrine, changing gradually the people's attitude toward the forests. The *encomienda* system, which favored a few, was put in place and ignited the process of converting lowland forests to plantations. Over the years, the Regalian Doctrine had become embedded in subsequent policy issuances, burying the issue of landownership and prior claims of indigenous cultural communities. Lynch (1987), however, argues that, despite the Regalian Doctrine, "Spain technically never acquired full sovereignty over the entire archipelago. Conversely, regions inhabited by unconsenting peoples retained their sovereign rights." The author subtantiates his point by mentioning that, in 1670, "less than half [a] million Indios were paying tribute, while twice as many were believed to live outside the colonian realm." This was particularly true in Mindanao, Mindoro, Palawan, Samar, the Sulu Archipelago, the mountains of Northern Luzon, and parts of Panay Island. The Spanish colonization, however, marked the beginning of the continuing loss of ancestral lands under the guise of public domain declarations (Lynch 1982).

Weakening of Customary Laws

As a result of the Spanish land law, "Filipino customary systems of land tenure were weakened" and eventually led to the colonial government's and the local elites' claiming tenure for themselves. This gradually deprived the communal associations of Indios and the indigenous peoples of their rights to their lands (Poffenberger and McGean 1993; Sanvictores 1997). Having lost access to and direct benefits from the forests, most of the natives (especially those that were Christianized and placed under colonial framework in the coastal communities, and in the Luzon and Visayas Islands), waned in their commitment and responsibility toward forest protection and management (Sanvictores 1997; Lynch 1987). Almost the entire central plains of Luzon–and to a large extent, the molave-narra forests in Cebu, Bohol, and Ilocos Region–were cleared during the 1800s because of the expansion of agricultural lands for sugarcane, rice, and corn; the establishment of plantation estates; the boom of commercial activities (timber and ship industry, tobacco flue-curing); and construction of churches (Sajise and Pacardo 1991; Sanvictores 1997; Lynch 1987; Poffenberger and McGean 1993).

Institutionalization of State Ownership

The creation of the forestry bureaucracy and the use of various forest and forestland allocation instruments by the state, such as the *encomienda* system and similar privileges, institutionalized the notion of state ownership of the country's forestlands and forest resources. In 1863, or 10 years after the *Cuerpo des Montes* was established in Spain (Sanvictores 1997), the Spanish colonizers created the *Inspeccion General des Montes* (IGM) to study and promulgate rules for the use of forests and forest products, and to "oversee forestlands" (Poffenberger and McGean 1993). The ensuing decrees involved the classification of commercial cutting in several areas as a criminal offense and the issuance of gratuitous licenses. The IGM facilitated the release to private interests of forestlands that were highly suitable for agriculture.

At the end of the Spanish regime, the Philippines had some 17.5 million ha of forests, of which 0.5 million ha were privately owned (mostly friar lands and covered by Spanish titles) and 17 million ha were highly productive forests under the state, including at least 8.1 million ha of virgin forests (Sanvictores 1997). The Spanish colony had very limited effective control over the archipelago–only a "few Spaniards in 1800 resided more than 15 kilometers from the sea coast" and the "great land masses . . . never really came under Spanish control" (Lynch

1987). Thus, some of the earlier communal forest management practices, such as the *muyong* forests in Banaue, Ifugao, survived the colonial times (Lynch 1987; IPC 2001). Many of the undisturbed communal forests of the indigenous peoples, specifically in areas that were not under the effective control of Spain, still have some of the characteristics of earlier forest management systems.

GEARING UP FOR STATE EXPLOITATION OF FORESTS AND FORESTLANDS (AMERICAN COLONIAL TO PRE-WORLD WAR II PERIOD)

This period started with the defeat of the Spaniards and the ceding of the Philippines to the United States in exchange for US$20 million (Lynch 1987), and ended after World War II, when the Philippine government obtained its independence from the colonial powers. This was marked by the entry of American logging companies, mechanization of logging operations, marketing of few dipterocarp wood, such as the "Philippine mahogany," in the world market, "steady loss of forest throughout the era of American rule" (Poffenberger 2000), continuation and consolidation of the Regalian Doctrine, and introduction of "scientific forest management" in the Philippines. Some of the historical highlights are contained in Box 2.

Box 2. Important events from the American colonial period to the pre-World War II period

1900

The IGM was converted to the Forestry Bureau under the United States Commonwealth Government, with the issuance of General Order No. 50, amended by General Order No. 92 and further strengthened by the Forestry Act of 1904, which affirmed the Regalian Doctrine. In recognition of local needs, however, the Forestry Act allowed residents within or adjacent to the forests to cut or remove from timber concession areas such products as timber and firewood solely for domestic purposes. This Act had the effect of impressing upon communities the state's ownership of forests and forestlands (Makil 1982).

Although the Spooner's Amendment in 1901 initially delayed logging operations (Sajise and Pacardo 1991), the Philippine Commission continued to issue timber licenses, such that between 1 July 1901 and 30 June 1902, some 662 licenses were issued and 10 companies were allowed to harvest 100,000 cubic feet (cu ft) of timber (Lynch 1987). In fact, General Order No. 92 established a licensing procedure.

Box 2 (cont.)

1904

"Modern logging" was introduced, with the Philippine Commission granting the American Insular Lumber Company a 20-year renewable concession covering 30,000 ha in Northern Negros (Poffenberger and McGean 1993). Employing technologies from the United States Pacific Northwest, the company produced 30 cu m of dipterocarp lumber per hour and marketed these as "Philippine mahogany" in the world market.

1917

The Forest Law of 1917, or Act No. 2711, established communal forests and pastures for the use of communities, but still under state control. Nonetheless, some of these were later reclassified as alienable and disposable lands for titling (Makil 1982).

1935

The First Constitution under the independent Philippine Republic was adopted. This was the formal articulation of the Regalian Doctrine by the Philippine government, stipulating that all timberlands "belong to the state." This had several implications for the rights of many indigenous peoples to their claims and lands, especially those areas which had been classified as "timberlands." The formal adoption of the Regalian Doctrine in the 1935 Constitution supported the nationalization of Philippine forests. This move started the erosion and alienation of indigenous peoples' and local communities' right to participate in forest management. Many of the existing communities which had a sense of responsibility over the forests witnessed the exploitation of the forests but were helpless because they did not have legal rights to their lands (IUCN 1996).

1941

Forestry Administrative Order No. 14-1 was enacted. This contained the Revised Communal Forest Regulation that was earlier issued. The Secretary of Agriculture and Commerce set aside communal forests, upon the endorsement of the Director of Forestry and the request of municipal councils. The residents of the municipality were granted the privilege to cut, collect and remove free of charge, forest products for their personal use. The issuance of a gratuitous permit by the Bureau of Forestry was needed, however, for the use of timber in communal forests. Moreover, no protection and management responsibility was imposed on municipalities where the communal forests were located.

During this period, the formerly inaccessible forests were made accessible with the construction of roads using heavy equipment. The issuance of mining permits and the subsequent mining operations destroyed many public forestlands. Lowland forests gave way to agricultural expansion for plantation crops. With the

prewar population growth at only 2.2 percent, the conversion of forestlands for agricultural purposes was attributed more to colonial trade interests than to population pressure. In 1917, for instance, Act 2711 mandated that, "the public forest of the Philippines shall be held and administered for the protection of the public interest, the utility and safety of the forest, and the perpetuation thereof in productive condition of wise use" (Hyman 1983).

The increasing areas of open grasslands and degraded forests became a source of concern during the American regime. Thus, the Forest School at Los Baños, Laguna, was established in 1910, and formally adopted the science of forest management. The government also identified and attempted to undertake reforestation activities in expanding grasslands and brushlands using about 600 species (Glori 1973; Esteban 1985). Shortly afterwards, in 1916, the regime established the Cebu Reforestation Project, followed by projects in Arayat, Ilocos (Caniaw), and Zambales (Magsaysay) in l919; the Cinchona Plantation in Impalutao, Bukidnon; and three more projects up to 1931. Consequently, many foresters considered the period from 1916 to 1931 as the "pilot planting period" because it laid down the foundation of future reforestation activities using several local and exotic species (Esteban 1985). From 1937 until World War II, 35 reforestation projects with a total area of 535,000 ha were established.

In summary, the Philippine Commonwealth government under the American regime consolidated state ownership of forests and forestlands, set up the forestry school at Los Baños, strengthened the government bureaucracy for forestry, started the operation of large-scale commercial timber extraction and processing facilities, and introduced the "Philippine mahogany" in the world market. The issuance of timber licenses indirectly implied that ancestral claims were not part of the equation in the protection and management of forests and forestlands. This period firmed up the power of the state to allocate forests, forestlands, and use rights to the privileged few and local elites (Wallace 1993; Porter and Ganapin 1988). There were vast opportunities for many privileged Filipinos to accumulate forests and land-related assets. Permits to cut were issued without requiring the permittees to plant trees or protect newly harvested areas from encroachers (Wallace 1993). Lastly, this period laid down the foundation for initial practices of licensing, forest regulations, and enforcement procedures related to the protection, management, and development of forests and forestlands.

LOGGING, AGRICULTURAL EXPANSION, AND DEGRADATION: POST-WORLD WAR II YEARS (1947-1982)

With state ownership of forests and timberlands, the powers of allocation, classification, regulation, and management of forests and timberlands remained with the government. The major landmarks of this period were the regulation of access to forest resources and the allocation of forests and timberlands for exploitation by the private sector, watershed reservations, and protected areas. This period was also the height of concessions and TLAs and of extensive agricultural expansion (e.g., pasturelands and mining areas).

Logging and Agriculture

During this time, different interest groups viewed the forests as a highly valuable asset. From the perspective of a new government which just declared its independence, the abundant forests were a natural resource that could be exploited to meet the increasing demand for tropical timber in Japan and the United States, and thereby generate capital to finance reconstruction and accelerate industrialization (Garrity, Kummer, and Guiang 1993). However, there were also many politicians and "well-connected" individuals who regarded the forests as an asset that could allow benefit flows to themselves, which explained why many politicians were also loggers at the same time (Garrity, Kummer, and Guiang 1993). Both perspectives provided the "push" to rationalize and lobby for the massive mechanization of logging that severely exploited the natural forests during the 1950s, 1960s, and 1970s (Sajise and Pacardo 1991; Boado 1988).

The government also adopted the policy of "land for the landless," enacted the Homestead Act, promoted export and import substitution policies (Sajise and Pacardo 1991), and launched the Philippine Selective Logging System (PSLS) in 1953 (Tagudar 1997) as the policy for sustainable forest management. President Magsaysay used agricultural expansion as the major strategy to feed the exploding population but sacrificed, to a certain extent, forest conservation (Fernandez 1997). Land classification by the state intensified (e.g., timberland or alienable and disposable lands).

Bureaucracy Rides High

The Bureau of Forestry crafted complex and bureaucratic regulations to support the PSLS for harvesting and managing natural forests. These regulations were later strengthened with the issuance of the Revised Forestry Code in 1975 (Presidential Decree [PD] No. 705), which created the Bureau of Forest Development with line authority. The issuance of PD 705 put more teeth to the implementation of the Regalian Doctrine and formalized forestry management in the Philippines. Concepts such as multiple-use management, industrial tree plantation, and tree farms began to emerge as policy statements. Even the participation of workers in forestry business operations, through cooperatives, was encouraged. Forestry research was given emphasis with the creation of the Forest Research Institute in 1974. Further, the issuance of PD 1586 (the Environmental Impact System of the Philippines) in 1978 opened limited windows for the participation of communities and stakeholders in implementing public and private projects affecting the environment.

It was during this period that logging boom became a byword in the national economy. The Philippines exploited the forest resources to support its planned industrialization program. The decade of the 1960s saw the timber and forest product industry become one of the top foreign exchange earners in the country. By 1970, forest products had accounted for at least 27 percent of the Philippines' foreign exchange earnings (Cheetam and Hawkins 1976 cited in Hyman 1983). At the same time, the country's population doubled and even tripled, with growth rates ranging from 2.9 percent to 3.1 percent per annum. From 15 million in 1934, it had grown to 48 million by 1980 (DENR 1990). Meanwhile, the forest cover experienced a decline, from over 14 million ha in 1950 to 10.4 million ha in 1969, and further down to about 7.4 million ha in 1980.

Throughout the postwar years, the government used the Regalian Doctrine as basis for allocating forests and forestlands for purposes of extraction or agriculture. The system, however, was abused, given the complications generated by politics, influential businessmen, vested interests, and increasing demand from international markets such as the United States, Japan, and Europe. This condition peaked in the late 1960s and 1970s, when almost 10 million ha of forestlands were placed under concession and TLAs and the total annual allowable cut for timber reached about 11 million cu m. In 1976, for instance, more than 400 licenses, including over 200 TLAs, covered two-thirds of the forests (Wallace 1993). The declaration of Martial Law in 1972 further exacerbated the use of

politics, military, and vested interest groups in obtaining "juicy" concession areas. In fact, one prominent figure during this period obtained more than 200,000 ha of concession areas (Porter and Ganapin 1988; Vitug 1993). Political enemies were punished through cancellation, nonrenewal, or suspension of their concession areas.

Disappearing Forests

Historically, annual deforestation rates were recorded at 100,000 ha in l935, 150,000 ha in 1940-1950, 300,000 ha in the late 1960s, and 100,000 ha toward the beginning of the 1980s. Between 1960 and 1975, the average annual deforestation rate was estimated at 172,000 ha. As a result of the timber boom, about 86 percent of all lands in the public domain were identified as seriously needing rehabilitation. Of the 34 major islands of the Philippines that were heavily forested in 1900, 24 had less than 10-percent forest cover (ESSC 1999a).

Analyses have shown that TLA holders and their logging operations were not solely accountable for deforestation (see, for instance, Garrity, Kummer, and Guiang [1993]; Fernandez [1997]; de los Angeles [2000]; and Carandang and others [1996]). Neither were the loggers and migrant farmers in frontier areas the only ones responsible for the massive deforestation between the 1950s and the late 1970s. From 1970 to 1980, annual allowable cuts and expansion of agricultural activities were positively related to deforestation (Kummer 1990 cited in Garrity, Kummer, and Guiang 1993). Logging operations made the primary forests accessible to the increasing population for slash-and-burn (*kaingin*) farming, agricultural expansion, and illegal logging activities. Many overlogged primary forests were subjected to forest fires and converted to upland farms. Extensive *kaingin* farming in overlogged areas and brushlands brought about at least 60 percent of the forest denudation in the Philippines, while agricultural expansion accounted for at least 30 percent. Extensive logging activities lowered the costs of land clearing by migrants in public lands (Garrity, Kummer, and Guiang 1993). It was even observed that, during the logging boom, many forests were cleared for agricultural purposes rather than for timber extraction. Based on estimates of the private sector, from 1955 to 1985, annual deforestation owing to commercial logging only averaged 9,000 ha per year, while from 1934 to 1985, deforestation owing to forest conversion for agricultural expansion averaged 185,000 ha per year (Sanvictores 1997).

Inequality and Poverty

The increase in population, combined with widespread poverty and inadequate economic opportunities in the industrial and service sectors, continually threatened the conversion of forests to agricultural lands. The highly skewed distribution of fertile lowlands in favor of a few landed elite, followed by an ineffective land reform program and slow pace of industrialization, had forced many rural people to speculate for lands, clear logged-over areas, and eke out a substandard living in the uplands. Hence, agricultural farms in square kilometers almost doubled from 1948 to 1980 (DENR 1990). In the early 1980s, agriculture became the dominant land use, finally surpassing forestry. The decrease in per capita land, from 1.11 ha in 1960 to 0.62 ha in 1980 (Sajise and Pacardo 1991), indicates that arable land for the booming population was becoming more scarce toward the end of this period.

Timber extraction and integrated processing facilities brought about "economic booms" and "islands of prosperity" in many rural areas, especially in Eastern and Central Mindanao, Negros Island, Northern Luzon, and Palawan. This was, however, temporary. As the construction of roads opened up many inaccessible areas, there was an influx of migrants to these areas, affecting the lifestyles and culture of many indigenous peoples, and displacing many of them (Poffenberger 2000). Moreover, major crop infestations frequently devastated agricultural production, particularly in the 1960s and early 1970s. The balance between predator and prey populations caused rodent and locust attacks. Destructive flashfloods and the devastating El Niño phenomenon impacted on infrastructure and food production programs. For instance, "logging in the watersheds of the Pulangi and Agusan Rivers between the 1950s and the 1970s resulted in massive upland erosion and downstream siltation, causing a series of severe floods that left thousands homeless in the 1980s and 1990s" (Poffenberger 2000).

Most LGUs and the population hardly benefited during the timber boom years. The LGUs did not have a share in the forest charges levied on extracted forest products within their political jurisdiction. Most companies were filing corporate taxes in Metro Manila. For the local communities, including the indigenous peoples, the immediate economic benefits were limited to employment opportunities (i.e., as forest guards and guides), social and health services, and improved access (Vitug 1993; Tagudar 1997; Ramirez and Laarman 1993). The Surigao provinces, for instance, in which more than 10 TLAs operated, still

belonged to lower-class categories and had poorer infrastructure facilities, especially roads and bridges. Even the national government experienced loss because forest charges were set at a measly 1 percent to 3 percent of the selling price (Mendoza 1991; Bautista 1992). In addition, there were extensive practices of underscaling, underpricing, and undergrading, giving the TLA holders more incentives and motivations to overcut. In fact, it was argued that the formula for determining the annual allowable cut under the PSLS tended to overestimate cuts in natural forests (Tomboc and Mendoza 1993). Thus, the rich was getting richer while the booming population had to eke out a living in already accessible uplands and forestlands.

Reforestation and Growing Environmental Awareness

Reforestation became a major thrust of the government, with the creation of the Reforestation Administration under RA 2706 in 1960. Government-run reforestation was intensified (Guiang 1991). Communities near the sites of major reforestation projects became workers and laborers. Under the Kaingin Law (RA 3071 of 1963), however, severe penalties were imposed for illegal occupancy and the conduct of *kaingin* activities. At this time, the state recognized only the holders of licenses, agreements, leases, and permits as the legal operators of forests and forestlands. PD 705 and the PSLS required TLA holders to reforest damaged areas, and to protect and manage their residual forests with timber stand improvement (TSI) practices. Some of the more proactive members of the private sector, like Nasipit Lumber Company, Aras-asan Timber Corporation, Paper Industries Corporation of the Philippines (PICOP), and Provident Tree Farms, established reforestation and tree plantations within their concession areas (Guiang 1981). They used major species, including an array of fast-growing hardwood such as *Albizzia falcata*, *Gmelina arborea*, and *Eucalyptus sp*. PICOP pioneered the setting up of smallholder tree farms among upland farmers and occupants near its concession area by providing them with sure market, technical assistance, seedlings, and other inputs. This became a major attraction and influence among upland farmers in the Butuan-Davao corridor (Picornell 1982; Veracion 1979; Sanvictores 1979).

Toward the end of this period, the increasing environmental awareness among young professionals, worsening insurgency in the countryside, growing incidence of flashfloods and deforestation-related natural disasters, and lessening supply of high-quality old-growth timber strengthened the government's argument in the mid-1970s to ban the export of raw logs effective January 1976

(Arevalo, Sanvictores, and de la Rosa 1975). Domestic processing was promoted, and the export of processed forest products was allowed. Many timber companies with sources of raw materials were encouraged to merge with processors. The much-touted sustainability of Philippine natural forests under the PSLS began to be doubted. Tagudar (1997) observed that during the TLA days, sustainability was understood only in the context of timber, rather than the multiproduct system of forest resources. This led Sanvictores (1997) to contend that "the main cause of deforestation is the absence of a policy that would have guided, right from the early days of the forest service, or in the early days of our self-rule, the conservation of our then existing natural forests" through judicious land classification, equitable licensing and scientific management of production forests, conservation of protection forests, and purposeful implementation of the forest-based socioeconomic development of community stakeholders.

Meanwhile, from the mid-1970s to the late 1970s and early 1980s, the notion of community forestry started to emerge from the problems of severe droughts in Sahel and Africa, flooding in Asia, and experiences and initiatives in India, South Korea, Thailand, Tanzania, and, to a certain extent, the Philippines (Arnold 1991). These experiences and deforestation-related disasters influenced the organizers of the 1978 World Forestry Congress to arrive at the theme "Forests for People." The Congress planted seeds in the minds of many participants, who came from the government and private sectors, including foresters from the Philippines.

INCREASING DEMOCRACTIZATION OF ACCESS TO TIMBERLANDS AND FORESTS (1982 TO DATE)

This period started with the issuance of Letter of Instruction (LOI) No. 1260 in 1982, a milestone issuance by President Marcos right after the lifting of Martial Law in 1981. Under this policy, CSCs were granted to legitimate occupants/ claimants of/to upland farms and cultivated areas in timberlands, covering a 25-year period, renewable for another 25 years. Being CSC holders, the occupants were assured of long-term secure tenure over their lands, and were allowed to harvest planted trees, develop agroforestry farms, and undertake sustainable upland agriculture. Several donor agencies, such as the World Bank (CVRP), the Ford Foundation (UDP), and the United States Agency for International Development or USAID (RRDP), used LOI 1260 as the entry point of community forestry initiatives. In these initial years, a number of participatory forest

management approaches, tools, and technologies were developed, tested, and partly institutionalized. Social forestry emerged as a major discipline of study and gained recognition within the state bureaucracy. EO 192 of 1987 formally created the Social Forestry Division within the re-reorganized forestry sector within the DENR.

Birth of Social Forestry

This period largely benefited from the initial seeds of community participation in reforestation and forest protection activities in the early, mid, and late 1970s, such as the awarding of the first Communal Forest Lease Agreement (CFLA) in 1974 to the Ikalahan of Northern Luzon (Drijver and Sajise 1991; Aguilar 1982). Moreover, government began to experiment with programs like the Forest Occupancy Management (FOM) in 1971, followed by the Family Approach to Reforestation (FAR) and Communal Tree Farm (CTF) in 1974 (Llapitan 1979). The Revised Forestry Code, or PD 705 of 1975, was issued, with the provision that *kaingineros* occupying forestlands prior to 19 May 1975 could no longer be ejected from their lands. In 1976, the Program for Forest Ecosystem Management (PROFEM) was launched, involving upland farmers and communities as potential protectors of forestlands (DENR-UDP 1996). During these years, forms of *kaingin* permit and tenure (ranging from 2 years under the FOM to 25 years under the CTF) were issued to forest dwellers and upland occupants. Communities and families were hired to engage in communal tree farming and family reforestation programs. From these earlier experiences with communities in forest protection and rehabilitation and the regulation of *kaingin* farming gradually emerged the Integrated Social Forestry Program of the DENR.

Entry of Civil Society

From the late 1970s to the early 1980s, the academe, several NGOs (e.g., World Neighbors and Mindanao Baptist Rural Life Center or MBRLC in Davao del Sur) started to set up strategies, demonstration areas, and programs to respond to the increasing deforestation, soil erosion, and declining productivity of upland agriculture. The Ford Foundation-funded UPLB Upland Hydroecology Program pioneered a multidisciplinary approach to upland development, with pilot sites in several areas (Sajise 1979). The USAID funded the first major pilot effort toward upland development in the Buhi-Lalo area in the Bicol Region. All this generated key lessons on how to work with upland farmers. These pilots also refined many approaches and techniques in extending soil and water conservation

and upland agriculture technologies to the communities (Novick 1984). In Mindanao, the left (insurgents), for many years, had contributed to raising the level of awareness of the inequity in the allocation of forests and forestlands and the distribution of benefits from forest resources. Seeds were planted in preparation for the active entry and participation of communities in forest and forestland management. Martial Law, however, constrained the accelerated emergence of community forestry in the Philippines.

During the period from 1982 to 1983, classification of unclassified timberlands continued to be a major effort. The government targeted to reduce the area of unclassified public lands to a little more than one million hectares in 1984, with the corresponding increase in certified alienable and disposable lands (DENR-FMB 1998). This land classification scheme was based on the mandate and criteria stipulated by PD 705. Years later, these intensive land classification efforts were found to indirectly marginalize forest occupants and indigenous peoples further because most of their lands fell into the "forestland" category.

Community Forestry Takes Roots

From the Integrated Social Forestry Program in 1982, the emerging concept of community forestry expanded after the EDSA Revolution in 1986 and the issuance of EO 192, a DENR mandate. Between individual household land stewardships (CSC) and community-based tenure agreements (CFSA), most participants preferred the former instrument (Poffenberger and McGean 1993). Thus, only small forestland areas were covered by tenurial instruments. In fact, from 1983 to 1996, the CSC constituted only 814,938 ha (DENR 2000a). The extent of coverage and impact of the ISFP was limited, especially considering that at least 7 to 8 million ha of uplands were under some form of cultivation (Cruz and Zosa-Feranil 1988). The ISFP partly missed the opportunities to bring larger tracts of critical upper watershed forests under community management (Poffenberger and McGean 1993). In addition, most of the ISFP areas were occupied upland farms almost devoid of forest cover and natural forests (Guiang 1991). The initial concept and understanding of the "social forestry" or "community forestry" perspective were largely confined to efforts toward upland farming, family reforestation, communal tree farms, smallholder tree farms, fuelwood and fruit crop production and harvesting, agroforestry systems, and alternative livelihood systems (DENR-UDP 1996; DENR-RRDP 1987; Seymour 1985). This understanding, which intentionally or unintentionally excluded the participation of upland communities in the protection, development, and

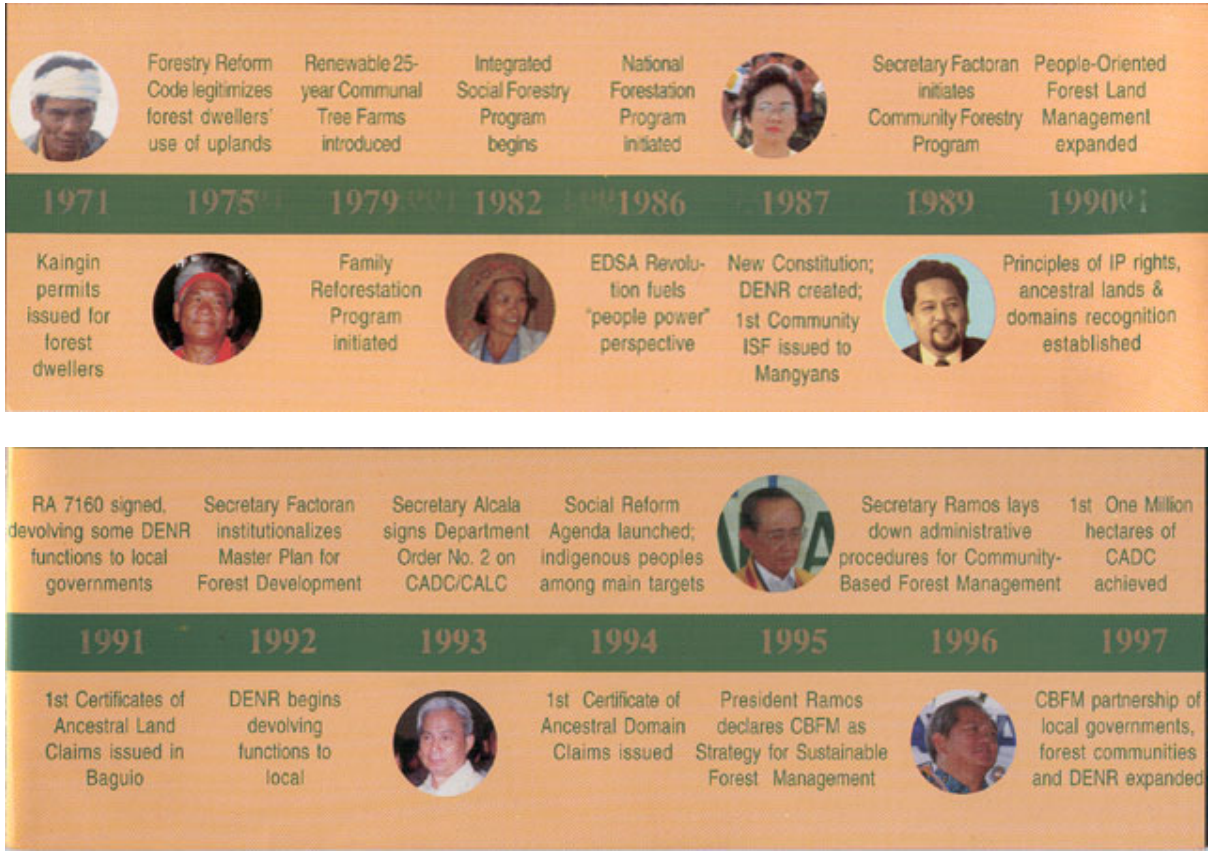
management of existing natural forests, was consistent with the original concept of community forestry, which was largely used interchangeably with the term "social forestry" (Arnold 1991). The Philippines, however, after the EDSA Revolution, took a bolder step in embracing and redefining community forestry (Guiang 1991).

The shift toward community forestry paved the way for communities to apply for communal tenure over larger areas of forests and forestlands, including standing residual and old-growth forests. The EDSA Revolution provided the opportunities for more "pro-people, pro-environment, and pro-social equity forest policies," particularly after the DENR was reorganized in 1987 under EO 192 (Guiang 1996; Dove 1995). Initial experiences and lessons learned from the World Bank-funded CVRP were used in organizing initial attempts to restructure the forest industry in a manner consistent with the principles of social equity and sustainability (Dugan 1989; Guiang 1991).

Emergence and Institutionalization of CBFM

Community-Based Forest Management became the direction with the issuance of DAO 123 in 1989 and the succeeding issuances of DAO 31 in 1991 (FLMA), DAO 2 in 1993 (CADC), and DAO 22 in 1993 (Revised Guidelines for the Community Forestry Program). These policies constituted the implementing arm of the newly completed Master Plan for Forestry Development and the lever to attract external financing from the Asian Development Bank (ADB Forestry Loan I and the Low-Income Upland Communities Project [LIUCP]), USAID (NRMP), United Nations Development Programme (UNDP), *Gesellschaft fur Technical Zusarmenarbeit* (GTZ), Swedish International Development Cooperation Agency (SIDA), and the World Bank (Environment and Natural Resources-Sectoral Adjustment Loan [ENR-SECAL]). With these pronouncements, community forestry in the Philippines gradually expanded and moved from "inhospitable, marginal, *Imperata*-dominated, hydrologically impaired, environmentally fragile, and unproductive upland forest lands" into areas that include productive residual forests, existing forest plantations, and even old-growth forests, with resource use rights given to legitimate and organized communities (Sajise 1985; Guiang 1991, 1993b).

Figure 2 contains the timeline of the emergence and expansion of CBFM from 1982 to the end of the 20th century. Indeed, communities would have been considered as "better off" in terms of their access to lands and forest resources



Source: DENR-CBFMO (1997).

Figure 2. Timeline presentation of key CBFM policies in the Philippines (1982-1999)

under the existing forest policies (see Table 4). Reality, however, depicts an opposite picture. Written policies are hardly translated into realities on the ground (Mickelwait, Harker, and Guiang 1999).

Table 4. Major policies impacting on the protection and management of forests and timberlands in the Philippines*

Policy instrument	Form and year of issuance	Major focus and mandate
Revised Forestry Code	PD 705 of 1975	• Created the Bureau of Forest Development (BFD) with line authority • Mandated the adoption of multiple use, selective logging system, and land classification; delineation of forestlands and industrial tree plantations; identification of key conservation and reforestation strategies; conduct of census; and initial recognition of forest occupants
The 1987 Philippine Constitution	Constitution of 1987	• Adopted the Regalian Doctrine • Mandated the state to undertake on its own the development and utilization of natural resources or enter into co-production, joint venture, or production agreements
EO 192 (Reorganization of the DENR)	Executive Order with legislative and executive powers issued in 1987	• Downgraded the BFD from a line agency to a staff bureau • Mandated the DENR to conserve, manage, develop, properly use, license, and regulate the use of natural resources
LGC	RA 7160 of 1991	Partially devolved some functions of the DENR to the LGUs
National Integrated Protected Area Systems (NIPAS) Act	RA 7586 of 1992	Allocated forestlands and forest resources as protected area systems for biodiversity purposes, preservation of habitats, watershed protection, and maintenance of ecological balance

Table 4 (cont.)

Policy instrument	Form and year of issuance	Major focus and mandate
The Law on Forest Charges on Timber and Other Forest Products	RA 711 of 1993	Mandated the government to increase forest charges for timber and non-timber forest products to as high as 25 percent and 10 percent of FOB prices, respectively
EO 263 (Community-Based Forest Management Strategy)	Executive Order of 1995, with no legislative power, issued in 1995	Mandated the DENR to adopt CBFM as the strategy for sustainable forestry and social justice
IPRA	RA 8371 of 1997	Mandated the government, through the newly created National Commission on Indigenous Peoples (NCIP), to recognize, protect, and promote the rights of indigenous peoples

Source: Guiang (2000).

It is clear in the timeline that CBFM emerged as a major approach to the allocation of forests and forestlands to communities and indigenous peoples with the issuance of EO 263 in 1975 and the passage of the IPRA in 1997. To date, more than 5 million ha of forests and forestlands are in the hands of communities. This is a major turnaround over a period of more than 10 years–from less than 200,000 ha in 1986 (DENR 2000a). Right after the EDSA Revolution, many erring TLA holders were not renewed or cancelled. The 1987 Constitution also took away the power to "classify" public lands into timberlands or alienable and disposable lands from the DENR and gave it to the Philippine Congress. It further specifies that only joint ventures, co-management, and co-production agreements shall be the forms of exploitation and development of natural resources.

ANALYSIS

The convergence of political, economic, environmental, and social issues, along with the rise of environmental movements notably from advocacy NGOs and the media, had resulted in policy shifts toward community-based resource

management, including the focus on biodiversity, ecological-based and landscape-based watershed protection and management, and multiple use of forests and forest resources.

The CBFM legitimized the gradual shift from the "protect, prohibit, and punish" mode of forest management with communities to the "protect, participate, and profit" paradigm (Larsen 2000). It presently functions as a "social fence" and an umbrella for the recognition of individual property rights and claims within the communal tenure (DENR DAO 96-29; Johnson 1997). The CBFMA, as a communal tenurial instrument, particularly provides the communities with some degree of access to and control of forest resources.

With the swing of the pendulum toward CBFM in terms of the allocation and management of forests and forestlands, incentives and rights of communities have improved. These include (1) long-term co-production sharing agreements covering 25 years (renewable for another 25 years); (2) resource use rights over timber and non-timber products, with priority for mineral rights, (3) rights to enter into joint ventures with public or private entities for the development and management of forestlands under their tenure; (4) rights to issue individual property rights within the communal tenure; and (5) rights to transfer claims to next of kin, members of the community, or POs (DAO 96-29; Guiang and Harker 1998). In the case of the indigenous peoples, the IPRA grants the same rights, except that the instruments cover all natural resources within the ancestral domain, have no time frame, and are more or less similar to a private title.

The period from the late 1980s to the 1990s, especially after the EDSA Revolution in 1986, paved the way for advocacy and movement toward pro-people, decentralized, devolved, democratized, and equitable distribution and access to forestlands and forest resources. Many TLAs were cancelled, suspended, and not renewed. Log bans were intensified, particularly in protected areas and environmentally critical forestlands so much so that almost 70 of the 77 provinces in the Philippines were covered by a timber ban (Guiang 2000).

On the policy side, the DENR's mandates (under EO 192 of 1987) continue to be consistent with the Regalian Doctrine but with a propeople and propoor perspective under the 1987 Constitution, the 1991 LGC, and the 1992 National

Integrated Protected Areas Systems (NIPAS) Act. The LGC brought to fore the role of LGUs in forest and forestland management, with the devolution, albeit partial, of key environment and natural resource functions from the DENR to the LGUs (Brillantes 2000). Under the Code, LGUs have a share of at least 40 percent of the collected forest charges within their area of jurisdiction. This mechanism gives the LGUs additional resources for rendering assistance to communities in their practice of sustainable forestry. Tools and processes, such as joint forestland use planning exercises, community mapping, resource valuation, and participatory zoning, are expected to further enhance the interest and participation of LGUs in the pursuit of CBFM (Guiang, Galido, and Balanan 1999).

Under the NIPAS Act, certain portions of the forest were declared protected areas for purposes of biodiversity conservation. Reforestation strategies with NGOs, communities, and LGUs bloomed. Forest policies shifted toward biodiversity protection and conservation, watershed management, multiple-use systems, forest plantations, recognition of indigenous peoples' rights, and empowerment of communities and LGUs. Many of these policies, however, were knee-jerk reactions and tended to correct past inequities.

The DENR's authority is still clearly translated and asserted into four major powers as a means to carry out its vision, mission, and objectives: (1) power to allocate forestlands, (2) power to issue resource use rights, (3) power to title forestlands that have been converted to alienable and disposable lands, and (4) power to issue Environmental Compliance Certificates (ECCs). The main justifications for exercising these powers are as follows: to ensure the sustainable use of forest resources, to protect biodiversity, and to provide equal access to forest resources. However, like any power, there have been cases where these were used to serve vested interests and curtail sustainable development, thus discouraging the entry of other stakeholders in the sustainable protection and management of forests and forestlands in the Philippines. The latest example was when DENR Secretary Cerilles in 1998 unilaterally suspended the resource use rights of communities to harvest and sell timber from residual forests (Mickelwait, Harker, and Guiang 1999). Although the suspension was lifted in March 2000, most of the communities started to doubt the sincerity of the government in carrying out its obligations and commitments under the CBFMA.

Indeed, there are tradeoffs involved in increasing the areas of forestlands and forest resources set aside for "public good." These include the expansion of open access areas, pervasiveness of illegal logging, displacement of workers from the forest products industry, and decrease in household incomes.

CBFM has expanded and continues to address constraints. Tools, approaches, and best practices that will simplify planning, allocation, and accessing of resource use rights have been developed and are being refined to become more responsive to the needs of communities. Participatory Rural Appraisal (PRA), community mapping, multiple inventories, participatory planning, and technology of participation, among others, have gained prominence as approaches and tools of community forestry (Guiang and Harker 1998; ESSC 1998; DENR-UDP 1996).

Promoting community participation is part of the present strategies to curb graft and corruption in forest regulations and to ensure transparency in the allocation process. This will minimize the use of patronage system in the acquisition or renewal of TLAs or in the acquisition of Industrial Forest Management Agreements (IFMAs) by the private sector.

In summary, community forestry started with cultivated uplands in the early 1980s and expanded to encompass grasslands and brushlands, timberlands previously covered by concessions or other leases, and areas claimed by indigenous peoples as part of their ancestral domain, and then to the present multiple-use and buffer zones of declared reservations and protected areas (DENR DAO 96-29; DENR DAO 2000-44). This trend in the breadth and reach of CBFM indicates that communities in forestlands and forest areas, now numbering more than 24 million Filipinos, are the major players in the protection and management of production forests, small-scale production of tree crops, biodiversity protection and management, and even in watershed management.

As of date, the area of more than 5 million ha of forests and forestlands under the stewardship of communities and covered by different kinds of allocation instruments (e.g., CADC, CBFMA, CFSA, CSC, FLMA) is almost four times larger than the total area of forestlands and forest areas under the management of the private sector, i.e., 1.4 million ha, and covered by such

instruments as IFMA, TLA, and PLA (Pasture Lease Agreement). Indeed, the shift toward resource allocation to communities has happened. It will only be a matter of time before the assets (forests and forestlands) entrusted to communities can play a major role in alleviating poverty, conserving biodiversity, and ensuring the sustainable supply of environmental management services.

3

SUSTAINABILITY IN CBFM

The major goods and services from the forests and forestlands as forms of natural capital are water, topsoil, timber, the so-called minor or non-timber forest products, ecotourism or nature-based tourism attractions, and ecological stability resulting from the maintenance of biodiversity and effective on-site management (Poore and others 1998; Young 1992). These emanate from the forests' regulatory, production, carrier, and information functions (Furtado and Belt 2000; Gardner-Outlaw and Engelman 1999; Young 1992; McNeely 1988; NAS 1982). The sound management of forests and forestlands benefits not only the communities on-site or at the margins but also downstream communities through various environmental services (Young 1992; DENR-FMB 1998). For instance, upland farming and indigenous peoples' communities use timber, non-timber products, topsoil, and other products for various household purposes while lowland communities use the goods and services from natural resources in different ways (e.g., fuelwood, irrigation water, food, timber and nontimber forest products) and, probably, on a much more commercialized scale. These two groups depend on surface water and aquifers in intensifying and expanding agricultural production systems, e.g., through irrigation. Urban and coastal areas also rely on forest-based natural resources for many of their needs, e.g., water, fuelwood, timber for housing, non-timber forest products, and the indirect byproduct–protection of lives and key infrastructure from disastrous flashfloods and siltation. Hence, investments in capacitating and training upland communities and farmers in resource management practices promise benefits that improve not only natural capital (like when greater and better topsoil becomes available as a result of soil and water conservation practices) but also financial capital (through improved household incomes brought about by greater farm productivity).

Having as its central theme "assisting the rural poor and the involvement of broader land types, species, and non-forestry activities such as occupational social development" in the forestry context (Rao 1992), CBFM or community forestry features prominently as a strategy for achieving sustainable development, as has been articulated by the World Commission on Environment and Development

(WCED 1987) and the Philippine Strategy for Sustainable Development (DENR-PSSD 1990). Specifically, CBFM is viewed as a strategy for meeting "the needs of the present generation without compromising the ability of the future generations to meet their own needs" (WCED 1987). Assuming that communities have the capacity and resources to manage or improve their natural resources, CBFM is expected to promote asset building among the poor at the forest margins through better or improved management of their natural resource assets (Revilla 1976; Poffenberger 1992; Honadle 1981; Young 1992; Johnson 1998).

"Sustainability," as applied to natural resources, broadly means the capacity of a given area to continue providing, supporting, or maintaining environmental goods and services over a period of time. When applied to forests and forestlands, the concept involves a substance, a time element, and an area (Revilla 1976, 1998; Sinues 1997). The application of this conception of sustainability is referred to in such earlier works as the "sustained yield theory of forest management" (Haley 1966 cited in Revilla 1976). In this application, yield is viewed as a function of "population size, rates of recruitment, catch or harvest, death and competition for food between species" (Young 1992). Substance means the continuity of forest products or outputs which are, more or less, expected to be in equal or larger amounts or volumes. The time element refers to "the periodic interval at which the sustained flow of forest goods and services (not just timber) is reckoned" (Revilla 1976; Sinues 1997; Clawson 1984 cited in Pulhin 1998). The area obviously pertains to the physical coverage or boundary of the planning unit. This highly technical conception of sustainable forest management or sustained yield forestry, however, has been criticized for its failure to ensure the sustainability of forest resources and, in fact, for abetting their rapid degradation (Mather 1990). In many cases, those in charge of managing the forests, i.e., the state by itself or through the logging companies it licenses, have been unable to regulate overcutting or illegal cutting of trees, and have not succeeded in getting cutters to replace the trees they have harvested because of strong economic considerations (Rice and Reid 1997; Leslie, n.d.).

An alternative view of the sustainability issue is presented by the current discourse on decentralization and devolution of natural resources, which views sustainable development primarily as just as much a function of sociopolitical and economic factors as it is of technology (Enters and Anderson 2000). Studies have shown how many development efforts failed largely as a result of the inability to take into account their political-economic and sociological contexts, and the

ignorance of the social organizational resources of communities (Cernea 1991; Blaikie 1985; Dove 1995; Gilmour and Fisher 1991). A large amount of work on common property and common pool resources highlights the great importance of access and tenure rights (Bromley and Cernea 1989; Ostrom 1991) and the legal frameworks that define property rights (Lynch 1992; Lynch and Talbott 1995; Fox 1993) in clarifying the institutional and economic incentives that underpin sustainable or unsustainable resource management. Such work directs the discourse toward the role of indigenous systems (Dove and Rao 1990; Gilmour and Fisher 1991) or self-organizing institutions (Ostrom 1999; Agrawal and Ostrom 1999) in ensuring sustainability.

Specifically, Ostrom (1999; see also Agrawal and Ostrom [1999]) identifies the attributes of natural resources and their users that contribute to the impetus toward self-organization. According to her, communities are likely to self-organize around a resource when, among other reasons, it is highly important to them, its deterioration is beginning to be felt, users trust one another and have a common understanding of the problem, users have the autonomy in making their own rules, and users have prior organizational experience or capacities. Moreover, the likelihood of sustaining institutional arrangements created by self-organizing groups is greatly increased when several design principles are taken into account. These include (1) clearly defined social and physical boundaries; (2) congruence between the benefits and costs of complying with rules; (3) collective-choice arrangements for affected individuals to participate in rule making; (4) existence of a monitoring system and accountability of monitors; (5) enforcement of graduated sanctions (i.e., depending on the seriousness and context of the offense) on rule violators by other users and/or officials; (6) existence of low-cost, locally based arenas of conflict resolution; (7) certainty of communities' rights to organize; and (8) nested enterprises, i.e., appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities organized in multiple layers of nested enterprises.

This chapter delves on these issues of sustainability in CBFM efforts, as can be gleaned from the field experiences in the 29 study sites as well as from other sites or experiences based on the available literature. It is divided into three main sections. The first elaborates on the sustainability and asset-building framework that the researchers consider as both useful and appropriate for the CBFM experience in the Philippines. This provides the structure for the discussion of the research findings, which are presented in the second section. In the third and final

section, the authors attempt to articulate the key issues surrounding sustainability as suggested by the field data and as seen from the vantage point of the sustainability and asset-building framework.

SUSTAINABILITY AND ASSET-BUILDING FRAMEWORK

In addition to providing resource access and tenure, CBFM in the Philippine context follows a two-pronged strategy in line with the preceding discussions: building natural resource assets and strengthening community capacities (Pretty 1999; Ford Foundation 1998; Furtado and Belt 2000; Honadle 1981; Ostrom 1999; Blaxall 1999). Specifically, this involves (1) providing communities and indigenous peoples–the de facto forest managers–with access to forests and forestlands by granting them resource use rights, thereby legitimizing their role as natural resource managers; and (2) developing the capacities of communities for sustainable upland agriculture, forest protection, development, and management (DAO 96-29; DENR MC 97-13). These strategies are expected to motivate communities, LGUs, and members of the private sector to invest their limited resources in increasing food and fiber production, and undertaking forest conservation and protection. National and operational policies are in place for the implementation of these strategies, as embodied in the National CBFM Strategic Action Plan (DENR MC 97-13).

The community's access to "stock," or possession of various human, social, natural, physical, and financial capital, provides a reliable set of sustainability indicators (Markandya 2001; Furtado and Belt 2000; Pretty 1999; Oliver 1998; Ford Foundation 1998; Putnam, Leornadi, and Nanetti 1993; Young 1992). These different assets complement one another and are interconnected. The goods and services from natural resources[1] (as natural capital) can only be sustained over time as communities develop their capacities by carrying out "best practices" or adopting sound on-site forest management regimes and, in the process, generating economic and financial benefits for themselves. Moreover, these have a greater likelihood of sustainability as communities build up their human and financial capital. This capacity and asset-building process can be sustained by an enabling environment in the context of the larger society, and in the form of responsive policies, advocacy, resource-use conflict resolution, key economic infrastructure,

[1]In this paper, the term "natural resources" is broadly used but refers specifically to cultivated uplands (publicly or privately owned), forestlands, and forest resources.

and capacity-building assistance from various service providers (EDI-World Bank, n.d.).

As a community and its members enhance their organizational and financial capacities, they use or engage their various assets in generating economic activities which facilitate social interaction and community cohesiveness. Eventually, the value of these assets either increases, improves, or remains the same over time. Used irresponsibly, one or more of the assets can decrease in value, experience depletion, or face critical threats. For instance, overextraction of forest products or intensive cash cropping in hilly areas to increase financial capital will eventually deplete the stock of fertile topsoil. The community organizations' social capital, which "concerns the informal and formal institutions that govern the actions of individuals within a society," (Furtado and Belt 2000) can also either increase or decrease the value of natural resource assets. Overregulation, community conflicts, higher transaction costs, and "free riders" indirectly result in an overall reduction of economic benefits and an increase in the extraction of natural resource assets. Lack of tenure security and unpredictable resource use rights discourage communities from making long-term investments (Young 1992), deprive them of local sources of revenues to finance their fixed costs as community organizations (Guiang and Harker 1998), and, therefore, bring about negligible asset improvement or abandonment of community management efforts.

Similarly, the values of forests and forestlands as renewable resources themselves can either increase or decrease over time as a consequence of use, management, or abandonment (de los Angeles 1994, 2000; Kopp and Smith 1993; Young 1992). Upland soils and degraded forests can improve with the introduction of appropriate technologies, agroforestry, assisted natural regeneration (ANR), soil and water conservation systems, and other interventions (Mercado, Patindol, and Garrity 2000; Guiang 1993a, 1993b, 1993c; IPC 2001; Friday, Drilling, and Garrity 1999; DENR-RRDP 1987). In turn, extraction beyond limits, failure of the market to capture externalities, institutional failures, and government failure (in enforcement, crafting of appropriate policies, and direction of investments) significantly reduce the asset value of forests and forestlands (de los Angeles 1994).

Access and tenure and capacity building are the specific factors seen to be directly influencing sustainability and asset building in the context of CBFM in

the Philippines. As indicated by the foregoing discussions, capacity building involves the natural resource assets (their capacity to deliver goods and services), the communities (their capacity to manage the natural resources sustainably and effectively), and the sociopolitical environment (its capacity to render the necessary incentives and support to the communities).

Natural Resource Capacity

The natural resource is the "goose that lays the golden egg," specifically in terms of improved topsoil, managed natural and planted forest stands, recharged aquifer, diversified upland farms, and conserved biodiversity, among others. Consequently, the key indicators of natural resource sustainability are (1) restored, maintained, or increasing soil fertility or productivity; (2) restored or improving water-holding capacity; (3) improved or increasing forest cover, either in tree farms, protected natural forests, or agroforestry farms; (5) conserved biodiversity; and (6) maintained or improved environmental services to downstream communities, e.g., quality, quantity, and stability of surface water supply (Johnson 1998; World Bank and Rural Development and Natural Resources Sector Unit). Improvement of natural resource assets augurs higher household income, stable water supply, less use of external inputs, improved microclimate, and environmental benefits to downstream communities.

The capacity of natural resources to sustain the supply of environmental goods and services, reduce on-site and off-site negative impacts, and enhance benefits over time largely depends on their current condition as well as the types and levels of human, social, financial, and physical capital interventions of the resource managers. Specifically, the present state of degradation or productivity of the resources determines their capacity to support food and fiber production, supply water, buffer pests and diseases, and control erosion.

Extremely degraded forests and forestlands, especially those whose renewability are threatened, have very limited capacities to produce goods and services (Young 1992). To be productive once more, they need to undergo rehabilitation and restoration, which require huge public and private investments (Pulhin 1998; UNAC 1992). It is thus unreasonable to expect communities to transform degraded resources into fully productive assets in short notice with the use of ecologically sound forest management practices. Communities endowed with higher-valued natural resource assets (e.g., those with such standing capital

as productive residual forests or existing plantations, available surface water, and fertile soils) have a better starting point than those with poor soils, degraded forests, and impaired aquifers.

Communities can improve the capacity of their natural resource assets through effective on-site management and protection systems–be these indigenous or introduced–natural regeneration of forests, regulated extraction, reduced conflicts in resource use, and linkages with government, service organizations, and the private sector for the needed infrastructure, financial capital, technology, and managerial expertise (Leocadio 1997; Johnson 1997; Blaxall 1999; Hyde and others 1996; Ascher 1995). Hence, stable policies on tenure and resource use rights, access to markets, and investments in rehabilitation directly and indirectly improve the value of natural resource assets (Ascher 1995; Seve 2000).

Incentives, Access, and Tenure

Most communities are not motivated to adopt sound management practices for altruistic reasons (Ostrom 1999), especially if they perceive that they are only being used to benefit downstream communities or other users (Ascher 1995). However, upland communities, just like any other resource-using community, are driven by their basic need to sustain their livelihoods (Friedman and Rangan 1993). Hence, the key question is: "What is in it for me?" This same principle applies to support and service providers, except that with public resources, the official rhetoric such as "for the benefit of the greater society" colors the efforts to capacitate communities toward effective natural resource management.

Incentives

Incentives are specifically intended to incite or motivate government, local people, and other organizations to conserve forest resources. "Incentives and disincentives provide the carrot and stick for motivating behavior that will conserve biological resources" (McNeely 1988). Inducements, a word often used synonymously, involve either direct or indirect incentives. Direct incentives may be in the form of cash or kind. One example of direct incentive in kind is the access to resources in areas where sustainable harvesting is a management objective (McNeely 1988; Laarman, Steward, and Dugan 1995; Dugan 1989).

Indirect incentives include taxes, guarantees (for risks), community development assistance (schools, water system, roads, clinics), training, agricultural production inputs (seeds, seedlings, fertilizer), and access to markets. Taxes and subsidies are important when there is a need to promote production systems such as tree plantations and agroforestry systems that will yield returns in the distant future (Gibbs 1982). Access to markets is an indirect incentive for communities, especially if their CBFM areas are potential suppliers of tree crops, high-value vegetables, and unique natural resource products or tourist attractions, e.g., waterfalls, underground river (Seve 2000; IPC 2001; Laarman, Steward, and Dugan 1995; UNAC 1999; DENR-Region XIII 1998). There are also social incentives to the communities, such as assistance in community organizing for collective action, land tenure, property rights, employment, and information dissemination.

Ascher (1995) observes that the "most basic requirements for motivating people to care for forests responsibly are their current prospects of using the forest profitably and the assurance that they will be able to continue to use the forest in the future." Several authors share a similar view.[2] According to Colchester (1994), incentives for sustainable community forestry involve fulfilling the communities' basic needs, especially food, allowing them to control forests and forestlands, enabling them to have a decisive voice in planning, and letting them represent their own institutions. Communities also need the right to use regulatory power in managing the intensity and location of resource use (Young 1992) and the right to decide on the use and transfer of forest resources (Ascher 1995).

Other key incentives to communities consist of employment or paid work/ participation in various forest management activities, subsidies or grants for starting alternative livelihood systems, contracts for reforestation and rehabilitation activities, socioeconomic and rural infrastructure, health services, access to credit systems, technical assistance, cross-farm visits, awards and recognition, food for work, and opportunities to help other community organizations (DENR-UDP 1996; Seymour 1985; Novick 1984; DENR-RRDP 1987; Dugan 1989; Guiang and Gold 1990; World Bank and ENR-SECAL 2000; Drijver and Sajise 1991; Picornell 1982; McNeely 1988; Sarmiento 1998).

[2]See McNeely (1988); Young (1992); Guiang and Harker (1998); Mickelwait, Harker, and Guiang (1999); Dugan (1989); Laarman, Steward, and Dugan (1995); Cadaweng and others (1999); Sarmiento (1998); and IPC (2001).

At the macro level, policy incentives are needed to support community forestry. Most regulations on resource use are not only driven by local factors, like resource inventory but, most often, by impositions from national policies (Drijver and Sajise 1991; Guiang and Harker 1998; DENR-CBFMO 1999). Some of these regulations cover (1) assigning and defining clear responsibility, authority, and accountability with respect to the approval processes within the technical line agencies and local institutions; (2) strengthening the assistance delivery systems of national line agencies, LGUs, and NGOs; (3) formulating policies on prices, tax benefits, and documentation that favor conservation, e.g., reduced transaction costs; and (4) designing property rights and land tenure arrangements that are more secure, exclusive, and transferable (McNeely 1988; Seve 2000; Williams 2000; Place and Swallow 2000).

Access and Tenure

For community forestry to effect sustainability as well as ensure the well-being of communities, a number of concerns have to be addressed, including the legitimization of rights and resource access, security of tenure, equitable allocation and distribution of resources and benefits, and clarity of individual property rights vis-à-vis collective rights or tenure (Gibbs 1982; Poffenberger 1992; Young 1992; McNeely 1988; DENR-UDP 1996; Dugan 1989; World Bank and ENR-SECAL 2000). With secure tenure and clear resource use rights, local communities will be more willing to invest in long-term permanent and diversified cropping systems, undertake protection and enforcement activities, engage in collective action, and adopt productive, protective, and economically viable upland technologies (Place and Swallow 2000; Seymour 1985; World Bank and ENR-SECAL 2000). Exclusive rights transform forest resources and woodlots into "standing capital" which promises local communities a more sustainable source of financing for their own development planning (Honadle 1981; Guiang 1991; Guiang and Harker 1998; Ascher 1995; Hyde and others 1996).

Along with secure tenure, recognition of individual property rights within the communal tenurial system serves as an incentive for communities to undertake sustainable management (McNeely 1988; Dugan 1989; Seymour 1985; Oposa 1995; Ascher 1995; Johnson 1997; Balanan, Chong-Javier, and Guiang 1999; Gibbs 1982; Dove 1995). Consequently, land tenure generally governs the

use and disposal of land and its products so that the use of the land can be stabilized (McNeely 1988; Mather 1990).

Access and secure tenure over resources have the added impact of increasing the value of the resource. In effect, they encourage sound on-site management and, therefore, sustainable use, e.g., through improved upland agriculture, natural regeneration, or rehabilitation. Security of tenure ensures that the next generation can be as well-off as, if not more prosperous than, the present generation. Recognition of indigenous peoples' and migrants' de facto claims to forests and forestlands addresses intergenerational equity issues (Poore 1998; Hyde and others 1996; Wallace 1993; Poffenberger 1992; Friday, Drilling, and Garrity 1999; McLean and others 1992; Guiang 1993b).

Uncertain access of local communities and absence of management mechanisms in public forestlands will result in a free-for-all or "open access" situation where individuals and groups harvest as much as they can before anyone else can (Bromley and Cernea 1989). In addition to conventional forest exploitation and overharvesting of forests, open access situations significantly reduce the value of forests, plantations, soil, and water as renewable natural resources (Poffenberger 1992; Kopp and Smith 1993; McNeely 1988; Young 1992; de los Angeles 2000; Tomboc and Mendoza 1993). Extraction beyond limits, the inability of the market to capture externalities, institutional failure, and the incapacity of government, particularly in the areas of enforcement, formulation of appropriate policies, and direction of investments, lead to resource degradation and thus to a significant reduction of the asset value of forests and forestlands (de los Angeles 1994). Nonetheless, degradation can be stopped or turned around through sound on-site management, particularly the use of appropriate technologies, agroforestry, ANR, soil and water conservation systems, and other interventions (Mercado, Patindol, and Garrity 2000; Guiang 1993a, 1993b, 1993c; IPC 2001; Friday, Drilling, and Garrity 1999; DENR-RRDP 1987). To facilitate management by local communities, they have to be first provided with access to the forests and the resources therein, and then with secure rights over the use and management of these resources.

Community Capacity Building

Sound natural resource management largely depends on the capacity of communities for collective action and sustainable forest management. The state, as an absentee landlord of forests and forestlands (Hyde and others 1996), does not have enough resources to directly manage these areas. Under CBFM, therefore, the state relies on the capacities of communities for effective natural resource management on-site (Meinzen-Dick and Knox 2001). Thus, the sustainability of natural resource goods and services in community forestry is expected to be a function of existing natural resource management capacities (e.g., folk or indigenous forest management systems) as well as the communities' capacity to learn and apply the technical and organizational knowledge and skills imparted by capacity-building interventions of support organizations (Honadle 1981; Ostrom 1999; La Viña 1999; IPC 2001).

Specifically, capacity building of communities in the context of forest management needs to address their ability to organize themselves into a collective which will (1) provide the direction and rules for all resource utilization and protection activities; (2) assist, monitor, and discipline their members vis-à-vis agreed-upon resource use and management practices, including the protection and development of forests and forestlands; (3) obtain the necessary information and apply appropriate sustainable forest management technologies; (4) organize and mobilize the resources necessary in implementing and managing sustainable enterprises; and (5) deal effectively with conflicts and manage the community organization.

In addition, capacity building must be clearly linked with access to (1) standing capital (resource use rights); (2) subsidies (reforestation contracts, rehabilitation, or employment-generating interventions); and (3) other income-generating activities to finance and encourage collective action such as forest protection and patrolling, strengthening of community organizations, coordination and linkaging activities, and assistance to community members (Dugan 1989; Guiang and Harker 1998; Honadle 1981; Guiang and Gold 1990). It should not be based solely on providing social services or improving management, like when focus is on community organizing alone, because this is unlikely to be sustainable (Honadle 1981).

Role of Support Organizations

The shift to CBFM as the national strategy for sustainable forestry and social justice demands a change in how the government and its institutions, specifically DENR and the LGUs, prioritize organizational resources and deliver the services necessary to support communities in their forest management efforts. However, with forest management being a broad concern that has a wide impact on all sectors, the limitations of government in this regard are acknowledged (La Viña 1999; DENR DAO 96-29; DENR MC 97-13). Hence, members of civil society and the private sector are further encouraged to engage in partnership with government in supporting the communities.

The DENR, LGUs, NGOs, the private sector, and the more organized cooperatives or community organizations will have to join resources together and assist communities, instead of continually harping, or improve regulations to protect the remaining natural resources, increase food and fiber production in the process of rehabilitation, and stabilize/restore degraded natural resources (La Viña 1999; DENR DAO 96-29; DENR MC 97-13; Donoghue 1999; Lu 1998). Support and service providers must have excellent leadership and facilitating skills, analytical capacity, technical forestry competence, and extension/mentoring capability as they assist communities in carrying out their responsibilities of protecting and managing their forests and forestlands. This is crucial in the early stages of CBFM implementation (Biddle and Blaxall 1996; Seymour 1985), especially as the community organizations emerge into forest- and agro-based community enterprises (Guiang 1995).

FINDINGS FROM THE FIELD

Following the sustainability and asset-building framework presented above, this section presents the research findings on the sites visited, with the discussion differentiating the conditions in self-initiated, locally assisted, and national program sites. It consists of five parts. The first focuses on forest management objectives that basically serve as the communities' asset-building framework and reflect an assessment of their natural resource assets. Here, an attempt is made to provide an evolutionary perspective that elaborates on the themes shown in Chapter 2. The second part identifies sustainable forest management practices that communities have adopted in their asset-building efforts. The third tackles the costs to various entities of undertaking sustainable forest management efforts in

consonance with the forest management objectives. This subsection is then balanced by the fourth part, which discusses the incentives and benefits that reportedly accrue to the communities. The fifth, and last, part shows the impacts of these benefits and costs on the community.

Community Resource Management Objectives

The evolution of community forestry in the Philippines has influenced the definition of community forestry objectives. In the 29 sites visited, at least six major natural resource management objectives are highlighted, namely: (1) to stabilize and increase upland production systems; (2) to develop and manage natural and planted forests; (3) to protect and manage watersheds; (4) to promote natural resource management through training and demonstration; (5) to conserve biodiversity; and (6) to promote ecotourism management (see also Table 5). Moreover, with the exception of self-initiated sites, the perception of the project design team, donor agencies, and project implementers have greatly shaped the definition and determination of objectives. In the study sites, the natural resource problems are largely understood and articulated from the perspective of "service providers"–researchers, extension workers, policymakers, specialists, and NGO staff–rather than the communities themselves. In most cases, the project staff facilitated the process of helping communities better perceive, realize, and contextualize natural resource problems by relating these with production, water, health, and other easily understandable events or items.

Earlier community forestry sites consider the reduction of upland poverty or increase in upland productivity, combined with rehabilitation, restoration, protection, and conservation, as their key objectives (DENR-UDP 1996; DENR-RRDP 1987, 1990). The same set of objectives is redefined in later sites, with the addition of biodiversity conservation, sustainability, and people empowerment (Herman and others 1992; Bisson and others 1997; World Bank and ENR-SECAL 2000). Community forestry sites which began in the 1980s are highly focused on agroforestry, upland agriculture, rehabilitation, soil and water conservation, and livelihood-related objectives. In turn, the sites that were initiated in the 1990s have incorporated the conservation of natural forests and the protection of biodiversity. The overall trend in the objectives of community forestry is consistent with how the problems have been defined and how financial resources at the national and local levels have been programmed and allocated over the last 15 years.

Table 5. Resource management objectives

Resource management objectives	Number of sites			
	Self-initiated	Locally assisted	National program	Total
Improvement of upland production systems (upland agriculture, agroforestry, tree farming)	4	8	11	19
Installation of forestry systems for natural and plantation forests (management of residual forests and brushlands for timber and non-timber products, plantation development and management, contract reforestation, fuelwood production and management, food production)	10	13	29	52*
Watershed management (for the use of water for irrigation and domestic purposes)	5	5	10	20
Knowledge promotion and training (training and demonstration)	-	1	1	2
Biodiversity conservation	1	1	2	4
Ecotourism promotion and management (e.g., waterfalls)	3	-	2	5

*The total includes sites visited, aside from the 29, that did not yield complete data (see IPC [2001]).

The dominant objectives among self-initiated sites appear to be the management of residual forests and brushland areas for timber, fuelwood, and water for irrigation and domestic use, and biodiversity conservation. Based on the interviews, most of the indigenous peoples have established forests or are protecting the remaining natural forests to ensure that their headwaters have forest cover and that there is supply of surface water for their irrigated rice farms and domestic needs. They also manage the forests to meet their timber and fuelwood needs, especially during big tribal events. In these sites, the benefits from forest

management are perceived as directly and clearly attributable to the increase in food production and fulfillment of basic needs (Ostrom 1991, 1999; Colchester 1994). This is the case with the *muyong* and the *sagada* communal forests. The off-site environmental benefits in the *muyong* are translated into improved quality and quantity of water flowing into rivers that go to Magat Dam.

In locally assisted and national program sites, the dominant natural resource objectives are the improvement of upland production systems, forest management for timber and non-timber, and watershed protection and rehabilitation for irrigation and domestic use of water. Sites which started in the 1980s show a very strong bias toward objectives related to upland agriculture and soil and water conservation measures because their forests are already badly degraded and largely unproductive to begin with. These objectives are intended to address the significant depreciation of the natural capital base in the uplands and the consequences of declining productivity, worsening food security, and deepening poverty which, by the 1980s, had become national issues (DENR-RRDP 1987; Seymour 1985; Borlagdan 1997; Guiang 1993b; DENR-UDP 1996; de los Angeles 1994).

Most of the earlier community forestry sites, especially the locally assisted and national program sites, include the improvement of upland production systems as one of their key natural resource objectives. The support organizations in locally assisted sites, such as Mag-uugmad Foundation (Guba, Cebu City) and MBRLC (Bansalan and Kabulnan, Davao del Sur), focused their initial efforts and assistance on the areas of food production along with soil and water conservation. These early efforts were concerned with developing technologies that would enhance soil and water conservation while increasing, stabilizing, and diversifying upland agricultural production systems (Sajise 1985). Later, in Lantapan, Bukidnon, the Landcare approach emerged with more simplification and innovation but still focusing on food security and improved productivity of the topsoil (Garrity 1999). This is a clear indication of how communities value food production as part of community forest management (Seymour 1985). Proponents use the loss of topsoil, disastrous flashfloods, and siltation of rivers that endanger coastal resources, dams, and irrigation systems in justifying projects on food production and soil and water conservation.

In the 1980s, the field of agroforestry as a discipline grew and became a major technological approach in working with small upland farmers to develop

their lands (Guiang 1993a; DENR-UDP 1996). The DENR's initial technology package for its Integrated Social Forestry Program was a combination of vegetative and physical soil and water conservation measures. These practices were promoted with the aim of helping farmers increase and stabilize farm income over the years and alleviating poverty. The major initial donor programs supporting this upland production objective were the Ford Foundation and the USAID. The World Bank and the ADB followed, with their huge multilateral funds (Forestry Loan I and II and ENR-SECAL/RRMP, respectively).

The Ford Foundation supported the pioneering research efforts to combine the multiple objectives of upland production system and soil and water conservation under the "UPLB Hydroecology Program." This effort was piloted in several sites (Sajise 1979). The DENR's UDP became a major venue for discussing and formulating innovative policy changes. This was supported by appropriate analyses of a multidisciplinary and interdisciplinary research team from the UPLB, the IPC, and La Salle University; practicing professionals; and selected NGOs (DENR-UDP 1996; del Castillo and Borlagdan 1995; Borlagdan 1993).

Sustainable forest management for timber and non-timber only started in the 1990s with the release of CBFMAs to the communities, which granted them resource use rights over timber and non-timber (Laarman, Steward, and Dugan 1995; Dugan 1989, 1994; Guiang 1991; Guiang and Harker 1998). Subsequently, the objective of biodiversity conservation emerged in national program sites because of donor funds from the World Bank, USAID, EU (European Union), GTZ, and international NGOs. These funds were in response to the growing international concern for the biodiversity resources of the Philippines which were gravely under threat, i.e., one-third of the country's 12,000 plant species were considered as endemic (Heaney and Regalado 1998; Sajise 1997). Generally, the 29 sites did not regard ecotourism and knowledge promotion as highly important.

After the EDSA Revolution, donor groups focused their funding support on the protection and management of natural forests, biodiversity conservation, reforestation, and watershed management. There was less emphasis on communities managing larger forestlands for food production and upland agriculture. The concepts of "social fencing" and management of buffer zones and multiple-use zones by communities became partly embedded in ancestral domain and community forestry programs. Forest policies allowed communities to protect

and manage larger tracts because of the increasing areas of forestlands under open access, especially with the cancellation, suspension, and nonrenewal of TLAs.

Recognition and appreciation of the worsening open access situation led to an increase in the issuance of forest management agreements (e.g., CBFMAs) that covered larger areas of forests and forestlands (Laarman 1994). Most of these had varying sizes and scales. Issues on the optimum scale of the community organizations and its capacity for forest protection and management emerged, especially in the context of spatial considerations, to minimize negative externalities; long-term tenure; resource use rights; the need to set aside more "public goods" (e.g., protected areas and watershed reservations); and the ballooning of the fiscal deficit (Wallace 1993; de los Angeles and Oliva 1996).

Sustainable Forest Management Practices

Consistent with the dominant natural resource objectives in the previous section, local and national support has been given to some communities in the study sites for the development and adoption of practices that will help achieve increased, diversified, and stabilized upland production systems, and sound forest and water management. Accordingly, there has been a preponderance of forest management practices that prioritize upland agriculture and agroforestry, conservation of natural forests, and forest protection (see Table 6). Under upland agriculture and agroforestry, the most prevalent practices, particularly in locally assisted and national program sites, are contour farming, multicropping, and soil and water conservation. These technologies were, in fact, the entry points of extension work and farmer training in many ISFP areas and of the work of NGOs in the uplands. The MBRLC trained many key farmers, leaders, technicians, and NGO workers in the Sloping Agricultural Land Technology (SALT). Mag-uugmad Foundation, with assistance from the Soil and Water Conservation Foundation (SWCF), World Neighbors, the Ford Foundation, and other donors, through their farmer-to-farmer extension programs, promoted the adoption of various sustainable upland farming technologies nationwide. A few groups modified the MBRLC's SALT and World Neighbors' contour ditches, combining soil and water conservation with labor-saving measures and minimizing negative competitions between tree-crop interface to increase agricultural production while conserving soil and water (Garrity 1999; Guiang 1993a). The Landcare approach spearheaded by the International Centre for Research in Agroforestry (ICRAF) in Mindanao thus emerged in response to the need to reduce the labor-intensive

requirement of SALT models and the underlying concern for simplicity and adaptability (Garrity 1999). In addition, governance, extension work, and community organizing were included in the promotion of the new generation of upland technologies.

Table 6. Adoption of sustainable resource management practices

Sustainable resource management practices	Number of sites			
	Self-initiated	Locally assisted	National program	Total
Forest protection (patrolling, management of checkpoints, firefighting, apprehension of illegal encroachers)	4	7	16	27
Conservation of natural forests (selective cutting of timber and non-timber, marketing and transport, thinning, TSI, enrichment planting, seasonal harvesting for biodiversity conservation, natural regeneration, and long fallow period)	12	8	11	31*
Development of manmade forests (plantation establishment and maintenance, nursery management and seedling production, tree-farm development, bamboo plantation)	2	7	9	18
Forest planning and regulation (zoning, resource use allocation, inventory and cutting regulation, water distribution system, participatory decision making, internal control mechanism, audit)	5	2	9	16
Rehabilitation (ANR, control of riverbank and gully erosion, slope rehabilitation)	3	4	10	17
Upland agriculture and agroforestry (SALT, livestock production, multicropping, contour farming, terracing, composting, NVS)	5	21	29	55*

*The total includes the sites visited, aside from the 29, that did not yield complete data (see IPC [2001]).

Sustainable practices for conserving natural forests by communities focus on the selective cutting of timber (both planted and naturally growing trees), thinning and TSI, ANR, and biodiversity conservation. Most of these practices, especially selective cutting and TSI (e.g., forest resource inventory, cutting regulation, enrichment planting, determination of annual allowable cuts, and postharvest inventory for damages), are outright modifications or adaptations of the existing PSLS imposed on communities with timber and non-timber harvesting rights (Tagudar 1997; Tomboc and Mendoza 1993; DENR-NRMP 1999a; Heyde and others 1987).

Forest protection activities against fires, illegal encroachments, and illegal cutting are some of the manifestations of the DENR-determined and prescribed activities in the communities. Apprehending illegal encroachers and patrolling the forest are two of the dominant practices for forest and forestland protection included in the CBFMA provisions. The practice of ANR, despite its potential and cost-effectiveness, has not received adequate attention in the communities (Friday, Drilling, and Garrity 1999). The same thing can be said for the development of smallholder tree farms and plantations, except in cases involving a huge amount of subsidy (e.g., Maasin watershed site).

Other sustainable forest management practices in the community forestry sites are zoning and forest planning, and plantation development and management. Zoning is appropriate for communities in protected areas or watershed reservations. In turn, forest planning and plantation development were introduced under the DENR's huge program on reforestation as part of the contract reforestation initially involving NGOs and LGUs and eventually families and communities with the assistance of NGOs in community organizing activities. Several practices, such as plantation development and maintenance, forest protection, checkpoints, and patrolling, have been reconfigured from previous practices (Guiang 1991).

Costs of Adopting Sustainable Resource Management Practices

In the sites, the costs of sustainable forest management can be viewed from two perspectives: the adoption of sustainable forest management practices by the community and its members, and the promotion of sustainable resource management practices through the CBFM program (see Table 7). Part of the costs

Table 7. Costs of adopting and promoting sustainable resource management

Type of costs	Number of sites			
	Self-initiated	Locally assisted	National program	Total
Costs to the community				
Labor cost	1	5	11	17
Opportunity costs of time spent on attending meetings and learning sessions; and of the marginal value of forests and forestlands	2	3	9	14
Risks in forest protection			1	1
Farm development cost			1	1
Financial loss owing to unprofitable operation		3	1	4
Transaction cost (documentation, checkpoints, application for various permits to sell and transport)			3	3
Costs to the project				
Technical assistance and training cost		9	15	24
Cost of organizing and mobilizing		6	12	18
Cost of rehabilitating natural resources		3	11	14
Cost of the livelihood support system		2	7	9
Cost of social infrastructure (e.g., water system, local checkpoints, farm-to-market roads, nurseries, bridges)		3	9	12
Opportunity costs owing to:				
Logging moratorium			1	1
Delays in or suspension of the issuance of resource use rights		8	5	13
Tribal conflicts and weak capacity of the community for natural resource management			2	2

which the communities incur are the opportunity costs resulting from policy restrictions, delays in processing the application of resource use rights, and internal conflicts within the communities.

Costs to the Community and Its Members

With the availability of project funds, farmers have developed, promoted, and adopted many of the dominant sustainable forest management practices like forest patrolling, plantation development, forest planning, resource inventory, and seedling production. Such activities normally require major financial capital from the communities. Unless the government or the private sector invests its resources in helping communities carry out these practices as part of their community forestry assistance, most communities will not be able to sustain these practices in the long term. As observed during the field visits, after the completion of projects, most farmers concentrate on developing and improving their individual farms and claims. "Collective action" (e.g., forest patrolling, protection, assistance to members) gradually wane owing to the lack of financial resources. Farmers prefer to adopt agroforestry and upland agriculture in their individual farms because it is much easier for them to reap the benefits of their labor this way (Hyde and others 1996). The individualized issuance of CSCs promotes household farm development instead of both communal and individual forest and forestland management. In some sites, there is a growing tendency among community members to be free riders under a communal tenure and resource use rights situation (Ostrom 1991, 1999; Johnson 1997; Balanan, Chong-Javier, and Guiang 1999).

In cases where there are clear communal and individual property rights, i.e., CSCs and predictable resource use rights, forest protection and other collective action and communal enterprises continue beyond the project duration. This observation is validated particularly in sites where individual, not communal, tenure rights have been issued to community members (e.g., Upper Bala and Kiblawan in Davao del Sur; Magdungao in Passi, Iloilo). In sites with communal tenure (e.g., Compostela Valley), the communities have struggled and depended on their savings, volunteer labor, and support from the LGUs and politicians in carrying out their obligation to protect their forests and keep their organization intact, especially during the period when their resource use rights over timber were temporarily suspended. Clearly, there is a need to recognize and formalize individual property rights within communal tenure and resource use rights to

sustain collective action and encourage households to make labor investments in upland farm development (Johnson 1997; Balanan, Chong-Javier, and Guiang 1999).

Under a communal tenure (e.g., CBFMA or CADC), the communities are committed to undertake forest protection activities, assist their members, develop and manage community enterprises (which may be dependent on forest resources), link with support and service providers and resource institutions, and manage their community organizations (DENR DAO 96-29; Guiang and Harker 1998; DENR-NRMP 1999b). In most cases, as validated by the research data, the costs to communities for adopting sustainable resource management practices include labor (sweat capital), time (opportunity costs for attending meetings and learning sessions), risks in adopting other forms of production systems, and financial losses owing to unprofitable operations. The only sources of revenues or inflows to the communities are the sales from resource use rights over timber and non-timber, interest income from savings, credit system (if the community organization has one), income from other community enterprises (cooperative store, marketing assistance), and grants or subsidies from LGUs, NGOs, and other donors. These are important for community organizations to finance their fixed and recurring costs as they fulfill their CBFMA or CADC obligations.

Individually, community members are able to compensate for their losses or costs if their gains from project interventions will eventually redound to higher or more diversified production systems. A diversified production system, for instance, will partly stabilize household cash inflow. At the community level, however, the incentives for members to perform communal obligations should come from the proceeds of community enterprises, e.g., timber sales, contracts, or grants. Otherwise, a "pump-priming" strategy or cost-sharing arrangement is necessary.

Opportunity costs on the part of the communities, as holders of communal or individual tenure, have been identified as one debilitating constraint in community forestry management. These result from delays in the preparation and approval of the application for resource use rights, preparation of complicated documents for harvesting and transport, and unpredictability and instability of operational policies (DAI-NRMP Region X 1999). In contract reforestation or labor-intensive construction of small-scale infrastructure, the preparation of billing documents and the ensuing follow-up work constitute opportunity costs

(Borlagdan 1999). Undefined policies on resource use rights have caused great damages to community organizations, especially the credibility of PO leaders in dealing with their members (Logong 2000; IPC 2001). These policy nuisances disrupt the communities' momentum in protecting and managing their forestlands and forest resources. The presence of uncertainty at the community level fosters mistrust and unnecessary conflict between CBFM communities and the government, and among the community members.

Costs to Projects

The dominant costs to community forestry projects are technical assistance and training, organizing and mobilization of staff and communities, and forest and forestland rehabilitation such as contract reforestation. Technical assistance, in particular, is a major cost in almost all national program sites (DENR-UDP 1996; DENR-RRDP 1990; Mickelwait, Harker, and Guiang 1999). Under multilateral projects, specifically, ADB Forestry Loan I and II and the World Bank's ENR-SECAL program, investments in reforestation, rehabilitation, and infrastructure comprise the greater costs. These, however, are considered as public investments that will eventually generate benefits to both on-site and off-site communities. In sites with projects funded by the World Bank (i.e., ENR-SECAL, RRMP), social infrastructure also forms a significant component of project costs (World Bank-ENR-SECAL 2000). There are likewise cases in which project funds are invested in technical assistance; support for policy analysis and advocacy; capacity building of the DENR, LGUs, and key community leaders; and promotion of microenterprises (Mickelwait, Harker, and Guiang 1999; DENR-RRDP 1990; DENR-UDP 1996).

Incentives and Benefits of Adopting Sustainable Resource Management Practices

Based on the research data, there are at least eight major categories of incentive systems in community forestry management, either direct or indirect (see Table 8). Among them, four are the most predominant in the community forestry sites visited: tenure and resource use rights, supplemental livelihood or cash income from various sources, technical assistance and training, and perceived stable supply of water and forest products in the future. Overall, these findings are consistent with the previous discussion on incentives (Young 1992;

McNeely 1988; Gibbs 1982; Seve 2000; Dugan 1989; Dove 1995; Ostrom 1999; Ascher 1995; Guiang and Harker 1998).

Table 8. Incentives for the adoption of sustainable resource management practices

Incentives	Number of sites			
	Self-initiated	Locally assisted	National program	Total
Security of tenure and resource use rights	1	5	9	15
Supplemental livelihood or cash income (from employment, honoraria, dividends, sales of forest products, income-generating projects, infrastructure contracts, local tourism, and marketing)	2	12	20	34*
Access to credit		1	2	3
Provision of farm/agricultural inputs			3	3
Technical assistance and training	1	11	10	22
Labor exchange (work groups)		1	2	3
Perceived stable supply of water and wood for fuel and construction materials in the future	4	6	10	20
Maintenance of cultural values and religious beliefs	2			2
Cultural acceptability, recognition, and improved social status	1		1	2

*The total includes the sites visited, aside from the 29, that did not yield complete data.

Tenure and Resource Use Rights for Timber and Non-timber Products

In the sites visited, tenure over claimed forests and forestlands is the top incentive. The assignment of forests and forestlands to communities, both migrants and indigenous peoples, for protection and management under the

CADCs and CBFMAs provides them with long-term security and resource access. These eventually generate specific incentives such as stronger sense of ownership (both communal and individual) and the right to enter into contract with the public and private sector for developing portions of the tenured forestlands (DENR DAO 96-29).

All this serves to motivate the communities to conduct forest patrols, delineate individual claims, and join the community organization. Moreover, resource use rights enable them to "monetize" part of the natural resource capital to support their livelihood activities. This is particularly true in sites with productive residual forests like Compostela Valley, Quirino, and Ifugao Province. Resource use rights are also very important for communities with limited income sources such as reforestation contracts, seed fund for enterprises, and employment opportunities (e.g., the Dumagat in Nueva Ecija [rattan gathering] and the Aeta in the Bataan National Park [harvesting and marketing natural stands of bamboo]).

Economic Incentives

The major economic incentives in the sites are employment opportunities, income from sales of forest products, share in profits and dividends, provision of farm inputs, income-generating projects, increased farm production, community organizing, participation in planning, and development contracts (see DENR-UDP [1996]; DENR-RRDP [1990]; World Bank and ENR-SECAL [2000]; and Guiang and Gold [1990]). All this indicates the "presence" of government or NGO assistance and interest in the welfare of the local economy.

These incentives, however, largely depend on the DENR's approval of the application for resource use rights as a form of initial "pump-priming" activities at the community level. Harvesting rights, combined with local on-site processing, have created employment opportunities in many sites (Ramirez and Laarman 1993; Guiang and others 2001). Resource use rights for timber and non-timber forest products have been mentioned earlier as key incentives at the community level (Laarman, Steward, and Dugan 1995; Dugan 1989, 1993; Guiang and Harker 1998). Audit reports of CBFMA holders in Compostela Valley (Quirino) and Lianga (Surigao del Sur) show that the communities have earned adequate revenues from the sale of timber in their productive residual forests (Guiang and others 2001; Abrigana 1998).

Among upland communities, one mechanism used for increasing the community savings rate and strengthening their local credit system is the introduction of labor-intensive public investments such as the construction of farm-to-market roads, bridges, nurseries, and other infrastructure (World Bank and ENR-SECAL 2000; DENR-RRDP 1990; Leocadio 1997). These infrastructure investments link remote production areas to the nearest markets, reduce transaction and transport costs, and thus facilitate the marketing of farm inputs and the dissemination of necessary upland farming technologies. With increased local capital from forced savings among members, some communities have been able to render assistance to their members, particularly in the form of production loans, household enterprises, and emergency loans. The Maasin site in Iloilo is a clear example of how priming funds from contract reforestation activities capitalize the community's need for production loans and support the diversification of the existing agricultural production system.

Incomes from huge local investments (e.g., infrastructure or rehabilitation contracts) magnify CBFM incentives. This process eventually lessens the dependence of some communities on subsistence upland farming or natural timber harvesting. Many initial pump-priming investments in the USAID-funded RRDP sites (e.g., Kiblawan and Passi) generated local employment that has directly benefited the communities and their members who have been able to turn this into capital for improving their individual agroforestry farm production systems (DENR-RRDP 1990; World Bank and ENR-SECAL 2000; DENR-Office of the Regional Executive Director 2000).

Contract funds for infrastructure and rehabilitation, though, are only a shot in the arm of poor communities. Communities should be encouraged to use their wage income from priming activities for reinvestments to further improve food and fiber production and household revenues while increasing the value of natural resource assets. They need to learn how to negotiate for larger amounts from rehabilitation contracts, especially those awarded to outsiders (UNAC 1992). Communities with potential for obtaining resource use rights over planted timber, natural timber, and non-timber forest products, or other resource use fees, are better-off when the issuance of resource use rights is made predictable with lesser documentation and transaction costs. This improves the community cash flow and helps community members organize themselves for production and marketing activities. This was a key lesson from the operations of the SAMMILIA

Federation of People's Forest Development Cooperative, Inc. (Surigao del Sur) and Compostela CBFM sites (Guiang and others 2001; Abrigana 1998).

Increased Social Status of the Community

Increased knowledge, exposure to other sites, improved income, learning from the process of obtaining tenure, recognition of community leadership and initiatives, and cultural acceptability are likewise important incentives of community forestry. Among the self-initiated sites, ownership of the *tayan* and *muyong*, for instance, is considered as part of the status symbol of the community. Among some upland farmers in Guba (Cebu City), being a member of the 41 recognized farmer-instructor groups provides a sense of importance and status (IPC 2001). Similarly, the DENR recognition of the outstanding performance of the community implementing the UDP in Alcoy, Cebu (now a multimillion peso cooperative) has allowed the organization to play a key leadership role in its barangay (DENR 2000a). Key leaders and farmer-trainers who are recognized for their competence do not only serve their community organizations but also help the local government organize neighboring *sitio* and barangays. They, in turn, obtain knowledge and status incentives from project-sponsored and other related travels to other sites.

Transparency and Credibility in the Distribution of Benefits

Although this incentive is not explicitly noted, the inherent capacity of community organizations to formulate rules and regulations for the generation and distribution of incentives among the members appears to be a critical incentive of community forestry. This can be seen in the formulation of criteria for employment, determination of shares from profits and dividends, and participation in training, relending programs, and decision-making processes. (The issue of participation is discussed more extensively in Chapter 5).

The members of the PO's board of directors (BOD), the DENR and LGU leaders, and tribal leaders are seen as the most dominant influences in developing the system of distribution of benefits and other direct or indirect incentives. It is important for them to ensure transparency of the financial management system to encourage community participation in community forestry management. Some of the sites (e.g., Kiblawan, Upper Bala, and Passi) attribute the gradual collapse of their savings and credit system to mismanagement and/or nonparticipation of

other community members. Many of the early problems in several sites stemmed from the lack of sound financial management systems, especially when revenues had to be reported and accounted for.

Impacts of the Incentive Systems

Table 9 lists the impacts of community forestry on the natural resources, community organizations and their members, and service providers in the study sites. There is an overall trend of improvement in natural resource assets brought about by the increased protection of the remaining natural forests, increase in forest cover from tree-farm establishment and agroforestry, and adoption of technologies enhancing soil and water conservation, fertility, and biodiversity. These impacts, however, need further validation in specific sites.

Sustainability of Natural Resources in Providing Goods and Services

Based on the literature and the data generated from the field visits, the major impacts include the direct results of forest protection within tenured areas, increased conversion of grasslands into forested areas, improved water supply, and increased areas of uplands with soil and water conservation measures. These tangible indicators show that community forestry management is increasingly contributing to the sustainability of natural resources with respect to providing goods and services over time. The impacts of improved natural resource management in community forestry are not tangible in the short term; most will become visible and effective only after a few years. In the more mature sites, such as those assisted by the Ford Foundation and the USAID-RRDP in the 1980s and early 1990s, most of the previously degraded forestlands occupied by community members have already been planted to permanent crops, such as trees and fruits, and have established home gardens. These farms have improved biodiversity and microclimate, and reduced topsoil erosion. In the Guba site (Cebu City), for instance, there is evidence of springs coming back to life and not drying up even at the height of the El Niño phenomenon.

Most of the upland farms planted to tree crops (e.g., Upper Bala and Kiblawan in Davao del Sur) are already yielding 10- to 12-year-old plantation trees like gmelina and albizzia. Incidence of forest fires has been minimized owing to the stronger sense of ownership among the communities, whether as individuals or as a community organization. Owners of the *muyong* have

reportedly cultivated their areas to fast-growing species to meet the growing demand of carvers for gmelina wood and other species. In upland farms with soil and water conservation measures (e.g., Guba, Kiblawan, Lantapan and Claveria, and Magdungao), there are indicators of the conservation of topsoil and increase in organic matter content (MBRLC 1999; Garrity 1999; Guiang 1993a). Reduced incidence of illegal cutting and encroachment on public lands is likewise evident in these sites (DAI-NRMP Region X 1999).

Table 9. Major impacts of community forestry

Impact	Remarks/Observations
Natural resources	
Protection of forests (natural and plantation)	Prevalent in all sites, reflecting to a certain extent the increased level of support and incentive system for forest protection and management
Conversion of grasslands into forests (natural regeneration, tree farms, plantations)	Highly visible in earlier efforts to extend agroforestry technologies, especially those areas with delineated individual property rights, e.g., CSCs
Reemergence of springs and stabilized water supply	Quite evident in highly marginal upland farms applying soil and water conservation and agroforestry practices (e.g., Guba, Cebu City; Bulolacao, Cebu; Passi, Iloilo; Upper Bala and Kiblawan, Davao del Sur)
Increased productivity of upland farms as a result of the gradual restoration of eroded soils	Observed and documented by various studies (e.g., Garrity [1999]; Garrity, Kummer, and Guiang [1993]; Watson [1987]; Guiang [1993a, 1993b]; DENR-RRDP [1990]; Seymour [1985])
Biodiversity conservation	• With protected natural and plantation forests • Partly an inference and needing validation • Need to document biodiversity conservation (Sajise 1997)
Socioeconomic	
Increased farm development through the adoption of soil and water conservation and agroforestry technologies	Prevalent in all sites, especially those which started implementing community forestry in the 1980s and early 1990s

Table 9 (cont.)

Impact	Remarks/Observations
Increased local awareness and capacity to perform community-based forest protection activities, including the apprehension of illegal cutters	Can be easily validated in areas with tenure and resource use rights (e.g., Compostela Valley; Mat-i in Claveria, Misamis Oriental)
Increased community participation and PO membership	Quite evident in areas with communal tenure and resource use rights
Increased capacity for resource mobilization and accessing	Fairly evident in more mature sites (e.g., Guba, Cebu City; and RRDP, UDP, and NRMP sites with access to resources from other groups beyond the initial project)
Establishment and maintenance of community training centers, revolving fund, and savings system	Observed in sites assisted in the 1980s and early 1990s and which, therefore, have more mature community organizations
Increased capacity to assist and train other communities and their members	Observed in sites with a strong focus on technology adoption and dissemination using the farmer-to-farmer perspective (e.g., Guba, Claveria and Lantapan, Labo, and RRDP and UDP sites)
Additional and overall increase in household income	• Varied in the sites • Attributed to initial subsidies and agricultural production or sale of forest products • Needing further validation
Service providers	
Increased capacity to assist communities with a deeper understanding of the role of communities, their problems, opportunities, and challenges	More and more government technicians and policymakers, NGOs, professionals, and private sector with a better understanding and capacity to assist communities, compared to 5-10 years ago (see Donoghue [1999])
More responsive national and operational policies	Clearly shown by the sheer number of national and operational policies issued in the last 10 years

Table 9 (cont.)

Impact	Remarks/Observations
Increased capacity for resource mobilization, accessing, and networking	Especially among practicing professionals and field technicians
Increased innovation and generation of appropriate tools and approaches to community forestry	Emergence of an enormous number of "best practices," tools, and approaches in the last 10 years (see Guiang and others [2001])
Institutionalization of training and demonstration centers in support of community forestry	With curricula and training centers for both formal and informal training modules or courses related to community forestry (see Borlagdan [1999] and Borlagdan and Paz [1996])
Increased multidisciplinary approaches to assisting communities	Evolution of community forestry from a purely biophysical perspective to a multidisciplinary discipline that combines the expertise of social, economic, and biophysical professionals
More relevant research results and responsive technologies for dissemination	• Increase in the number of research done on community forestry over the years • Use of many sites as pilot and field research areas of earlier efforts (see DENR-UDP [1996]; Solatre and others [1999]; MBRLC [1999]; and Garrity [1999])

Increased Capacity for Self-organizing toward Forest Management

The capacity of community organizations to protect, develop, and manage their forests and forestlands has reportedly improved and increased over time. This can be seen in the increased membership of POs, more organized and collective efforts toward enforcement and forest protection activities, emergence of community enterprises, increased individual farm development, greater environmental awareness, higher level of trust among members, development of training capabilities among farmer-leaders, and creation and maintenance of community revolving funds. All this can be attributed to the project-related training and community organizing activities implemented in the sites. Further noted is the increased capacity of the community to negotiate with market players,

the DENR, and the LGUs. In Guba, what has sustained the farmers' training center and activities is the external financing from NGOs, LGUs, and national line agencies for the farmer-to-farmer extension and leadership skills training. In Bulolacao, the community has been able to expand its natural resource management and sustainable livelihood capacities through successful sourcing of support from both government and NGOs. This level of success, however, is not shared by other sites such as Magdungao and Kiblawan (IPC 2001).

Some of the more mature community forestry sites (e.g., Guba, Compostela Valley, Lantapan and Claveria, and Kiblawan) have established linkages with various support and service providers after the issuance of tenurial instruments and the completion of externally funded project activities. In the absence of a government program to assist them, several CADC and CBFMA holders have sought support from their respective LGUs for the development of key economic infrastructure. Among those holding individual land tenure, the more proactive and keen technology adopters have developed their upland farms into agroforestry and highly diversified farming systems.

Capacity of Service Providers to be Responsive

The emergence of more responsive national and operational policies on community forestry in the last 15-20 years indicates that many of the key decision makers, policymakers, and professionals in the natural resource sector have been exposed, in one way or the other, to the issues and challenges of community forestry. Many of the community forestry sites were research or pilot sites of earlier externally funded projects. Later on, these sites became the "learning centers" and the training ground of key professionals and leaders in the Philippines (e.g., Guba, Bansalan, Kiblawan, Upper Bala, Magdungao, and Compostela Valley). The professionals who were earlier exposed to the beginnings and challenges of upland development have been slowly influencing the thinking and direction of national leaders in government agencies, academe, LGUs, NGOs, and the private sector with regard to the role of communities in managing the Philippine forests and forestlands. There are also increasing efforts among private and public colleges and universities to complement their highly technical forestry programs with social science courses such as sociology, rural development, enterprise development, and governance. Over the years, some NGOs have established their own training centers (e.g., Kapwa Foundation), linked up with academic institutions, and diversified their "services" to communities.

The capacity of communities to protect, develop, and manage natural resource assets appear to hinge on several factors: (1) effectiveness, sustainability, and commitment of support and service providers; (2) sound environmental governance that is anchored on consensus building, trust, complementation, and convergence of efforts, collaboration, and partnership at the local level; (3) enabling policies on tenure and resource use rights; (4) assistance in strengthening organizational capacities for supporting individual members' sustainable resource management efforts; (5) support for enhancing organizational capacity for financial and organizational management; and (6) tangible and sufficient economic returns of community forestry activities (see Table 10).

Table 10. Major factors affecting sustainability

Factor	Observations/Remarks
Community's capital build-up and saving mechanism	The promotion and establishment of savings and credit systems to accumulate financial assets has not been a major focus in many nationally assisted projects.
Proper and transparent financial management system of the community organization	This reflects the disappointment of many community organizations that have been deeply hurt by cooperative leaders suspected of squandering the POs' financial resources.
Stable tenure and resource use rights	This is among the most dominant factors affecting sustainability in all sites.
Sound management of viable income-generating/livelihood projects	This is another dominant factor affecting sustainability in all sites which can be addressed by the establishment of transparent financial management systems.
LGU support and continued assistance to communities	This is another dominant factor affecting sustainability in all sites.
Opportunities and support for training and cross-farm visits	Most of the earlier "technology-focused" sites find this approach very effective (Seymour 1985; DENR-RRDP 1990; DENR-UDP 1996).
High economic returns of sustainable resource management practices	Considering the high incidence of poverty in the uplands, the need for increased household income is a "higher-level" concern of participating community members (Balisacan [2000]; World Bank [1999]).

KEY SUSTAINABILITY ISSUES

At least five major issues require urgent and concerted action among key players. Most of these overlap with community and governance issues. The issues are discussed here following the perspective that natural resource sustainability is the end product of combined efforts of communities, environmental governance, and external factors that are not easily under the control and influence of the communities or local decision makers. It is sad to note that despite the gains of CBFM at the national policy level (EO 263, IPRA, and NIPAS Act) and the significant increase in forest and forestland areas that have been allocated to communities, many communities have yet to realize specific and sustained socio-economic benefits from the key milestone policies. There is a need for government, NGOs, the private sector, and other stakeholders to mobilize concerted efforts to bring about the benefits of equity-oriented forest and forestland allocation in the Philippines.

Weak and State-dependent Tenure and Resource Use Rights

The current versions of the CBFMA for timberlands not covered by protected area or watershed reservation declarations (under DENR DAO 96-29) and CBFMA protected areas (DENR DAO 2000-44) are so state-dependent that communities cannot move without going through the grind of the DENR's bureaucracy. While land tenure and harvest rights are granted, they are, more often than not, rendered ineffective by the ECC requirement. Moreover, the communities need to have their community resource management frameworks and annual work plans affirmed by the state before they are allowed to economically benefit from the "standing capital" (DENR-NRMP 1999b; Cadaweng and others 1999). Initially patterned after the old timber licensing system, these documents are often too complex for the communities that NGOs, assisting professionals, and consultants often end up producing these for them. There are also bureaucratic expectations and assumptions that communities have equivalent level of capacities and resources with those of the private sector in applying for and obtaining resource use rights, especially for timber and non-timber resources. Finally, the issuance of CBFMAs and CADCs has democratized access to forests and forestlands (the equity perspective), but these documents often become almost irrelevant when the communities' access to resource use rights is curtailed.

To capitalize and generate revenues from the communities' major assets, namely, their lands, labor, water, and whatever available forest resources in their tenured area, the communities have to almost beg the DENR to grant them resource use rights. Even the indigenous peoples are not spared from these bureaucratic regulations (e.g., Compostela Valley site and *muyong* communal forests). Thus, with no subsidies (or external funding support from donors such as the huge reforestation loan from the ADB or the World Bank), communities continue to be tied to subsistence upland farming, plus whatever little income they get from "illegal cutting" in nearby forests which are legally part of their tenured forestlands.

The imperfection of the existing CBFMA tenure rights and the issues regarding the new CADCs have gradually eroded the gains of community forestry management in the Philippines. The state requires the communities to protect and manage their forests and forestlands, but the communities have no "sure" sources of funds for these activities either from national subsidies or internally generated profits. They are expected to put in their "local labor" and "sweat equity" to exercise their ownership over the CBFM areas while tending their cultivated upland or *kaingin* farms. Being the de facto resource managers, they are supposed to protect and manage the forests and forestlands without the equivalent right to regulate their forest utilization activities or to access "rehabilitation" funds to compensate for the lack of internally generated revenues. This dilemma encourages the conversion of the remaining brushlands and second-growth forests into upland farms because the DENR does not regulate the production and marketing of cash crops. As a result, the high economic value of standing timber and non-timber is exchanged with the lower value of upland rice, sweet potato, and corn, given the high transaction costs of accessing and marketing forest products (Hyde and others 1996; Guiang 2000).

The unpredictability and instability of the issuance of resource use rights and the project-dependent support to communities make community forestry the object of great skepticism among upland communities. Already economically weak, most community organizations are further burdened by their commitment and obligation to assist their members, increase membership, and respond to the bureaucratic requirements of the DENR and the marketplace. The government, more often than not, is inutile in the face of such community constraints because it does not provide adequate and well-organized program support to holders of community forestry tenure in forests and forestlands.

This issue has greatly reduced the interest and commitment of many community organizations to stick to their CBFMA obligations. To many, the promised economic benefits from CBFMAs and CADCs exist only in paper. In the absence of economic benefits, they regard the government recognition of individual claims, in the context of larger communal tenure, as the key benefit that CBFM can offer them. This benefit alone has encouraged many claimants to increase agroforestry production using their own labor, capital, and labor-exchange opportunities. Communal tenure has become a means to ensure individual claims. This raises the question: Who are to be responsible for the protection, management, and development of forests and forestlands covered by communal tenure–the DENR or the community tenure holders with very limited rights? Are the ideals of CBFM not fully translated into a doable strategy for the sustainable protection and management of forests and forestlands because the existing incentives (and disincentives) work against these ideals?

Inadequate/Inappropriate Responses to Community Limitations

Despite investments and community organizing efforts, farmer training, and related capacity-building efforts, many community organizations are still relatively weak in carrying out their obligations under the CBFMA or CADC. They still need support and assistance, especially in the areas of organizational management, enterprise development, financial management, field-level technical forestry, and community planning. The limited capacity of community organizations, combined with the DENR's inadequate support system and unpredictable policies on resource use rights, is the weakest link in the full implementation of CBFM (DENR-CBFMO 1999; Biddle and Blaxall 1996; Borlagdan 1999; Tesoro 1999; La Viña 1999; World Bank 2001). Thus, there is a need for continuing joint efforts among LGUs, NGOs, and national line agencies, especially the DENR and the newly formed but still disorganized National Commission on Indigenous Peoples (NCIP). Some skeptics, including key DENR staff and NGOs, however, are using these issues to keep the communities dependent on external support systems.

Communities need the right policy environment and appropriate support system for them to learn, make mistakes, and recover from failures. Most of the fairly successful communities, usually 5-10 years old, have learned from their failures in financial management, conflict resolution, and harvesting and

marketing of agro-based and forest products. Resilience in the face of mistakes and failures should be seen as an indicator of the increasing capacity of POs. Newly established sites, however, need sustained support for their own learning process. Unfortunately, projects do not last long enough to allow this to happen.

In some cases, the limited capacity of many community organizations reflects the "performance-driven" mentality and "contract output" commitment of many NGO organizers and technical assistance teams. The key result area (KRA) system of the DENR encourages the fast-tracking of community organizing efforts. The weak capacity of POs has several implications. There is the issue of scale–size and magnitude of forests and forestlands to be covered by communal tenure. Another is the question of how much resource use rights should be allowed. This is very much related to the issue of overexploitation and sustainability in the context of weak community organizations. Some conservative professionals are raising the need to develop stronger community organizations before giving them resource use rights. Others favor the idea of granting resource use rights as a means to mobilize and encourage the communities to get organized and become cohesive. These varied issues boil down to the kind of continuing assistance that the national government, LGUs, private sector, and NGOs should design and implement to enable the POs to carry out their responsibilities as de facto resource managers. Although CBFM (in its different forms) has been adopted in the Philippines for more than 20 years, the government has yet to craft and implement a responsive, decentralized, and simplified program assistance to the communities. Many of the past and ongoing programs are externally driven, and the DENR, despite the shift in the forestry sector strategy, has not restructured itself as an organization that is fully oriented toward the CBFM strategy. The earlier efforts with the ISFP were dampened after community development organizers were devolved to the LGUs. Similarly, the gains made in the 1990s on the clarification of CBFM goals and strategies are threatened by the vagaries of national policies (Mickelwait, Harker, and Guiang 1999).

Debilitating Project Mode

As many locally and nationally assisted CBFM efforts have been driven by external funds, CBFM has been perceived as a "project" in many circles. This mindset has affected the formulation and development of a long-term perspective in implementing the program. The DENR, the LGUs, and the NCIP have not placed top priority on servicing the needs and requirements of CBFMA and

CADC holders. Limited resources have hampered further assistance to community tenure holders to guide them during the initial implementation of their community resource management plans. Except the institutional support within the DENR's Forest Management Bureau (FMB) for the ISFP, this project perspective has constrained the emergence of CBFM as a national program with its own agenda, action plan, and regular budgetary resources from the national government. This issue has become urgent, especially with the expansion of the CBFM strategy from the ordinary timberlands to watersheds, protected areas, and even coastal areas, particularly mangrove forestlands.

Moreover, most CBFM communities have to metamorphose from social, legal, environmental, and political organizations into community enterprises with active and functional savings and credit systems, members who practice environmentally sound and highly productive agroforestry systems, transparent financial management systems, and systematic assistance to their members in terms of their livelihood concerns. Without adequate corporate income to finance their CBFMA obligations, most CBFM communities are likely to revert back to their ecologically destructive resource use practices. This issue, therefore, demands more predictable and effective assistance from various service providers. The DENR and the LGUs need to sit down and jointly figure out how to support and link communities that are protecting and managing forestlands and forest resources.

Inadequate LGU Involvement

For local governments, CBFM serves as a strategy for enhancing environmental governance and increasing local revenues from land- and forest-based assets. However, at the moment, it is the program that demands more resources from the LGUs than vice versa. With the high cost of forest rehabilitation and protection, as well as capacity building, many CBFM sites require subsidies from local governments if not from the national government.

The partial devolution of environment and natural resource functions to LGUs has discouraged many LGUs from actively participating in CBFM implementation. Related to this, two key issues have yet to be addressed: improving the policy environment so the LGUs will have the right perspectives and incentives, and strengthening the LGUs so they will have the capacity to address natural resource management issues at the local level (World Bank 2001).

Nonetheless, despite political and financial impediments, many proactive LGUs, e.g., Nueva Vizcaya, Sarangani, and Iloilo City (Enters and Anderson 2000), have made a difference in supporting communities in forests and forestlands. Still, these LGUs are more of the exception rather than the rule.

Many LGUs have the political and financial resources to direct socio-economic infrastructure investment to many CBFM communities. However, some of them are not realigning resources in support of CBFM communities because they do not clearly understand their roles and responsibilities with respect to environment and natural resource functions, or do not see clearly the benefits to them (Bernasor and Borlagdan 1999). In addition, the devolution process did not fully empower them with the necessary authority. With greater devolution, especially the joint process (with the DENR) of allocating forestlands to communities, private sector, and other players**,** the LGUs can plan better to support communities with farm-to-market roads, social and health services, and even livelihood grants. The nature of assistance to CBFM communities requires partnership and collaboration arrangements between and among LGUs, national line agencies, private sector, NGOs, and other key organizations (Morfit 1998). The LGUs have to be in the driver's seat, as local integrators, for them to invest in community forestry. Only the LGUs or adjoining LGUs can fully benefit, as on-site and off-site community stakeholders, from the immediate natural resource impacts of well-managed forests and forestlands by the communities, especially if these areas are located in the same watershed or ecological region.

Marginalized Private Sector

In community forestry, the roles of the private sector have not been fully defined and delineated. The DENR still holds the key with respect to CBFM implementation. Although existing policies allow joint ventures and outgrowers' contract with CBFMA and even CADC holders, the private sector has always been hesitant to enter into business arrangements with communities because of policy uncertainties, high monetary costs, potential resource use conflicts, and the high-risk nature of forestry investments (Lu 1998; Johnson 1997; Blaxall 1999; Mickelwait, Harker, and Guiang 1999). This is an area where the DENR, the NGO community, the LGUs, and the socially responsible private sector can discuss and identify strategies that will promote community-private sector partnership, especially in accessing technologies, certifying sustainable forestry,

conducting managerial skills training, accessing working capital, and dealing with markets.

The CBFMA and CADC forests and forestlands offer great utility for producing high-value plantation crops, establishing tree plantations, setting up nature-based tourism, constructing processing facilities, and initiating other potential enterprises that will generate revenues for the local economy. The residual forests of tenure holders, in addition to those covered by the remaining TLAs, are currently the only legitimate local sources of high-value timber. With international forestry certification by the Forest Stewardship Council (FSC) and NGO and government assistance, it is hoped that the CBFM communities will qualify for less regulation from the DENR and can easily access and link with markets and processors (Viana and others 1996; FAO 1995; Kiekens 1995; Johnson 1998). This is a potential area of assistance to communities that are committed to the protection and management of their forests and forestlands in a sustainable manner.

The increasing demand for plantation timber even among local wood processors provides a great income opportunity for CBFM communities, especially those with existing forest plantations in their areas. The widening gap between supply and demand in the local wood industry will continue to be met by existing plantations, limited supply of natural timber, substitutes, imports, and other sources (Guiang 2000). CBFM communities with long-term perspectives, particularly those that are able to enter into outgrowers' contract arrangements, will be able to tap into this market.

Lastly, forestlands–brushlands and grasslands–of many communities are among the remaining expansion areas for the development of high-value commercial plantation crops, including tree crops (World Bank 1999). The existing CBFM policies (with some refinements) will allow communities to enter into joint ventures with the private sector for the development of these uplands. The move toward this direction, however, requires a combination of stable policies, reduced transaction costs, appropriate design and implementation of effective incentives, availability of long-term production loans, investments in infrastructure, private sector participation, and deliberate and concerted efforts toward technology extension and dissemination by concerned national line agencies and LGUs. Without such support, these well-intentioned policies will come to naught.

4

COMMUNITY

The massive and unrestrained forest diminution, coupled with increasing upland poverty and glaring inequity in resource access and distribution, had forced scholars, policymakers, and practitioners to reconsider the role of the community in forest management (see Chapter 2 for elaboration on this). As a result, a new forestry paradigm popularly termed as "community forestry" was born (Gilmour and Fisher 1991; Rebugio 1997a). Departing from the previous notion, which considered communities as culprits of forest destruction, the new paradigm brought to fore the capacity of communities to advance a more sustainable and equitable forest resource management. So promising are the perceived potentials of this new approach that it has been claimed to influence the nature of forestry activities more profoundly than any other development in the forestry profession (Arnold 1991).

Despite the popularity of community forestry, however, the concept of community in the context of the Philippines' CBFM is rarely defined or carefully examined, and is hence poorly understood (Pulhin 1996). This report attempts to rectify this omission by investigating the issue of "community" in practice in the context of self-initiated and externally initiated CBFM. Distillations from the wealth of available social science literature on community and the authors' own assessment of contemporary CBFM practice point to a certain notion of community particularly relevant to the authors' analysis–the notion of "organic" and "incipient" community.

The idea of organic community espoused in this report fits quite well with some characteristics of indigenous communities in the self-initiated CBFM sites visited. These communities satisfy the sociological, geographic, and psychological aspects associated with the definitions of community that may be gleaned from the literature.[1] That is, they consist of "persons, in social interaction within a

[1]Some of the more classic reviews of the various definitions and characterizations of community are found in Hillery (1955), Kaufman and Bailey (1965), Bender (1978), and Gusfield

geographic area and having one or more common ties" (Hillery 1955:111). Other than shared territory, such "common ties" include history, interests, norms, and a sense of identity. The cursory assessment of self-initiated CBFM indicates that these social bonds–closely associated with the current characterization of social capital–have helped promote sustainable forest management in these areas.[2] This assertion corroborates with recent literature that attempts to link the idea of social capital to the conservation and improvement of natural capital, including the forest (see, for instance, Magno [1997], and Pretty and Ward [2001]).

Incipient communities, in contrast, do not share the above-mentioned commonalities. They may have different ethnic backgrounds, may actually identify themselves only with their own (smaller) social group, and, as in the case of recent migrants, may not actually share common norms or a distinct sense of identity. However, the existence of vast differences among heterogeneously constituted aggrupations does not preclude the evolution of a community with a shared interest in managing and conserving a resource such as the forest. The development of "community-ness" remains a potential for these aggrupations. Thus, in the context of CBFM, where efforts are made toward institution building, they may be viewed as incipient or budding communities waiting to bloom and mature into organic communities.

In examining the issue of community in the context of self-initiated and externally initiated CBFM, the authors argue that the notion of organic and incipient communities provides a useful conceptualization that can offer fresh insights and a new direction to help advance CBFM goals toward a more democratic, equitable, and sustainable forest resource management. This chapter begins by characterizing the indigenous communities in five selected self-initiated

(1978). More recent literature that links the idea of community to issues on natural resources and the environment includes Dove (1982), Kemp (1988), Gilmour and Fisher (1991), Cernea (1992), Hirsch (1993, 1997), Vira (1993), Brosius, Tsing, and Zerner (1998), Kothari and others (1998), Ife (1999), and Agrawal and Gibson (1999).

[2]Interest in the idea of social capital has mounted in recent years, particularly in the 1990s. Some of the important contributions in the literature on this topic are the work of Coleman (1988, 1990), Putnam and others (1993), Levi (1996), Harris and de Renzon (1997), Narayan and Pritcheet (1996), Carney (1998), Flora (1998), Grootaert (1998), Ostrom (1999), Pretty (1998), Scoones (1998), Uphoff (1998), and Pretty and Ward (2001). In the Philippines, there are limited materials that relate social capital to forest management. Among these are Magno (1997), Contreras (2000), and Pulhin and Pesimo-Gata (2001).

sites in relation to the forest resources they manage. Based on this characterization, it proceeds to identify some factors that have enabled these communities to manage their resources sustainably. Then the discussion turns to how communities are defined and created in externally initiated CBFM. The authors also attempt to distill some lessons from self-initiated CBFM that may be relevant to externally initiated CBFM. Aware of some of the conceptual and practical concerns associated with their quite optimistic characterization of CBFM communities, as well as other policy and research-related issues, the authors further include a section on "Issues Associated with Community" toward the end of the chapter.[3] They conclude with an optimistic note that, while the present findings are suggestive owing to the need for a more comprehensive and in-depth field validation, their notion of organic and incipient communities promises to be an interesting and fertile area for research that can potentially provide fresh perspectives and direction in advancing the goals of CBFM in the Philippines.

INDIGENOUS COMMUNITIES AND SELF-INITIATED CBFM

An important report to the United Nations describes indigenous peoples or communities[4] as:

> . . . those, which, having a historical continuity with pre-invasion and post-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems (Cobo 1986, Add 1-4).

In the Philippines, indigenous peoples, also referred to as indigenous cultural communities, constitute around 106 ethnolinguistic groups and subgroups

[3]Recent literature on community-natural resource interaction has raised concern about the notion of "homogeneous community," which, to certain extent has a semblance to the "organic community" characterization. For elaboration on these issues, see Gilmour and Fisher (1991); Cernea (1991, 1992); Pulhin (1996, 1997, 1998); Mehta and others (1999); and Agrawal and Gibson (1999).

[4]In this chapter, the terms "indigenous peoples" and "indigenous cultural communities" are used interchangeably. Jocano (2000) uses the term "indigenous ethnic communities" to refer to the same group of people.

distributed to the three major islands of the country (Fox and Flory 1974 cited in Jocano 2000). Owing partly to the relative geographical isolation and scattered settlements of many such groups that render them inaccessible to official census-takers, their total number has not been accurately reported. As a result, the demographic picture of indigenous peoples remains vague, with each ethnographer and concerned national agency having its own statistics. Recent estimates of the National Census and Statistics Office (NCSO) placed their number to be over 6.3 million as of 1991 (see Jocano [2000]).

Anthropological studies suggest that, similar to other Asian countries, most indigenous peoples in the Philippine uplands employed indigenous forest management practices in some period of history, few of which still survive today.[5] At present, it may be safe to assume that the few remaining areas in the country with intact forests are mostly those in which indigenous forest management still persists. However, there seems to be a lack of comprehensive documentation and analysis of these indigenous management systems that can serve as sound basis for the recent search for sustainable forest management (Bennagen 1996).[6] This can be partly attributed to the negative images associated with indigenous peoples, such as "uncivilized," "backward," "barbarous practices," "low order of intelligence," and "culprits" of forest destruction (see Lynch [1982] and Olofson [1981]). Thus, some of the indigenous systems and practices related to forest management in the country may have been lost through time even before researchers can discover and document them.

In this report, the authors examine five of the remaining indigenous forest management systems located in Northern Luzon and Northern Mindanao,

[5]Some of the important contributions in the literature related to indigenous forestry practices in the Philippines are the work of Conklin among the Hanunuo Mangyan (1957); the edited work of Olofson on swidden-based societies (1981); the outputs of the ILO-sponsored studies of indigenous knowledge systems and practices (ILO 1996, 1998); and the edited proceedings of recent workshops on indigenous knowledge systems (IIRR 1993; Castro and Bugayong 1997; and Bennagen and Lucas-Fernan 1996).

[6]In an interesting presentation of the *Overview of Indigenous Resource Management*, Bennagen (1996:7) laments the fact that "until now, most of the studies in indigenous knowledge systems and practices in resource management have tended to be descriptive." While this, according to him, is a necessary stage in the growth of any body of knowledge, the fact that knowledge systems and resource management practices emerge from specific ecological, historical, and social structural conditions, there exists the danger of overaccumulation of detailed descriptions with minimum applicability and replicability.

including the indigenous peoples that manage them, as follows: (1) the *muyong* system of the Ifugao, (2) the *tayan* of the Bontoc, (3) the *saguday* of the Sagada, (4) the indigenous management practices of the Ikalahan, and (5) the *gaop* system of the Higaonon (see Annex). Their interest in self-initiated CBFM goes beyond the notion of organic community, although this constitutes an important aspect of the discussion. As mentioned earlier, they are equally concerned with other factors that enable them to manage their resources sustainably.

The following analysis draws largely from the available literature and the quick field visits and interviews the research team conducted in these areas.[7]

Resource Base

Consistent with the existing literature, the most valuable resource base among indigenous peoples in the five sites is their ancestral land. The now well-articulated worldview that "land is sacred and land is life"[8] is clearly reflected in their interaction with and use of the land and the resources therein. Similar to other indigenous peoples, the value of forestlands to the Ifugao, Bontoc, Ikalahan, and Higaonon goes beyond the calculus of the modern economic man. Forestlands provide them with the basic essentials of life, such as the food raised in swidden farms and ricefields, wood for cooking and shelter, water for drinking and other domestic uses, wildlife for food, and non-timber forest products for medicine and other purposes. Beyond these amenities, however, they see forestlands and the resources as part and parcel of their daily lives, without which their culture cannot continue to exist. This is well articulated in a 1995 conference on the ancestral domain of indigenous peoples of Northern Mindanao, in which the participants were quoted as saying:

> Without this ancestral land, we will not exist . . . Without the forests, mountains, rivers and our farms, we cannot continue to practice our culture . . .
>
> We, the indigenous peoples, are the true and rightful owners of our Ancestral Domain which we have inherited from our ancestors; and it will be the

[7]Except the *muyong* of the Ifugao and the Ikalahan's indigenous management practices, there is hardly any published literature on the other three systems.

[8]The well-revered Kalinga chieftain, Makling Dulag, forcefully articulated this worldview as he led the struggle against the proposed series of dam constructions across Chico River that would submerge Kalinga villages. This resulted in his murder in 1980 (Bennagen 1996).

> inheritance of our generations to come. Thus, it is our responsibility to develop, defend, and struggle for it by all means . . . (Bennagen 1996:2).

An important principle that appears to bind the indigenous peoples studied is the perception of harmony between man and nature. As humans depend on the environment for survival, there evolved the indigenous philosophy that nature is not to be conquered and controlled but is rather to be respected by adapting to and harmonizing with it (Prill-Brett 1997). In this perspective, man is not set apart from nature but is part of a single order combining man, nature, and the supernatural. Among the Ifugao of the Cordillera, the "harmony and balance" in this triad relationship is compared to three stones (tripod) that support the native cooking stove called "dakilan" (Prill-Brett 1988). A missing stone will render the stone "unbalanced" and cause disaster.

The harmony and balance fostered by the triad relationship seems to be a major contributory factor in the wise use and preservation of forestlands and resources. All five sites still contain old-growth forests, some portions of which are considered as sacred grounds (or sacred mountain, as in the case of the Higaonon of Minalwang, Claveria) that serve as abode of the supernatural. In general, increasing forest cover can be noted, owing to the continuous planting of trees and the good system of maintenance and protection from natural and anthropogenic forces. The communities further observe regulated forest product utilization, thus ensuring resource renewal.

Social Organization

The five sites belong to three of the five basic types of ethnic social organizations identified by Jocano (2000) in his important study of the patterns, variations, and typologies of Filipino indigenous ethnic communities. Arranged in a continuum of increasing complexity, these social organizations are characterized as follows:

1. *Puró* type. This includes the slash-and-burn (*kaingin*) farmers, such as the Ikalahan, who live in scattered semipermanent settlements or neighborhoods called "puró." Representing the kindred type of social organization, it is generally composed of related persons occupying a particular settlement and having close interaction with one another. The organizational focus is on the settlement, while group life centers on the family and the neighborhood. Among members of the Kalahan

Educational Foundation (KEF), sharing and cooperation constitute the major theme of group life.

2. *Ili* type. Derived from the Bontoc name for "village," this type consists of groups of people living in villages of various sizes, called "hamlets," albeit predominantly large and compact. The hamlets are further subdivided into smaller politico-juridical units which function as the economic, political, and religious centers. This type of organization can be noted among the Ifugao, Bontoc, and Sagada. Elders and influential members of the community who comprise the council of elders assume sociopolitical leadership.
3. *Banwa* type. Represented by the Higaonon, the *banwa* is characterized as the most complex type of indigenous social organization. It is made up of several villages organized in large communities or domains. Each village is composed of several related or unrelated families, held together by village alliances and a complex set of customary laws. As in the Higaonon of Minalwang, political leadership is vested in the head of the influential family (*datu*), who is assisted by the council of elders.

A common feature of these three types of social organizations is the emphasis on kinship as the organizing principle of group relations. Other factors that provide structures and sentiments to social relations are marriage, brotherhood (i.e., *sandugo*), peace pacts (as practiced in the Cordillera), and trade partnerships. Moreover, a body of traditionally accepted rules of conduct or ethnic laws governing personal and institutional behavior serves as an important integrating element of these organizations. This is reinforced by institutionalized religious beliefs and practices such as the rituals generally celebrated to appease the spirits, to sustain the good life, and to prevent misfortunes in individual and community life (Jocano 2000). In the context of resource management, rituals may be viewed as a planning tool. Bennagen elaborates:

> Community feasts of thanksgiving for bountiful harvests, or in the other rituals connected with different aspects of production, including settlement of land disputes, bring the people together. By means of the invocations and the performances including the praying, singing, chanting, dancing, drinking and eating, the rituals become effective means of communication and learning. The rituals re-affirm the connections between humans and nature and strengthen the commitment to a cultural identity rooted in the past and in a special place . . . In the course of the rituals, plans of activities are outlined and rules, including sanctions, are expressed (1996:9).

Indigenous Resource Management Practices and Institutional Arrangements

Various indigenous resource management practices still exist in the five sites, demonstrating the wealth of knowledge systems that the indigenous peoples possess. For instance, the Ifugao have developed appropriate silvicultural practices which they continue to observe in managing their *muyong* areas. These include underbrushing; thinning; enrichment planting; removal of poisonous trees, shrubs, and climbing vines; pruning; and selective cutting (See 2000). They likewise undertake sprouting/pruning, rejuvenation, compost piling, root cutting, and collapsing. They gird and thin trees to regulate the intensity of light reaching the undergrowth (Serrano 1990). They do not cut huge trees in the *muyong*, especially those located near creeks and large rocks, because these are believed to be the home of the Ifugao earth spirits (IRDC 1996).

Similarly, the Ikalahan apply various forms of indigenous technologies for production and soil and water conservation (Dolinen 1997). These consist of the *inum-an* (a system of farming involving site selection, clearing, burning, planting, weeding, harvesting, and fallowing of swidden farm), *gen-gen* (combination of terracing and composting), *day-og* (a type of planting that promotes soil fertility and good drainage), *balkah* (a form of vegetative terracing), *kinebbah* (fallowing), *tuping* (riprapping), and *pamettey* or *pangkal ni bigih* (use of biological pesticides/ insecticides). Like the Ifugao and the Ikalahan, the Bontoc, Sagada, and Higaonon adopt indigenous resource management practices (see Annex).

The communities further engage in various forms of local indigenous institutional arrangements to facilitate the application of different local resource management practices. In the *saguday*, for instance, the council of elders appoints a *membantay* (administrator or caretaker) to ensure the enforcement of customary practices in relation to the cutting of trees as well as the maintenance and protection of the area (Cruz 2001). In the *muyong*, this same set of responsibilities is assigned to the eldest child to make sure that the family or clan forest is managed according to locally defined and legitimized rules and regulations.

Among the Ikalahan, the *tontongan* provides the mechanism for resolving conflicts related to illegal logging, forest fires, encroachment, land grabbing, and

marriage problems, among others.[9] They find this system efficient, more democratic, and reliable, compared to the time-consuming and often financially expensive legal courts (Dolinen 1997).

Factors Promoting Resource Sustainability

Most, if not all, of the five sites can be considered as success stories, especially if the basis will be the quality and quantity of forest resources still available in these areas. The forest cover and quality are not only maintained but also enhanced as a result of continuous tree planting and forest protection activities. Despite internal and external threats to the sustainability of these systems, the fact that they continue to exist attests to the effectiveness of the community forest management systems installed by the indigenous peoples. Distillations from the experiences of these systems point to the following factors that contribute to effective community forest management, in addition to those already mentioned above.

Well-defined and Secure Property Rights

Property rights have been defined as "*the capacity to call upon the collective to stand behind one's claim to a benefit stream*" (Bromley 1991:15; emphasis in original). Property rights thus involve a relationship between and among the right holder, others, and an institution to back up the claim (Meinzen-Dick and Knox 2001).

In the context of self-initiated CBFM, property rights are those rights held by families, kinships, or tribes over forestlands and the resources therein, including the trees, water, wildlife, and biodiversity, which the community members regard as having economic or cultural significance. These define who can take advantage of the rights, creating opportunities and incentives for the holder (see Chiong-Javier [1997]). Well-defined property rights in the form of "customary ownership" of the *muyong*, *tayan*, and *saguday* allow the family and kinship members to access forest resources and hence enjoy the benefits that

[9]In the traditional system of *tontongan*, the council of elders calls for a meeting between the conflicting parties to settle the disputes. Both parties are asked to explain their side. In case there are conflicting statements, the council may conduct a thorough investigation of the case. Once the culprit is identified, the elders explain why he/she should be punished and agree on the kind of punishment. On some occasions, the culprit can bargain if he deems the punishment too heavy compared to the offense (Dolinen 1997).

accrue from responsible resource management. These also enable them to exclude others from using, let alone abusing, the forest resources.

Similarly, the provision of tenurial security to the Ikalahan and the Higaonon through the issuance of CFLAs and CADCs, respectively, has provided them with the motivation and incentive to manage their forest resources to meet the requirements of present and future generations. In turn, the absence of resource use permit in the case of the *tayan* and the *saguday* has served as a disincentive for sustainable forest management and may partly explain why some *tayan* in Bontoc are not well maintained and are declining in quality.

Moreover, there exists in the sites a clearly defined social arrangement for forest management and benefit distribution. Along with the rights and privileges come clearly defined responsibilities and accountabilities which are well understood by the community members. In the *muyong*, for instance, the main management responsibility rests on the owner (usually the eldest son). He is accountable to the family or clan members and the "community" at large in ensuring the proper management of the woodlot. In the *saguday*, the caretaker is accountable to the council of elders and the entire clan in making sure that forest management conforms to the existing cultural traditions that promote forest resource sustainability. In exchange, both the *muyong* owner and the *saguday* caretaker have the priority right to enjoy the benefits accruing from responsible resource management.

In terms of access to benefits, only the members of the family or clan that owns the *muyong* can avail themselves of the resources freely. Oftentimes, non-members are allowed to cut only branches of trees with the permission of the concerned clan owner. "Outsiders" have the unspoken obligation to perform maintenance tasks like clearing the place of debris and cutting weeds or any undesirable species that hamper the growth of valued plants and trees (See 2000).

Strong Social Capital

The present assessment corroborates the earlier research finding that strong social capital creates space which promotes sustainable community forest management (Magno 1997; Contreras 2000; Pulhin and Pesimo-Gata 2001). Shared history, cultural ties, kinship system, and the "sense of community" jointly cultivate cohesiveness and relations of trust, reciprocity, and exchanges among indigenous peoples in the research sites, enabling them to work cooperatively

toward the effective management of the forestry resources. For instance, a 1992 research by Prill-Brett in Bontoc shows how "intense cooperation among the community members in a wide range of community activities has developed as a reciprocal cultural-ecological adaptation to their harsh environment" (See [2000]).

In all five sites, the people, having a "sense of community," interact meaningfully at the personal level and perform clearly defined roles in forest management, in the spirit of mutual cooperation and support. In this case, the term "sense of community" refers to some characteristics of the "community" as described by Ife (1999), as follows:

1. *Interaction at a scale which can be readily controlled and used by the individual*. While the size of "community" in the five sites highly varies from as small as a family of four (in the case of the *muyong* system of the Ifugao) to more than 500 households almost covering an entire tribe (in case of the Ikalahan), it is small enough to allow interaction at a human scale meaningful to its members. Where "communities" are big, such as the tribe, meaningful interaction happens at the "sub-community" level defined either by clan or by geographic location (e.g., *sitio*) or settlement group. At this level, personal interaction provides opportunities for the meaningful sharing of information and ideas and the building of consensus on matters concerning resource management.
2. *Identity and belongingness*. Group identity has been described as a sense of belonging to a community, which is crucial to the success of any cooperative enterprise. It can be viewed as a form of cultural capital which reproduces community norms, mutual aid, and solidarity (Hirabayashi 1993 cited in Magno 1997). In the five sites, a deeper sense of identity and belongingness is evident among the different tribal groups owing to kinship ties, common cultural heritage, and shared locality/territory, i.e., their ancestral homeland. This plays a central role in the pursuit of community-based conservation. Among the Ikalahan of Nueva Vizcaya, for instance, group identity and belongingness have shaped the character of institutions and rules for monitoring, sanctions, and rewards (Magno 1997). The community has developed more effective institutions for implementing collective action rules that promote forest conservation.
3. *Sense of obligation to members*. Shared history, culture, and genealogy create among the community members a sense of obligation to one

another. They are expected to contribute to the "life" of the family/clan/tribe by participating in at least some of its activities, including forest management. For instance, owners of the *muyong* are expected to pass it to the next generation in a productive state. Similarly, clan/community members are expected to abide by the customary rules and regulations concerning forest management and protection to gain social approval.

Likewise contributing to system maintenance are the customary rules, norms, and local sanctions mutually agreed upon by the community members and handed down from one generation to another (as in the *muyong*, *tayan*, and *saguday* in the Cordillera area, the *gaop* management system of the Higaonon, and the Ikalahan Reserve in Nueva Vizcaya). Moreover, the social networks established by the Ifugao, Ikalahan, and Higaonon with state institutions like the DENR is a form of external social capital that enables them to take advantage of existing tenure instruments/resource use permits provided by government. This, in turn, has worked to their advantage in terms of securing their vested rights over their ancestral lands and forest resources, as well as effectively managing these resources.

Effective Leadership

The nature of leaders and leadership in the sites varies from one ethnolinguistic group to another. However, regardless of the form of leadership, part of the success of the different forest management systems can be attributed to effective leadership that mobilizes full recognition and support from its constituents. In almost all sites, the council of elders occupies a respectable and prestigious position that commands submission and obedience, particularly in political and religious affairs of the tribe/clan, including matters related to forest management. Its main responsibilities in forest management are as follows: (1) to ensure adherence of the community to customary laws, beliefs, norms, and practices (e.g., what trees to cut for what purpose, in the case of the *tayan* and the *saguday*); (2) to settle local conflicts; and (3) to impose local sanctions relevant to forest resource management.

Indigenous Knowledge Systems

The indigenous peoples' detailed knowledge of their local environment and their appropriate application of indigenous technologies are important factors contributing to the sustainability of their forest management systems and their

local environment in general. A remarkable example is the *muyong* system of the Ifugao, which showcases an integrated and sustainable management of the *payoh* (rice terraces), *muyong* (woodlot), and *uma* (swidden farm). As Bennagen vividly describes:

> In this highly integrated agro-forestry system, the *muyong* with its second growth forest and numerous tree species, including fruit-bearing commercial ones (e.g., coffee), helps to protect and conserve the *uma* and the *payoh*. The *muyong* helps in the regeneration of the nearby swiddens by providing seeds. It also helps to conserve water for the *payoh* (1996:14; italics added).

Moreover, the various indigenous silvicultural practices which the Ifugaos have developed for the management of the *muyong* attest to their profound knowledge of the forest ecosystem. These are found to be comparable with the modern silvicultural techniques which scientists have developed, and to contribute to maintaining not only the *muyong* but also harmony and balance among the *muyong*, the *payoh*, and the *uma* (Serrano 1990). Similar to the Ifugao, the Bontoc, Sagada, Ikalahan, and Higaonon are known to possess a wealth of local knowledge and technologies in relation to local resource management, although these may not be extensively documented as those of the Ifugao. Such knowledge may pertain to trees/plants and their management, land allocation, soil and conservation technologies, uses of various products, and techniques in processing forest products. These have significantly helped in sustaining the various forest management systems developed by the indigenous communities.

System Resilience

The forest management systems in the sites have managed to cope with the demands of the changing times, which explains their existence to this today. For instance, to address the increasing demand for woodcarving materials from the *muyong*, the Ifugao modified their species composition in favor of carefully chosen fast-growing species. They also grow robusta coffee and other cash crops to increase the economic productivity of the area (See 2000). Moreover, their time-honored cultural practices, beliefs, and taboos have instilled in them a deep sense of environmental concern, compelling them to leave the area in case it can no longer support the family or clan, rather than overexploit the resources.

The Ikalahan have likewise been able to incorporate some improvements into their long-held cropping patterns and imbibed livelihood innovations without

adversely altering their long-held indigenous practices that promote resource sustainability. For instance, they have adopted the multistorey cropping system and have added fruit-bearing and forest trees, such as avocado, pomelo, *alnus*, pine trees, *yemane*, and coffee, to their traditional crops like sweet potato, *gabi*, and taro. They have also embarked on the processing and marketing of the fruits of *dagway* (a tree), *dikay* (a woody vine), passion fruit, *bignay*, and guava to augment their income. Moreover, through the KEF, particularly the facilitative role of an American missionary, Pastor Delbert Rice, they have begun to engage in various innovative projects such as the Kalahan Academy and the Bible School, organic gardening, livestock production, weaving, blacksmithing, food processing, piggery, agroforestry, orchard development, and reforestation. All these projects have helped in lessening the pressure on local forest resources and, hence, in promoting resource sustainability.

EXTERNALLY INITIATED CBFM

As mentioned in Chapter 1, externally initiated CBFM falls under two categories: locally assisted initiatives such as those involving the LGUs, NGOs, and the academe; and the national government programs or projects initiated by or in partnership with the DENR. This section focuses on how communities are defined and created in externally initiated CBFM sites. Where possible and useful, the authors attempt to contrast some of the features of externally supported sites with self-initiated ones, with the end in view of drawing some lessons from their varied situations.

Definition and Composition of the Community

The notions of "community" in recent CBFM initiatives, like the locally supported and national programs and projects, have been largely associated with an instrumentalist nature. "Communities" are generally associated with POs and small groups which are organized to achieve specific project objectives. Subcategories within the POs include the associations and cooperatives normally established to implement CBFM projects, and the bigger federations, which are made up of these two groups. In turn, the "small groups" category constitutes the farmer groups (e.g., Landcare in Claveria, Misamis Oriental, and in Lantapan, Bukidnon; BEST Project in Malaybalay, Bukidnon; ISFP/UDP in Upper Bala, Davao del Sur; and BLUDPP in Buhi-Lalo, Camarines Sur). In some instances, the community is defined as a locality–a human settlement with a fixed and

bounded local territory such as *sitio* or barangay (e.g., Guba, Bansalan and Kabulnan, Kiblawan, Mt. Kitanglad, and Don Victoriano).

Meanwhile, in self-initiated sites, the notion of community, viewed in relation to the forest resources they claim and manage, is generally identified with organic social groupings, including the family, clan, and tribe. Thus, in the context of the *muyong* system of the Ifugao, "community" refers to the family or clan that owns and manages the *muyong* to meet its forest-related needs. The same can be said among the Bontoc and Sagada, in which "communities" generally pertain to the clan owners of the *tayan* and *saguday*, respectively. In the case of the KEF, the members, particularly the people which Pastor Rice call the "Ikalahan"[10]–are the ones who constitute the community. The community in Minalwang, Claveria, Misamis Oriental, is closely linked to the Higaonon tribe, which comprises more than 90 percent of the total occupants of the area. However, clan affiliation is very distinct among the Higaonon in this area such that the entire tribal population can be regarded as members of smaller communities whose membership is based on clan affiliation.

In self-initiated sites, therefore, the idea of community seems to be embedded in the local social institution rather than solely a result of imposition by outsiders. In two instances, however, the DENR and an outside Foundation catalyst were also involved in defining the community (i.e., the Higaonon of Minalwang, Claveria, Misamis Oriental; and the KEF members in Sta. Fe, Nueva Vizcaya, respectively).

In terms of composition, the communities in project-initiated sites follow how the community is defined in practice. Thus, in locally assisted and national program sites, the community composition is largely defined by PO membership, participation in project, geographic boundary, or a combination of these. This contrasts with the composition of communities in self-initiated sites.

"Shapers" of Community

Consistent with their instrumentalist nature, communities in locally assisted and national program sites are solely defined either by external development

[10]The appellation of the group is being disputed by the larger group of Kalanguya, to whom the Ikalahan people are supposed to be related by virtue of their common origins in an Ifugao village (see Resurreccion [1998]).

agents or by external agents in partnership with influential locals. The external development agents include NGOs, LGUs, the DENR, participating agroforestry school, and project staff. They cover 5 (of 9) locally assisted and 6 (of 15) national program sites. In turn, the influential locals are composed of the present residents and PO officers and members in the different CBFM areas. This group and the external development agents jointly define about 33 percent of locally assisted and 87 percent of national program sites.

There is some grain of truth to the contention of some critiques that communities in the project-initiated category are merely impositions by outsiders. Such critique, however, is only partially founded and cannot be applied to all cases. For instance, in 16 of the 29 sites studied, external agents and influential locals jointly define communities. This seems to indicate that some form of negotiation between outsiders and locals could have occurred in the process of defining some of the communities. In general, however, it can be deduced that the major "shapers" of the community in CBFM, both in locally assisted and national program sites, remain to be the external agents either solely or in partnership with influential locals.

The Ties that Bind

Economic incentives and benefits are the major factors that bind the communities in both locally assisted and national program sites. These include the different forms of livelihood and employment opportunities provided by the projects. Reforestation, ANR, TSI, and other site development activities are contracted to communities, providing them with employment albeit within a limited period. As a result, the communities obtain immediate income not only to support their subsistence but also to generate funds for agroforestry farm development and for the PO's capital build-up.

Other income-generating projects are the sale of agroforestry produce, economic activities of marketing and credit cooperatives, collection and/or processing of minor forest products (e.g., rattan, bamboo), vegetable gardening, upland fishponds, and other livelihood undertakings. Where the communities have been issued resource use permits (e.g., Ayungon and Bindoy in Negros Oriental, and Mat-i in Claveria, Misamis Oriental), timber harvesting serves as a major form of livelihood. This has proven to be an important source of capital build-up in these areas, enabling the PO members to support forest protection,

venture into various income-generating projects, and establish linkages with government and other sectors.

Beyond the economic incentives, there are the binding factors like tenure interest; environmental awareness; acquisition of additional knowledge through participation in training, cross-farm visits, and related activities; and technical assistance. However, the experiences in various sites indicate that these factors alone are not sufficient to sustain the community's interest in collective action that promotes sustainable forest management.

In self-initiated sites, there are more commonalities that bind themselves, such as sociocultural, psychological, and geographic factors. Sociocultural ties include common history, genealogy, language, customs and beliefs, and other related factors. Associated with these are the psychological factors, like common identity and a sense of belongingness and obligation to community members. The geographic factors pertain to shared locality or territory, such as ancestral land, and attachment to "special places" (Eisenhauer, Krannich, and Blahna 2000), e.g., sacred mountains (as in the Higaonon of Minalwang). All these binding factors enable the community members to efficiently and effectively pursue collective action, forest management included.

Community Stratification

CBFM communities may be stratified along several categories. The most common type is PO membership (PO member vs. non-PO member), which accounts for 14 of the 29 sites. In several national program sites, for instance, PO officers and members challenged the leadership of LGUs that had been party to illegal logging. There were also cases in which the POs had managed to contain the illegal practices of residents and outsiders, like *kaingin* farming and tree cutting.

Leadership status in the PO (i.e., officer vs. general assembly vs. committee member) is another common category among communities in all three types of CBFM initiatives. Other bases for stratification are ethnicity (indigenous people vs. migrant settler), tenure/resource access (tenure holder vs. non-tenure holder), size of resource claim (small vs. large), length of residency (old resident vs. new resident), and knowledge leadership status (farmer-trainer vs. ordinary farmer).

Among indigenous peoples, stratification reflects the indigenous social structure which includes the elders or datu, as distinguished from the ordinary

clan member. Gender differentiation is also distinct, especially in the *muyong* of the Ifugao and the *tayan* of the Bontoc, in which women are not allowed to participate in collective decision making on forest-related concerns. The size of resource claim is another factor that determines stratification.

The highly diverse community stratification in all study sites reinforces the idea of an extremely heterogeneous community as against the homogeneous assumption being forwarded by some, based on the traditional sociological definition of community (Cernea 1992; Gilmour and Fisher 1991; Mehta and others 1999). This implies that community members have varied needs and interests that are often conflicting, and have differing degrees of power which may be used either constructively or as a tool to dominate others. Considering that competing interests is a natural feature of human communities, one of the concerns in community forestry is the strengthening of mechanisms for effective and equitable management of such conflicts (Korten 1986).

ISSUES ASSOCIATED WITH COMMUNITY

Limited information exists on how community is actually defined on the ground in relation to the practice of CBFM. A 1992 field assessment of Hermann and company involving selected government-initiated community forestry projects shows that the lack of clear understanding of what "local community means" in practice has resulted in conflicting approaches to project implementation and to uncertainty of project outcomes. A number of relevant issues are briefly discussed below based on the community data previously presented.

Community-building Need of CBFM

From the process of defining "community" emerge the notion of organic and incipient community. Organic communities are a social group with commonalities in terms of history, interests, sense of identity, and locale or geographic setting. Examples of these are the the Ifugao of Banaue, the Ikalahan of Sta. Fe, and the Higaonon of Minalwang, or upland communities of long standing (e.g., Bulolacao of Cebu). In contrast, incipient communities may have different ethnic backgrounds, may actually identify themselves only with their own (smaller) social group, and may actually be new to the place (e.g., migrants), but such characterization does not preclude the evolution of a community with a shared interest in managing a resource such as the forest. The development of "community-ness" remains a potential for these aggrupations.

POs, which are the de facto "community" managers in most CBFM sites, are incipient communities. Thus, especially those in large CBFM areas spanning several barangays or municipalities, they are faced with daunting community organizing challenges, which include great heterogeneity of ethnic and cultural backgrounds, multiple and oftentimes conflicting social structures and political-economic interests, and varied indigenous resource management practices, not to mention large population sizes. More often than not, they lack the necessary organizational skills to steer different interests and voices toward one direction. Debilitating organizational problems and inadequate organizational capacities in many sites reflect the need for prior community building as contrasted with community mobilization.

CBFM Projects as Impetus to Community Building

For the POs, the total CBFM project package and the economic benefits it promises serve as the "binder" that holds the members together. This contrasts sharply with organic communities, in which shared ethnicity, culture, history, identity, and locality act as the binder. This weak basis for "community-ness" makes PO-based communities extremely vulnerable to internal threats, whether in the form of initial indifference or skepticism toward the project, or conflicting views with regard to the way funds are to be used or accounted for.

A very serious drawback of this project-based definition of community is that, upon the termination of CBFM projects and the alternative sources of livelihood they provide, immature "communities" tend to become unglued. When this happens, the gains made from mobilizing collective action for resource management get compromised. It is not surprising, therefore, that group-based protection activities involving patrols have been known to decline, and illegal logging and forest destruction have reportedly resumed in vulnerable CBFM sites. Such vulnerability reflects the need for community organizers to attend to community cohesion, just as much as they need to focus on organizational capacity building in incipient communities.

In turn, POs representing communities of long standing or organic communities–that is, with historical and cultural ties among the members and self-regulating institutions which together make up the "social capital"–tend to exhibit greater resilience. The CBFM experience provides opportunities for capacity building, especially through planning, implementation and evaluation, mobilization of internal resources, policymaking or rule setting and enforcement, financial management, and linkaging for resource access.

Securing the Community's Property Rights

A major role of government in securing the community's property rights and in promoting social equity is the issuance of land tenure instruments to qualified individuals and groups. Land tenure instruments, however, draw their main legitimacy from government, which institutes them (Pulhin 1996). Under this arrangement, the national government is the primary allocator and enforcer of rights to forest resources. In contrast, customary tenure systems derive their basic legitimacy from the community within which they operate (Lynch 1992). Under these systems, "local participants are the primary allocators and enforcers of rights to forest resources" (Lynch 1992).

It can be said, therefore, that the land tenure instruments which the government has developed are not value-neutral. They tend to reinforce the government's ownership of forestlands and facilitate a type of CBFM within the bounds of its centrally determined agenda and priorities. Having realized this, some indigenous peoples (e.g., Higaonon of Mt. Isarog) would not accept the CADC being issued to them as they consider the mere acceptance of this instrument as an explicit recognition of state's ownership of their ancestral domain. Instead of securing their property rights, land tenure instruments for the Higaonon are government's instruments of control–a strategy for integrating them into the national (and international) agenda of forest management. In this case, national and international priorities, like the promotion of biodiversity, take precedence over and above the interest of the local people. Initial experience in protected areas (as well as in big government reforestation projects) indicates that this can be adversarial to the welfare of the local people who depend on the forestlands and resources for their survival.

A more positive approach, however, is to view land tenure instruments as instruments of opportunity. Empowered communities may be able to negotiate with government to turn land tenure instruments to their advantage, as in the KEF experience. The effects of the issuance of different tenure instruments under varying socioeconomic and biophysical situations and different government programs espousing their respective objectives (e.g., CBFM within production forest vs. CBFM within protected area) are not yet fully understood and merit in-depth investigation. Similarly, customary property arrangements among indigenous peoples are poorly appreciated and need further study.

Natural Resource Management Practices

Being development interventions, CBFM projects have largely used a "technology transfer" orientation in promoting forest management practices like reforestation, protection, ANR, TSI, plantation establishment, and agroforestry. The minimal effort toward understanding the indigenous resource management system implies that either no management system exists or such understanding is not necessary. Interventions then focus on introducing new systems of forest management as well as creating new resource management institutions such as the POs. In many instances, new management systems, such as reforestation, which conflict with de facto tenure arrangements create instability and tension between claimant-occupants and CBFM advocates.

In addition, project investments in forest management have largely centered on the employment of community labor to either reforest denuded areas or protect remaining residual stands. While such employment has been beneficial to the participants, they have to pay a high price for their involvement. For instance, in CBFM sites with Comprehensive Site Development (CSD) projects, the participants virtually subsidized government reforestation and forest protection projects as a result of long delays in the disbursement of payments and the nonapproval of items billed by the POs. The temporary nature of the project and, ergo, of the employment opportunity, oftentimes does not lead to the creation of sustainable livelihoods for the community. This tends to promote dependence on government for jobs, rather than encourage the creation of enterprises that can improve the productivity, stability, and sustainability of the resource base for already existing livelihood activities or strategies.

In general, project-initiated community forestry, which has dominated the arena of resource management in the last two decades, has not benefited from the wisdom of indigenous forest management practices, and hence has very limited experience base to draw from. Available results of research on indigenous forest management practices are limited to a very few cases (e.g., KEF), unorganized, and not comprehensive enough to merit incorporation into the overall development agenda and serve as basis for sound forest development investment. This, by and large, has largely constrained the potential of CBFM for promoting sustainable forest management and livelihood among forest dwellers. Present CBFM interventions can significantly improve their positive impacts on a national scale through strong research support that places emphasis on the incorporation of indigenous management systems into contemporary forestry practice.

The Issue of Scale

"Community" size is highly variable in the 29 sites in terms of PO membership, number of households, and resource base. Nine of 15 locally assisted and national program sites with available data on PO size have less than 200 members. The remaining six sites have 200 to as many as 2,813 members (e.g., Maasin Watershed, Iloilo). The PO with the smallest size is Sta. Cruz Grower's Association in Claveria, Misamis Oriental, with only 39 members.

There is higher variation in the number of households, which ranges from as low as one (e.g., *muyong* of the Ifugao) to 55,125 (e.g., Mt. Kitanglad, which is composed of all Higaonon tribes). However, the "bigger community" is divided into smaller ones through their affiliations with the different POs in the area. This allows the communities to interact on a "human scale" which can be readily controlled and used by individuals–one of the identified "characteristics of community" (Ife 1999).

In terms of the size of resource base, the self-initiated sites are highly variable and do not show any specific pattern of area coverage. The size ranges from 0.5-7.0 ha (e.g., *muyong*) to 20,500 ha (e.g., community-managed CADC area in Minalwang and Claveria, Misamis Oriental). Meanwhile, in locally assisted and national program sites where communal tenure such as the CBFMA is a forerunner, the area coverage tends to lump between 1,000 ha and 3,000 ha. The bigger areas include national parks and watersheds (e.g., Mt. Kitanglad protected area, with 30,642 ha; Mt. Isarog National Park, with 10,112 ha; and the Maasin Watershed in Iloilo, with 6,738 ha).

The available information is not sufficient to make a conclusion on the desired size of resource base that a typical community can effectively handle. However, it seems to be a general practice that bigger areas, such as watershed and protected areas, are managed by a number of "communities" or "subcommunities" (small groups within the bigger "community") instead of just one community. This appears to indicate that the size of resource holding is an important factor to consider in ensuring effective and sustainable forest management. In other words, it may be assumed that a typical community can only effectively manage so many number of hectares of forestlands based on a combination of sociocultural, biophysical, and institutional factors. Identifying the appropriate scale that a community can effectively and efficiently manage under different objectives and situations is one of the major research gaps that should be addressed in community forestry.

5

GOVERNANCE

Community-based forest management is a key strategy for achieving sustainable forest management goals which entails decentralizing authority and responsibility for forest management (Sukwong and Singh 2000; Poffenberger 1990; Asia Forest Network 1997). Decentralization and devolution are dominant themes in contemporary discussions on the management and governance of forests throughout the world (Gilmour and Fisher 1997). They reflect a global trend in the discourse of devolution that combines the roles of markets and communities as a substitute for the basic role of the state in national development and resource management (Agrawal and Ostrom 1999). Normally associated with such concepts as participation, co-management, and empowerment, community involvement in forest governance is seen to promise increased proximity to clients, local ownership, reduced transaction costs, greater equity, enhanced sustainability (Van de Sand 1997 cited in Anderson 2000); improved management, accountability, and agricultural and economic productivity; and cost recovery (Vermillion 1997 cited in Anderson 2000), in addition to greater impacts on local livelihoods, capacity, adaptation, and cost-effectiveness (Brown 1998 cited in Anderson 2000).

This chapter looks into how CBFM efforts in the Philippines, using the 29 sites visited as well as other sites mentioned in the literature, are in fact promoting community involvement in forest governance. It is organized into four main sections. The first shows the analytical framework used in examining the underlying issues in forest governance, particularly those dealing with the issue of control and management. The second provides the policy and multi-user context in which devolution in the Philippine forestry sector is occurring. The third presents primary and secondary data from the field which serve as windows into the specifics of community participation on the ground and the institutional mechanisms for empowerment, governance, and participation, as well as the underlying factors which promote or constrain them. Finally, the fourth highlights the key issues suggested by the data presented.

PARTICIPATORY FOREST GOVERNANCE FRAMEWORK

Governance has been defined as "the manner in which power is exercised in the management of a country's economic and social resources for development" (EDI-World Bank 1992:1). This definition runs the gamut of policy, public sector management, accountability, legal frameworks, transparency, and information. An alternative definition veers away from conventional definitions of governance that dwell on government structures and institutional state processes, and instead focuses on the "relationship between civil society and the state, between rulers and the ruled, the state and society, the government and the governed" (Halfani 1994 cited in Porio 1997). Both definitions, nonetheless, emphasize the centrality of politics and power, of the issue of who has control, or a say, in the realm of governance. In the area of forest management, the issue of control is central because the use of the forest resource depends on how it is controlled and who controls it (Mather 1990).

Devolution is contrasted with decentralization in that the former deals with the transfer of government functions and responsibilities from higher to lower levels of governments and to local communities and the private sector, often for the purpose of improving the delivery of basic local services (EDI-World Bank 1992). Meanwhile, decentralization deals specifically with the transfer not just of responsibilities but, most especially, of power and authority (Fisher and others 2000). Fisher (2000) defines power as "the capacity to affect the outcome of decision-making processes."

Governance

Three dimensions of governance are involved in decentralization: administrative functions (i.e., responsibility), political power (i.e., authority), and the means and resources with which to do the job (i.e., fiscal authority; EDI-World Bank 1992). The assumption is that genuine devolution occurs only when an appropriate mix of these three dimensions of power and authority is devolved to the local level.

The reality of genuine devolution of powers from the state to the local communities under the rubric of CBFM has been the subject of animated contemporary discussions (Enters and Anderson 2000). What responsibilities and powers are involved in forest governance under CBFM and who actually undertakes and wields them? To what extent do local communities hold or

exercise control over planning, implementation, rule making, enforcement, and other community resource management concerns? What types of relationship do communities have with other forest governance actors? And what social negotiation processes, if any, allow space for communities to participate in forest governance? This chapter explores these questions in light of the evidence presented by data on the 29 sites and the existing literature.

Participation

For good or ill, CBFM places the burden of forest management squarely on the shoulders of local communities and local government entities. This devolution process is driven by the failure of conventional state-centered management models to ensure sustainable resource management. In the context of development interventions, this failure is attributed to, among others, "the lack of coherence between interventions and local livelihood strategies and the exclusion of local people in project design, planning, implementation, monitoring and evaluation" (Enters and Anderson 2000:170). In addition, centralized service delivery approaches of development interventions have at least four key limitations: (1) limited reach, (2) inability to sustain presence at the local level, (3) limited adaptability to local circumstances, and (4) creation of dependency (Korten 1981).

Participation of local communities in natural resource management and governance is considered as a necessary but not sufficient condition for achieving sustainability (Fisher 2000). From the perspective of efficiency and effectiveness, community participation is desirable because of proximity factors, cost-effectiveness, and the presumed commitment and interest of communities to the conservation of the resource base upon which their livelihood depends (Anderson 2000). From the perspective of equity and empowerment, community participation is essential because it ensures greater community access to the benefits and provides experiences that help in capacity building and empowerment.

As a construct that is normally considered as the cornerstone of democracy (Pateman 1970 cited in Shadid, Prins, and Nos, n.d.), participation is defined as a process in which individuals and groups take part or have a part in "something"–normally decision making and conduct of activities related to the organization and the delivery of certain services or benefits (Shadid, Prins, and Nos, n.d.). A central idea of this definition is the decision-making process which influences other actions, subsequent decisions, and their outcomes. Stressing the importance

of redistribution of power to real participation, Arnstein (1974) provides an eight-step "ladder of participation" to indicate the degree of power people have over decisions that are made. This ladder places manipulation at the lowest level, followed by therapy and informing–three approaches which are basically non-participative. The next steps present some degree of token participation, namely, consultation and placation. The last three highest steps– partnership, delegated power, and citizen control–indicate degrees of citizen power. From the perspective of power, Arnstein thus views participation as the "strategy by which the have-nots co-decide (for instance) how information is spread, how ends are formulated, how taxes are spent, how programmes are completed, and how benefits such as contracts and customs are distributed" (cited in Shadid, Prins, and Nos, n.d.).

However, participation is not limited to decision-making processes alone. Applied in the development context, Cohen and Uphoff (1977) broaden the definition of participation to include implementation, benefit distribution, and evaluation. They view decision making as an ongoing process that cuts across need identification and priority setting to policy formulation, planning, implementation, benefit distribution, and monitoring and evaluation. Implementation entails decisions on who contributes what, and in what ways, to development efforts. Sharing of benefits pertains to questions of quality and quantity of the benefits and their distribution within the group or organization. Monitoring and evaluation involves choices, among others, of what to look for and what the organization should consider as having value.

An even broader definition of participation is provided by the World Bank, which views participation as the process through which people with a legitimate interest influence and share control over development initiatives and the decisions and resources that affect them. From this broad perspective, participation comprises the following:

> (1) the involvement of stakeholders in any or all phases of the project cycle; (2) the promotion of the role of civil society in the development process; (3) specially designed facilitation methodologies and techniques; (4) decentralized or devolved decision-making; and/or (5) the institutionalization of decentralized or devolved decision-making such that broad stakeholder involvement becomes a normal, expected part of the development process (1995:xi).

A redefinition of participation by Shadid, Prins, and Nos (n.d.), based on a literature review, emphasizes the voluntary and equal-opportunity aspect of participation. They note, "participation means that all members of the target-groups or those concerned have the possibility to take part directly or indirectly in decision-making and evaluation of a distribution system or institution, and have an essential part in its functioning and results" (n.d.:36). However, it does not always follow, they further state, that the form of participation is the same for all participants in all situations. When the "distribution system" or institution is functioning well, participation in decision making and evaluation by everyone may not be necessary. It is in problematic situations that participation becomes essential, such as when the decisions will impact target groups (e.g., those characterized by lack of formal or factual access).

The foregoing discussion provides the framework for the analysis of participation in the 29 CBFM sites as well as in other experiences cited in the literature. Specifically, the authors pose the questions: In what areas of natural resource management and forest governance is participation essential? To what extent do communities actually participate in forest governance decision making as well as in the implementation, sharing of benefits, and evaluation of natural resource management strategies? Who among the community members get to participate in what specific concerns? What institutions and mechanisms for local participation in forest governance actually exist? How do these institutions or mechanisms promote or constrain participation? Are there any differentials in the participation of different groups, i.e., by gender, age, and ethnicity, across different resource management concerns?

Empowerment

In the decentralization discourse, empowerment entails the devolution of functions or responsibilities (Anderson 2000) for undertaking something from a central entity or body to a local one, together with the power or authority and the necessary resources and capacities to do so. A key element of the empowerment process in the area of natural resource is the legitimation of resource users' rights. Ascher (1995:34) identifies the following direct rights:

1. development of forest resources;
2. extraction of forest resources;
3. sale of the outputs;

4. sale of the right to engage in the above activities;
5. share in the income produced by forest uses; and
6. control of resource uses, i.e., to decide on (a) the type of resources to develop, (b) the rates of extraction, (c) people who are allowed to extract, (d) the markets and prices of outputs, and (e) whether resource rights can be sold and the conditions of the sale.

These rights serve as key incentives for sustainable use in that they assure the user of continued access to the resource and its benefits both at present and in the future. In addition to the promise of some benefit, this assurance is given through reduction, in some cases, of the many risks associated with profitable resource use. These risks include others' access, stricter regulation, exclusion by others, low share of communal earnings, low credit, cash shortage, low market prices, and side effects of other forest exploiters (Ascher 1995:32-33).

However, as Borlagdan points out, without the capacity for responsible utilization and management, rights or entitlements can turn out to be quick "sociological fixes" which "involve making other actors, in our case the poor and landless uplanders, responsible for solving the problem" (1996:10). She cites the need for capability building as well as the development of horizontal and vertical linkages (Esman and Uphoff 1984) that will help newly empowered entities deal more effectively with such crucial matters as accessing information and funds, and gaining technical, organizational, and political skills. This type of empowerment is necessary to enable the rights holders to effectively use their rights or entitlements for their own purposes and, therefore, make good the promises that come along with those rights. Korten and Siy (1989) identify the urgent need to create the enabling environment, through policy and bureaucratic reform, to support empowerment. It is for this reason that the DENR's CBFM program emphasizes the need to provide the communities with support, particularly in the areas of community organizing (organizational development) and "linkaging" (DENR MC 97-13).

As described above, empowerment is an externally originated movement or process, with the locus of control held by the central/external figure that shares with or bestows power upon an otherwise passive recipient. An activist view of empowerment is one where entities actively demand the recognition of their rights and entitlements, vigorously seek entry into decision-making processes, and actively participate in the implementation of decisions. From this vantage point,

rights and entitlements are not bestowed but are demanded (Anderson 2000) and negotiated. Corollarily, relationships between and among various stakeholder groups are constantly negotiated. In this perspective, the locus of control remains with the rights holder, i.e., the individual or group, that actively weighs alternatives and decides what is best for himself or itself.

For CBFM, the issue of community empowerment translates into at least two main questions. From the internal locus-of-control perspective, to what extent are communities in fact able to decide for themselves the direction and specifics of their natural resource management activities? From the external perspective, what are the concrete steps taken by government to in fact empower and enable communities?

THE PHILIPPINE CONTEXT

The discussion of forestry governance under CBFM in the Philippines has to be placed in the context of at least two conditions: (1) the devolution process that got underway in 1992 with the promulgation of the 1991 LGC, and (2) multi-stakeholder interest in forest management in the country.

Devolution

As mentioned in earlier chapters, the LGC or RA 7160 transferred to LGUs at the provincial, city, and municipal levels the powers of taxation, budgeting, planning, and management, which were previously the exclusive domain of the central government. These responsibilities were devolved in the context of public administration of basic public services, including environmental management. The law was considered as a landmark legislation, having established mechanisms for direct participation in local governance by members of civil society through allocation of seats in key legislative/decision-making bodies or councils at the local level (Mercado 2000).

The attainment of power, transparency, accountability, equity, efficiency, and effectiveness by LGUs has been the very objective of the devolution process in the context of the LGC (Brillantes 2000:17). This objective is to be concretely met through (1) more effective delivery of basic services and enforcement of certain regulatory powers; (2) provision of legal and institutional mechanisms for the participation of civil society in governance; and (3) availability of increased financial resources to LGUs by broadening their tax powers, providing them with

specific share of the national wealth exploited in the area, increasing their share of national taxes, and enabling them to generate revenues from local fees and charges.

Four specific forest management functions were devolved to LGUs in 1992: (1) implementation of community-based forestry projects (specifically the ISFP, new regular reforestation projects, and family- and community-based contract reforestation projects); (2) management and control of communal forests with an area of 5,000 ha or less to be converted into community forestry projects; (3) management, protection, rehabilitation, and maintenance of small watershed areas serving as local water supply; (4) enforcement of forest laws in community-based forestry project areas, including laws on the prevention of forest fires, apprehension of violators, confiscation of illegally extracted forest products as well as their conveyances, and imposition of penalties for violations (DENR DAO 92-30). The transfer of these functions, however, is governed by a policy which retains the DENR as the primary government agency ultimately responsible for the management of the country's forest resources. This policy further subjects the LGU implementation of the devolved functions to the "supervision, control and review of the DENR" (DENR DAO 92-30).

In compliance with the LGC, the DENR devolved the management of communal forests and community watersheds and the establishment of greenbelts and parks to the local governments, including the approval of minor extraction activities like quarrying for sand and gravel (DENR DAO 92-30; DENR MC 93-31; EO 72). Among the key DENR programs transferred were the Integrated Social Forestry Program, which was among the early major people-oriented forestry programs that laid the ground for a CBFM perspective in the agency. Accordingly, this entailed the turnover of all ISFP projects and personnel from the DENR to the provincial LGUs. This was preceded by the conduct of two-day seminars to orient provincial and municipal LGUs on the devolution process and the signing of the Memoranda of Agreement (MOA) between the DENR and the provincial government (*Devolution Monitor*, November 1993). The responses of various LGUs to the devolution were mixed. There have been reports of governors or mayors taking the lead in environmental governance and seizing the opportunity not only to provide CSCs and livelihood projects to marginal upland dwellers but also to create new programs on reforestation and watershed management, as well as the necessary mechanisms for supporting people's participation in both resource management responsibilities and benefits, e.g., Governor Coscuella of Negros Occidental (Geollegue 2000); Governor

Agbayani of Nueva Vizcaya (Tiongson 2000); and Mayor Calingin of Misamis Oriental (Bernasor and Borlagdan 1999). However, there have also been LGUs that are said to be neglecting community-based forestry and other sustainable forestry concerns in favor of entirely different priorities (Geollegue 2000).

In the context of CBFM, devolution involves the awarding of tenure instruments to upland people as an incentive for them to protect and rehabilitate the uplands. In the study sites, the DENR's CBFM program, which subsumed the ISFP (DENR DAO 96-29), serves as the key vehicle for pursuing the devolution. Hence, among the 26 study sites with CBFM-focused interventions, 10 have been awarded or are in the process of obtaining tenure instruments (9 CBFMAs and 1 CADC). Moreover, in 12 sites, CSCs have been awarded to occupants of the CBFMA area. These instruments are the primary and basic tools of empowerment utilized by the community forestry projects. Table 11 enumerates the rights and responsibilities associated with each of these tenure instruments.

It is interesting to note that in the Implementing Rules and Regulations of the CBFM program (i.e., DENR DAO 96-29), the rights and responsibilities are presented as "incentives and privileges." In contrast, these are labeled as rights and responsibilities in the rules and regulations for identifying and delineating ancestral lands and domains as well as ISFP areas.

The recipients of these rights constitute different social units. CBFMAs and CADCs are released to POs, be they migrant groups or indigenous people's groups, or a combination of both. In turn, CSCs are issued to individuals and families, most often in the context of the ISFP or under the upland component of the Comprehensive Agrarian Reform Program (CARP). Some projects have initiated efforts to grant tenure to individual members or households in CBFM-awarded POs (e.g., Cagayan Valley) under the NRMP, through the formal or informal recognition of the so-called "individual property rights" by the POs. The rights and responsibilities under these individual property rights have not been spelled out, however; it is presumably the POs that will do this according to their particular circumstances (Mickelwait, Harker, and Guiang 1999).

Other features of the instruments that must be highlighted are the non-transferability of CBFMAs and the provision of DENR DAO 96-29 which makes CSCs transferable. With the passage of the IPRA, CALCs and CADCs will be convertible into Certificates of Ancestral Land Title (CALTs) and Certificates of Ancestral Domain Title (CADTs), respectively. While the subsequent CALTs

Table 11. Rights and responsibilities associated with tenure instruments

CBFMA[a]	CADC[b]	CALC[b]	CSC[c]
Rights • Occupy, possess, utilize, and develop forestlands and resources within the CBFMA area, and claim improvements • Allocate and enforce among members the rights to sustainable use and management of forest resources • Be exempt from paying rent and forest charges on plantation-sourced timber and non-timber products • Be properly informed and consulted about planned government projects in the area • Be given preferential access to assistance in resource management planning and implementation (i.e., through the CRMF, RUP, and AWP) • Receive all income and proceeds from sustainable forest utilization, subject to the NIPAS Act	*Rights* • Occupy, cultivate, and utilize the land and all natural resources, and reside peacefully within the domain • Benefit and share in the profits from the allocation and utilization of natural resources • Regulate entry of migrant settlers in coordination with LGUs, NGOs, and the like • Negotiate the terms and conditions for the exploitation of natural resources • Actively and collectively participate in formulating and implementing government projects • Lay claims on adjacent areas • Access various forms of assistance from the DENR and other agencies • Claim ownership of all improvements made	*Rights* • Peacefully occupy and cultivate land, and utilize the natural resources therein • (Of heirs) Succeed to the claims • Exclude from the claim any person who does not belong to the family or clan • Utilize trees and other forest products inside the ancestral land, subject to rules and customary laws *Responsibilities* • Manage and work on the land in accordance with indigenous and other appropriate land uses, methods, and practices • Effect parcellary survey of the claimed area • Protect and conserve the forest growth within the area, and cooperate in protecting adjacent areas • Preserve monuments/landmarks	*Rights* • Peacefully possess and cultivate the land and enjoy the fruits thereof • Manage and work on the land in accordance with appropriate forest and farm methods and practices • (Of heirs) Inherit the rights and privileges of the holder in the event of death or incapacity, provided the heirs work and develop the lands themselves • Receive fair compensation for permanent improvements in the event of cancellation • Upon expiration of the CSC, hold the right of presumption to any subsequent CSC to be awarded on the land

Table 11 (cont.)

CBFMA[a]	CADC[b]	CALC[b]	CSC[c]
• Enter into agreements and contracts with public/private entities to develop the area, in whole or part, with certain caveats *Responsibilities* • Participate in site identification and selection, boundary delineation, and parcellary surveys • Designate land uses and allocate and enforce natural resource rights in accordance with the law • Prepare and implement CRMFs, RUPs, and AWPs • Develop/implement equitable benefit-sharing • Protect, rehabilitate, and conserve the natural resources within the CBFMA area, and help government protect adjacent areas • Develop and enforce policies pertaining to the rights and responsibilities of PO members and the accountability of leaders	*Responsibilities* • Prepare an ancestral domain management plan • Establish and activate indigenous practices to protect, conserve, and develop natural resources and wildlife sanctuaries • Protect flora, fauna, watershed areas, and other forest and mineral reserves • Protect and conserve forest trees and other vegetation, especially along rivers, streams, and channels • Preserve the natural features of the domain	• Prevent and suppress fires • Refrain from cutting or harvesting naturally growing trees along rivers, streams, and channels	*Responsibilities* • Strictly observe and/or implement environmental protection and conservation measures • Protect and conserve the forest growth of the land and cooperate with government in protecting adjacent lands • Avoid cutting trees or saplings from strips of 20 meters alongside the banks of creeks, rivers, or streams • Prevent and suppress unregulated fires and help in extinguishing forest fires • Develop the land for crop production to increase the productivity of the area • Participate in the preparation of the Five-Year Development Plan, and establish agroforestry nursery • Assist in perimeter and parcellary surveys

Table 11 (cont.)

CBFMA[a]	CADC[b]	CALC[b]	CSC[c]
• Develop equitable mechanisms for addressing conflicts • Promote transparent participatory management • Pay forest charges (on timber and non-timber products from outside plantations) as well as fees and other taxes • Undertake other responsibilities stipulated in the CBFMA			• Develop at least 20 percent of the land every year to ensure full development within five years in accordance with the Five-Year Development Plan • Avoid using tenant labor • Permit the opening of land for the road right-of-way • Coordinate and tie up with financing institutions

[a]DENR DAO 96-29.

[b]DENR DAO 93-02.

[c]DENR-UDP (1989).

will be presumably transferable as they are issued to individuals or families, the CADTs, which will be awarded to organizations, may not be.

A cursory examination of Table 11 reveals the larger number of responsibilities than rights associated with CBFMAs and CSCs. Moreover, the right to participate in forest governance is mentioned in the CBFMA and CADC but not in the individual tenure instruments. With the CBFMA, the rights to allocate and enforce rights and to enter into agreements and contracts serve as the POs' entry point in forest governance. In turn, with the CADC, the entry points are the rights to negotiate the terms and conditions for the exploitation of natural resources, and to actively and collectively participate in the formulation and implementation of government projects. Between these two, the CBFMA promises greater autonomy in the allocation and management of natural resources. The CADC merely gives the right to be heard vis-à-vis externally initiated interventions. Given this weakness of the CADC, indigenous peoples which have been awarded CADCs (e.g., Higaonon of Minalwang in Misamis Oriental) need to also obtain CBFMAs in order to gain greater autonomy in resource management.

Multiple Users, Multiple Interests

Being a multi-user concern (PWG 1999), CBFM reckons among several stakeholder groups. From the perspective of sustainable development, the decision on who will be considered as primary resource managers depends on two basic things: (1) degree of dependence on the forest resource for subsistence and livelihood, and (2) residence or distance from the resource (DENR MC 97-13). In the absence of clear management structures, primary stakeholders living within or nearest to the forestlands, in fact, serve as the de facto forest managers as it is these "primary or core communities and secondary forest users . . . who extract from the forest and whose cultures and activities are critical to the stability of the forest" (PWG 1999). The DENR's CBFM program attempts to make these primary stakeholders the de jure forest managers as well.

However, it is important to point out that people in forests or at the forest margins are not the only ones who decide on the fate of the biodiversity of an area. Enters and Anderson (2000:169) stress:

> Industrial logging, large-scale forest conversion, road construction, mining and other activities may, as McGrath (1997) reminds us, pose greater threats.

> Besides rural people, many influential and powerful stakeholders influence biodiversity and affect the success or failure of conservation projects. (However) . . . their activities are easier to regulate (although rampant illegal logging and massive forest conversion to plantation crops in some countries have been equally hard to stop) and second, their dependence on natural forests is not crucial for their livelihoods, meaning that they are able to adjust more easily to a new situation or the imposition of restrictions.

The following presents the various stakeholder groups and their roles and functions in forest governance, followed by their interests in or incentives from forest governance.

User Groups, Their Roles and Functions

Primary stakeholder groups may be further distinguished into indigenous peoples who are considered as the original forest dwellers, and upland farmers who are, more often than not, migrants or descendants of migrants from lower-lying areas. Because of their direct utilization of and dependence on forestlands and resources, they act as de facto managers of forestlands. They are increasingly being represented by POs under the auspices of government-initiated CBFM projects. Such POs are envisioned to serve as intermediaries (Esman and Uphoff 1984) and articulate local needs and actions (PWG 1999; DENR DAO 96-29; DENR-UDP 1989). The exact number of de facto forest resource managers is unknown as the DENR statistics do not reflect the size of the population actually living in forestlands and managing the resources (PWG 1999).

LGUs and their constituencies may be regarded as secondary stakeholders. This second group encompasses the populations immediately downstream of the forest resources that are the first to feel the impact of the state of forest resources. Positive impacts include adequate water for irrigation and energy, and services and revenues generated from forest resources; while negative impacts consist of dwindling water supply owing to deforestation, immobilized dams and irrigation systems, siltation of dams and agricultural lands, and flooding. Owing to the interrelatedness of the ecosystems, secondary stakeholder groups can extend to the coastal fishers and residents whose livelihoods are affected by siltation, flooding, or inadequacy of water supply and timber resources resulting from the ecological conditions in the upland areas.

Another stakeholder is the DENR, the government agency mandated by law to manage and govern the development and conservation of the country's natural resources, as well as its subsidiaries, i.e., the FMB and the regional and field offices. As mentioned earlier, the DENR wields vast powers (EO 192) in implementing national policy primarily through the issuance and enforcement of the implementing rules and regulations of programs (Mickelwait, Harker, and Guiang 1999). Consequently, among the NGAs, it is the DENR which has the greatest influence on the lives of primary stakeholder groups and the state of the country's forest resources.

Still constituting the stakeholders are other government agencies, NGOs and other civil society groups, academic or training institutions, business firms or individuals, and donor agencies. NGOs and other civil society groups serve as "catalysts in facilitating conducive relations amongst the different sectors of the larger community and in initiating policy responses" (PWG 1999). Academic or training institutions provide valuable research and capability-building support services. Business firms or individuals (also known as "the private sector"), by patronizing forest goods and services and/or providing supporting services, in return, initiate and sustain resource management efforts. Donor agencies influence the direction of community management efforts through funds and funding policies.

Aside from these stakeholder groups, several principal actors control the fate of CBFM at the national level. These are (1) the Office of the President, whose EO 263 serves as the basis for the promotion of CBFM as the sustainable forest management strategy of the country; (2) the Legislature, which has passed republic acts, three of which are of major importance to CBFM (i.e., NIPAS Act of 1992, IPRA of 1997, and LGC of 1991);[1] and (3) the Departments which issue and enforce the implementing rules and regulations of programs. Regarded as potentially significant actors are (4) the NCIP, which was created to implement the IPRA but experienced start-up difficulties owing to considerable political constraints; and (5) the CBFM National People's Organization Federation, which was established within the DENR's CBFM program (Mickelwait, Harker, and Guiang 1999).

Table 12 outlines the key stakeholder groups in CBFM and the roles and functions which the CBFM philosophy and strategies suggest that they play. A

[1]A proposed Sustainable Forest Management Act was almost passed in 1998.

key point of interest for this research is whether or not the various key players do indeed perform these roles and functions in the course of their CBFM efforts, and what factors facilitate or impede their doing so.

Table 12. Key players in community forestry, as well as their roles and functions

Key players	Roles and functions
Communities (indigenous peoples and migrants)	• As holders of tenure and resource use rights over forests and forestlands, plan and direct the course of development of their natural resources • Protect, manage, and develop tenured lands • Assist members and expand membership • Develop and manage community enterprises • Link the community with service providers and resource institutions • Organize and manage community organizations
LGUs	• Endorse tenure applications and claims, and lobby for the issuance of resource use rights to communities • Initiate tenurial applications from communities based on the forest land use plans prepared by the DENR and LGU • Plan and provide budget support (from the 20-percent development fund) for economic infrastructure, extension services, social services, and community strengthening • Use political power to lobby for support (from NGAs, NGOs, and private sector) to communities and changes in national policies
DENR and NCIP	• Assist communities in applying for and processing tenure and resource use rights over forests and forestlands • Help communities in obtain support from the LGUs, NGAs, and NGOs • Guide communities in preparing their management and operations plans • Provide technical advice to communities in their efforts to protect, manage, and develop their forests and forestlands
NGOs	• Work with the DENR, NCIP, and LGUs to organize and capacitate the communities • Access microfinance and microcredit funds for communities • Advocate for the recognition of the communities' rights, and link them with other service providers

Table 12 (cont.)

Key players	Roles and functions
Academic and research institutions	• Extend research services to government and nongovernment groups, local and international communities, funding agencies, and potentially to the private sector as well • Render capability-building assistance to various sectors
Private sector	• Provide market and operational funds to communities with resource use rights or to those involved in the production of "high-value crops" • Link communities to providers of excellent production and processing technologies • Provide equipment, technical assistance, and training to key community leaders
Other government agencies	• Give the necessary technical assistance and support to communities if these will fit within their priorities • Link the communities with other resource institutions and service providers
Donor/funding agencies	• Extend funding assistance directly to communities or to service providers and/or research and academic organizations • By setting the structure and framework for funding, influence the structure for the participation of various stakeholders

Source: Guiang and others (2001).

Interests and Incentives

In the Workshop on Community-Based Strategies for Natural Resource Management, the participants representing POs, NGOs, and NGAs identified community and environmental issues and concerns related to natural resource management, as follows:

1. resource depletion and habitat destruction,
2. competition for resources,
3. land tenure and landownership,
4. support services and LGU support,
5. economic opportunities and alternatives,

6. institutional and management capability concerns, and
7. population growth and concomitant pressure on resources (VSO-P, FPE, and NIPA 1999).

The above concerns explain many of the key incentives that different stakeholder groups, except donor agencies and coastal residents, have for engaging in the community-based management of their natural resources, including forest resources (Guiang and others 2001; see also Table 13).

Table 13. Typical incentives for the community management of natural resources*

Stakeholder groups	Key incentives
Indigenous peoples	• Recognition (tenure) of customary rights to their lands and natural resources • Capacity building for community enterprises • Access to infrastructure (roads and bridges) • Provision of social infrastructure (education, health, welfare)
Upland farmers	• Tenure (communal or defined individual property rights) over their occupied/cultivated lands • Use rights over natural resources, particularly forest products • Access to infrastructure (roads and bridges) • Capacity building for community organizations and enterprises • Technical assistance in the application of appropriate upland production technologies
LGUs	• Increased and expanded constituency base • Increased revenues, financial capacity, and improved efficiency • Reclassification of LGUs to a higher category
NGA field offices	• Capacity building to improve existing skills and knowledge • Opportunity to focus on the provision of technical support to communities rather than impose and implement centrally designed programs and projects
NGOs/civil society groups	Opportunities to participate in local governance structures, advocacy, and capacity building of communities

Table 13 (cont.)

Stakeholder groups	Key incentives
Academic/research and training institutions	Opportunities to participate (and be strengthened) in capacity-building exercises
Private sector (firms/individuals)	• Reduced transaction costs in doing business • Predictable and stable supply of natural resource products and services • Reduced cost of marketing and processing these products and services

*Adapted from Guiang and others (2001).

THE VIEW FROM THE FIELD

This section attempts to directly answer the questions raised in the analytical framework by looking into the field experiences of community-based natural resource management in the field over the past years. The discussion is spread into 10 subsections that roughly correspond to the main topics described below. It is based on interpretations of data from the 29 sites visited, where available, as well as salient research data, reports, and documentation of other local experiences. Field experiences are thus drawn from primary and secondary data.

Based on the questions posed earlier, governance in this report focuses on the following main topics: (1) the rights and responsibilities devolved to communities under CBFM, including the entities–individuals or organizations–that actually wield the authority and undertake the functions that underlie these rights and responsibilities; (2) the manner in which the individuals or entities involved exercise these rights and responsibilities; and (3) the social negotiation processes that take place in the course of the exercise or attempts at exercising these rights and responsibilities. The subject of participation centers on: (4) areas of community participation in actual natural resource management; (5) extent of community participation; (6) identification of natural resource management participants and natural resource managers; (7) existing or "established" mechanisms which facilitate or constrain participation; and (8) participation differentials between and among the different groups. Finally, empowerment is concerned with (9) the different strategies and mechanisms by which communities articulate their demands and make themselves heard by government and other

groups; and (10) the enabling mechanisms that government and other groups, in turn, strive to create in support of community empowerment. These topics serve as the organizing principle for the presentation of field data. However, the discussion does not necessarily follow the order in which they are presented above to allow for a smoother unfolding of the Philippine CBFM story.

In discussing the ramification of governance in CBFM, this section makes the distinction between self-management of indigenous peoples in the 5 self-initiated sites and the largely project-led management of communities and organizations in the other 24 sites. This study's recognition of project-led management in the 24 sites does not preclude possible self-governance by the communities under what the authors call "de facto" community management (Guiang 2000), or simply "community management" (Korten 1986). Community management systems are assumed to be a result of the community members' day-to-day interactions with the resource base and with one another in relation to the resources while they strive to meet their daily requirements (Korten 1986). Project-centered CBFM interventions aim to transform de facto management systems into one that is more in keeping with expectations of how sustainable forest management should be undertaken and how sustainable forestry might be achieved.

Among the 29 sites, only 3 have not been placed directly under or linked up with any DENR-CBFM-supported project. These sites are located in Banaue, Bontoc, and Sagada. Belonging to the self-initiated category of CBFM sites, these communities practice indigenous forestry through family-based arrangements (see discussion in Chapter 4). All the rest, including the Kalahan site in Sta Fe., Nueva Vizcaya, had interactions with government or NGOs in the process of setting up community-based forestry structures, mostly through the acquisition of tenure, promotion of natural resource management practices, and community organizing.

The Resource Managers, Their Roles and Functions

The preceding discussion on resource management rights and responsibilities identifies three levels of resource managers. At the first level are the site-based resource managers identified de jure by CBFMAs, CADCs, and CSCs, or de facto, by their occupation, cultivation, and use of forestlands. They can be further categorized by social units. At the lowest level is the individual and his/her family and/or household that may have received a tenure instrument directly or indirectly (i.e., through his/her membership in a PO). Above this level

is the tenured organization that has received the mandate for resource management through the CBFMA. Being the most proximate to the resource and the most dependent upon it, these groups are envisioned to serve as the "social fence" (Mickelwait, Harker, and Guiang 1999) that will develop, protect, and ensure its sustainability.

Data from the 29 sites show that resource management processes of these groups involve primarily the application of sustainable upland agricultural technologies, tree-planting and reforestation activities, and organizational activities that serve as fora for some semblance of collective planning, rule making, problem solving, and conflict resolution which aim to mobilize collective action toward forest management work, and to access resources from external agents.

The LGUs constitute the next level of resource managers by virtue of their mandate from the LGC. Based on data from the research and other sites in which the LGUs have played a prominent role (Salazar 1996; Tiongson 2000; Geollegue 2000; Nierras 2000; Bernasor and Borlagdan 1999), resource management functions of the LGUs include (1) support for and implementation of land use planning activities; (2) creation of institutional arrangements between and among LGUs and POs, DENR, NGOs, and other groups that extend support to CBFM; (3) extension of financial and manpower support for PO formation, training, and planning and implementation of livelihood projects; (4) extension of credit to individuals and organizations; and (5) brokering of the delivery of services and/or resources from other private or public sector groups.

The third level of resource managers consists of the national government, which the DENR represents. Its omnipresence in almost all the 29 sites shows the DENR as clearly wielding the ultimate power and authority in forest management. It is largely responsible for initiating CBFM activities in the national program sites, and for eliciting the participation of NGOs and other groups in CBFM through its issuance of tenure instruments, regulation of forestry activities, and implementation of well-funded projects (Korten 1993). It controls the budget for all government-sponsored CBFM projects and has the final say, in the form of administrative orders or memorandum circulars, in the allocation and use of natural resources by other resource managers. With its regulatory and taxation powers (through the imposition of forest and other charges), it continues to brandish the whip over other resource users and managers as well.

The uneven distribution of power among the three levels of resource managers is best illustrated in the move of the DENR Secretary in 1998 to suspend the issuance of resource use rights to tenured organizations based on the allegations of abuses by CBFM POs (Mickelwait, Harker, and Guiang 1999). Investigations later proved the allegations to be false and instead highlighted the effectiveness of the forest protection activities of the local communities (DENR-NRMP 1999). Communities regained their utilization rights in March 2000 (DENR DAO 2000-29). However, while the suspension was in effect, the DENR refused to renew the annual work plans and harvesting rights of the communities. This had the negative effect of reducing the PO's incentives and means for participation in forest management as the harvesting activities served as their main local source of funding for forest management activities, livelihood generation, and organizational maintenance (see the case of the NPPFRDC in Compostela Valley in IPC [2001]). Of this experience, DAI remarks, ". . . more threatening to the CBFM cause, because implementing rules for national policies are issued by a department, [is the fact that] the nation's strategy for sustainable forestry is controlled by one department and can be countermanded at any time by the Secretary" (1999:4).

Governance Processes and Mechanisms

As mentioned earlier, the community forestry project is the primary vehicle for mobilizing community participation in forest governance in locally assisted and national program sites. In the 26 sites, at least three groups spearhead the implementation of these projects. The first group consists of the DENR, especially in national program sites. The second involves the NGOs, most of which are under contract with the DENR for project implementation purposes (e.g., ADB-assisted CSD projects). A few NGOs like the ICRAF and the MBRLC work in the CBFM sites as part of their own commitment to research and extension. And the third is made up of the POs which largely operate autonomously of development agents from the DENR or NGOs. The POs of the Ikalahan (KEF), Guba (Mag-Uugmad Foundation, Inc.), Bulolacao (KMYLB), and Labo-Capalonga (TKFI) exemplify this group. All three have "graduated" from direct NGO support (e.g., PAFID, in the case of the KEF; World Neighbors, in the case of Mag-uugmad Foundation; PAFID and PBSP in the case of the KMYLB; and BURDFI, in the case of the TKFI. In addition, the KMYLB was able to receive direct assistance from NGO-trained and supervised DENR organizers.

The projects can be seen as playing a two-pronged function: the building of local capacity for collective action around natural resource management through various processes; and the negotiation and installation of forest governance mechanisms to get communities on the road toward sustainable forest management. In light of the second function, the various processes involved in project implementation also serve as de facto governance processes for the sites.

The various processes followed by the projects in the three types of sites more or less conform to those outlined by workshop groups from NGOs, POs, and government organizations (GOs) in a 1999 conference sponsored by the Voluntary Services Overseas Philippines (VSO-P), Foundation for the Philippine Environment (FPE), and NGOs for Integrated Protected Areas (NIPA; see Table 14). A close look into the table reveals more similarities than differences among the three groups. Noteworthy is the emphasis on various forms of community organizing and capacity building through training. Another is the conduct of data gathering for assessment, problem identification, and preplanning purposes. With regard to the differences, one type of NGO group stands out in its inclusion of gender sensitivity training in the CBFM process.

At least two key processes which deserve mention have been left out. One is the planning and implementation of various income-generating projects by POs and NGO implementers, often accompanied by the sourcing of external funds. Another is the resource management planning and preparation of documents, such as the community resource management framework (CRMF), annual work plan (AWP), and resource use plan (RUP), which the DENR requires from GO-supported projects.

These processes serve as opportunities for dealing with governance issues, whether in the allocation of rights and privileges; direction and goal setting; planning, rule setting, and implementation; problem solving; monitoring; capacity building; benefit distribution; conflict resolution; or rule enforcement. Where these processes do not exist in a formal way, like in the self-initiated sites, indigenous institutions, like traditional meetings or assemblies, serve as the mechanism for planning, updating, and conflict resolution. In self-initiated sites of indigenous peoples, the elders or council of elders presides over these activities (e.g., Ikalahan, Ifugao). Local officials representing the barangay organization are commonly represented in these meetings and discussions (e.g., Ifugao). Close ties between traditional leadership structures and government-sponsored barangay

organizations indicate some amount of accommodation by traditional structures of new and state-imposed structures.

Table 14. Key processes followed by the three groups of project implementers in the community forestry sites*

Implementers	Processes
PO	• Identification of problems/issues through PRA or house-to-house consultation • Conduct of barangay meetings to identify the issues and gather information • Community organizing (training, meeting, mobilization, and consultation) • Awareness raising (environmental education; participatory learning and action) • Establishment of links with the LGU, DENR, and NGOs • Mobilization of people for advocacy/lobbying • Conduct of regular meetings/monitoring with the PO general assembly
GO (DENR)	• Entry • Community organizing • Institutional building and strengthening (organization formation and training) • Resource assessment (site appraisal) • Training and education (information, education, communication) • Alternative livelihood • Feasibility studies • Monitoring and evaluation
NGO (Group A)	• Data gathering (PRA) and analysis by the people themselves • Integration (i.e., of NGOs into the community assessing perceived threats) • Gender sensitivity • Project cycle - Integration (data gathering and immersion, analysis/validation) - Preplanning/formulation of resource management plan - Implementation, monitoring and evaluation, updating, refining, and replanning

Table 14 (cont.)

Implementers	Processes
NGO (Group B)	• Identification of core group/contacts • Data gathering (biophysical survey; PRA; needs assessment) • Capacity building (development of leaders; empowerment; strengthening of local ownership) • Resource management planning - stakeholder identification and mobilization - issue identification - vision, mission, and goal setting - core group formulation - PO formation and strengthening - mobilization

*Adapted from VSO-P, FPE, and NIPA (1999).

Further, in the self-initiated sites, traditional mechanisms for transmitting knowledge, customs, and traditions support governance processes. Deeply held values regarding the forest are transferred from parents to children, from the elders to the young. Among the Ifugao, communal housing traditions for the unmarried youth, which place male and female children of a lineage in separate communal houses, are the venues for the transmission of values (see the case of the Ifugao in IPC [2001]; and the film entitled "Mountains of Water"). Periodic rituals serve to remind the community of the importance of observing these values.

In sites where indigenous peoples dominate–self-initiated sites as well as the Mt. Kitanglad Natural Forest Park–other indigenous governance structures include the council of elders, cultural prescriptions and norms, traditional assemblies and meetings, and rituals. In some sites, distinction is made between family-owned and managed "corporate" forests and community-managed forests (as in the case of the *muyong* or *pinugo* owned by individual families and the *inalahan*, which is community-managed). The tradition-based social organization of the indigenous people's community assures the access of individual households to land which has been with the family for generations and the orderly transfer of ownership to heirs. Cultural norms and prescriptions similarly set the standard for proper forest management (see the case of the Ifugao and the Bontoc in IPC [2001]). Indigenous forest management practices ensure the replacement of trees

that have been cut, and forest-clearing practices make provisions for the avoidance of accidental forest fires (e.g., Kalahan Forest Reserve).

Lacking the homogeneity and shared institutions of indigenous peoples, migrant communities in locally assisted and national program sites have mostly the PO, with its procedures, rules, and regulations, as the fundamental structure of governance. In addition to the PO, or in its absence, there are the barangay councils and supporting LGUs, as well as their ordinances and committees which have administrative jurisdiction over their respective forestlands and people. Barangay captains and barangay council members settle land and domestic disputes. The PO and LGU officials, in turn, handle issues on the allocation of rights to participate in the distribution of benefits from CBFM activities.

Community Participation in Governance

With the projects serving as the entry point, community participation in forest governance may be viewed from the perspective of decision-making and social negotiation processes that underlie the conception, planning, and implementation of the projects. Box 3 enumerates these processes, which also serve as the institutional foundations of organizations (Fisher 1992).

Box 3. Key governance processes that underlie institutions

- Determination of the "problematique," or the focus of the organization, priority setting, and action planning
- Identification and implementation of problem-solving/goal-seeking strategies
- Identification, capacitation, and accountability setting of members and leaders
- Formulation of the decision to implement specific activities and to do so in a particular site
- Sourcing and mobilization of resources
- Installation of organizational processes and controls
- Policymaking with regard to membership, procedures, rules of conduct, benefit sharing, and sanctions for violations
- Resolution of conflicts

Governance Mechanisms

Some of the specific mechanisms employed in the 29 sites are listed in Table 15. Based on the available data, the four most popular mechanisms seem to

be LGU engagement, regular community meetings, community mapping, and regular/intermittent planning and review or validation workshops.

Table 15. Specific mechanisms introduced to assist in forest governance

Mechanisms	Number of sites			
	Self-initiated	Locally assisted	National program	Total (%)
Problem definition, goal setting, planning, conflict resolution				
• Regular community meetings	5	6	8	19 (67)
• Regular/intermittent planning and review workshops	2	7	7	16 (55)
Data gathering to aid in planning				
• Community mapping	3	5	10	18 (62)
• Land use planning	2	4	8	14 (48)
• PO-level resource inventory	2	4	9	15 (52)
Technical and organizational capacity-building				
• Farmer-to-farmer extension	1	6	8	15 (52)
• Internal PO control	1	2	8	11 (38)
Accessing and mobilization of resources, including allies				
• LGU engagement	5	7	9	21 (72)
• Revival of traditional workgroups	3	4	4	11 (38)
• Multisectoral monitoring and management committees	2	6	7	15 (52)
• Community-based biodiversity monitoring system	1	3	1	5 (17)

Community meetings. In both self-initiated and locally assisted sites, community meetings are the primary means of face-to-face communication between organization leaders and members as well as among members. These normally serve as venue for planning, decision making, information dissemination, consultation, problem solving, and conflict resolution. In self-initiated sites, community meetings are institutionalized, with an elder or a council of elders presiding, and are held in a particular location.

Community mapping. Community mapping in CBFM (ESSC 1998) is a project-introduced activity whose objective is not only accurate data gathering through community participation but also community empowerment in the sense of community members (1) exercising authority over the facilitator and other outsiders through superior knowledge of the site; (2) gaining ownership of the knowledge, issues, and opportunities generated; and (3) engaging outsiders in a learning process that results in greater awareness of underlying community issues and concerns. In national program sites, this was institutionalized in CBFM areas through DENR MC 97-13, and a resource institution produced a manual for the process (ESSC 1998). This manualization served to culminate the development and use of process- and participatory-oriented data-gathering methodologies that improved on the old baseline data-gathering methodologies of the DENR (see, for instance, UDP [1991]). This development was largely influenced by the story of the Rapid Rural Appraisal (RRA) methodology which was created by development researchers and consultants and evolved into the PRA methodology, of which community mapping is a part (Chambers 1992).

Land use planning. Land use planning activities provide the structure for the orderly gathering of empirical and secondary data on the physical, social, economic, and political attributes of forestlands, which then serve as the informed bases of local governments' municipal plans for the upland areas (Paz 1999). Developed by the NRMP, this process involves the LGUs, the DENR, and POs in a dialogue on CBFM priorities. It serves as a venue for team building among the three groups, from which later partnerships will emerge. More importantly, it is an occasion for social negotiations on resource allocation priorities.

Planning and review/approval workshops. A central feature of the CBFMA is the provision requiring POs to prepare three kinds of plans: the CRMF, the AWP, and the RUP. The process for this undertaking was developed by the NRMP (DENR-NRMP 1999) and institutionalized by the DENR through DAO 96-29.

The process involves the conduct of training prior to the planning workshops, followed by the preparation of the planning document, and its review and approval in an en banc meeting among the DENR, PO, LGU, and NGO representatives. These activities provide the opportunity and venue for social negotiations on specific resource allocation issues, particularly in the area of resource utilization involving the determination of annual allowable cuts and the coverage area of the cutting activity.

However, at least two problems beset the process. One, the requirements of the management plans are patterned after TLA documents. The level of complexity is such that the NGOs or consultants end up preparing the documents for the POs. Two, the social negotiation process is often largely determined by the DENR, whose position in the resource allocation process generally serves as the basis of final decisions.

Training. This is a key feature of the community organizing and capability-building strategies of NGOs and professionals assisting in CBFM. Generally, this covers agroforestry with farm planning, data gathering for community mapping or land use planning, and specific forest management techniques like nursery establishment and tree marking. Early agroforestry training in RRDP and UDP projects popularized the use of cross-farm visits to facilitate learning. Other groups like Mag-uugmad Foundation (Cebu) and the ICRAF (Landcare sites) have adopted farmer-to-farmer extension systems.

In the process of attending training and applying the technologies taught, the communities develop farmer-trainers who will serve as resource persons both on-site and off-site (e.g., Guba, Bulolacao, Masaraga). To tap these skills, the DENR encourages the creation of training centers in ISFP sites where agroforestry technologies and projects can also be showcased (Borlagdan and Paz 1996).

Other NGOs conduct training on organizational skills such as team building, problem identification and priority setting, and conflict resolution. Social development NGOs tend to differ from other trainers because their training curricula encourage introspection following an action-reflection framework and group-based commitment-building process (see UDP [1991]).

Participation of the Upland People

For the most part in locally assisted and national program sites, the POs created for the purpose serve as the main vehicle for participation in forest governance. Specifically, the upland people gained entry through their membership in the PO, which has also opened the doors to participation in resource management activities, including the benefits discussed in Chapter 3 (i.e., allocation of rights to land, utilization of resources, training, livelihood projects, credit). In many national program sites (e.g., Marayag, Davao del Sur; Napnapan, Compostela Valley), non-PO members are generally excluded from CBFM activities.

The involvement of community members in PO-based activities varies. Following the example of Bulolacao (Borlagdan 1987), there are generally two types of PO meetings: the general assembly, which is either the regular meeting or the special or emergency meeting (i.e., meeting called as the need arises); and the officers' caucus. In the general assembly, the general membership is normally updated on organizational matters, plans, and activities. Moreover, issues for decision making, such as policies, procedures, and conflicts, are raised to obtain the sentiment and suggestions of the members. In the officers' caucus, PO leaders discuss key concerns that need to be decided on and/or taken up with the general assembly.

Other formal venues for such exchanges between leaders and members are the discussions held during capacity-building training or workshops. Training and workshops also serve as springboard for data gathering and planning activities like community mapping (ESSC 1998), land use planning (Paz 1999), resource inventory, and CRMF, AWP, and RUP formulation. Except the few mature sites, like Sta. Fe, Guba, and Bulolacao, in which internal training capabilities have been developed, training and workshops in the sites normally involve resource persons from NGOs, the DENR, and other agencies, as well as technical assistants or assisting professionals. They also involve financial assistance from various sources, including the LGUs (Nierras 2000; Bernasor and Borlagdan 1999).

It is not clear from the field data how participation by specific individuals in training and workshops is determined and who determines this. Process documentation data of 1997 on Bulolacao reveals that this matter was a subject of discussion in both officers' caucuses and general assemblies (Borlagdan 1987). However, there is a need to verify whether or not this practice is upheld to this day. Based on the researchers' experiences in CBFM-related training and workshops, PO officials, NGO organizers, or the DENR identifies the participants. There have also been cases in which mere availability serves as the primary basis for participation.

In the implementation of specific activities and processes, committees serve as a key vehicle for participation by community members and workgroups (see IPC [2001] for the cases of KBFAI in Sta. Catalina, Atimonan, Quezon; TKFPI in Labo, Camarines Norte; KEF in Sta. Fe, Nueva Vizcaya; and NPPFRDC in Compostela Valley; Borlagdan 1987, 1999). They further act as a mechanism for the development of leadership skills and eventually the emergence of later generations of PO leadership (Borlagdan 1987). Membership in these committees

is normally voluntary, but the committee leaders may be elected by their respective members.

Scale and Scope of Resource Management

In the area of actual resource management, some variation in emphasis is observed among the three types of sites. Self-initiated sites tend to focus on the use, conservation, and protection of individually held forestlands, which may be individually, family-, or clan-owned. Local norms and conformity mechanisms govern the access to and use of communal areas. In locally assisted sites, individual management of landholdings is promoted through agroforestry and farm planning activities, with emphasis on sustainable upland farming systems and soil and water conservation. At the PO level, reforestation and protection of common areas are undertaken, in some cases with support from the DENR. In national program sites, these activities are also carried out, in addition to coordination and conflict resolution among POs, sometimes in the context of federations of cooperatives.

This variation seems to be unrelated to the scale of the resource area, as can be seen in Table 16, which is based on the available data on the coverage area of 23 of the 29 sites. It seems, however, that self-initiated and locally assisted sites tend to be smaller while national program sites tend to be larger. The three national program sites covering 500 ha each were pilot sites of the RRDP in the 1980s and were not integrated into more recent and larger national programs. These sites have retained their focus on upland farm management. Coordination functions of POs take place in both medium and large sites.

Table 16. Type of CBFM site and size of CBFM area

Type of site	Small (< 500 ha)	Medium (500-5,000 ha)	Large (> 5,000 ha)	Total
Self-initiated	2	0	1	3
Locally assisted	4	1	1	6
National program	3	8	3	14
Total	9	9	5	23

Factors Motivating and Constraining Participation

The reasons for participation in PO activities can be gleaned from the research of Jackson (2000) on three upland agricultural communities in Cebu Province. Table 17 lists the benefits mentioned by these three communities from an individual perspective and the benefits identified by the communities in the 29 sites from an organizational perspective.

Reports from NGO and GO project implementers also point to various factors hindering community participation in forest governance. Some of the major constraints identified in selected key materials are summarized in Table 18. Of the four materials, only one (Dugan 1989) is placed in the context of a specific project site; the rest are programmatic in perspective.

The constraints may be grouped into the following: (1) the communities' lack of organizational, technical, and financial capacities; (2) deficiencies in policy, strategy, and project design (including the absence of secure tenure, rigid documentation requirements, and inflexibility); (3) inadequate capacity of the DENR for service delivery; and (4) attitudinal problems and deficiency in people skills within the bureaucracy and among project/program implementers.

Participation Differentials

Women's active participation in natural resource management activities, particularly among indigenous people and migrant groups, has been documented (Mercado, Salazar, and Sabban 1999; Rivas, Uy, and Borlagdan 1991; Borlagdan and others 1988; Royo-Fay 1992; Castillo, Siapno, and Abrigo 1999; Pader 1993) and widely recognized (Illo 1991, 1988; Hobley 1996). The reports indicate minimal women involvement in such resource management activities as reforestation (Castillo, Siapno, and Abrigo 1999) and agroforestry training and farm planning (Borlagdan and others 1988), and even in PO processes (DENR-NCRFW-AWCF-CIDA 2000), although they have considerable labor contribution to activities like nursery establishment and maintenance, as well as actual farm management.

In Benguet, minimal participation of women in reforestation is reportedly brought about by traditional presumptions that women are unfit for heavy physical work which reforestation entails, and that they lack freedom, with most of them needing to secure the consent of their husbands to participate in project

activities (Castillo, Siapno, and Abrigo 1999). The same exclusion from the opportunity to earn income from employment in reforestation work energized the women of Bulolacao to organize themselves and negotiate a separate reforestation contract from the PO. However, they have to endure greater distances and lower pay (Borlagdan and others 1988).

Table 17. Benefits of community participation in the PO and its resource management activities

Individual perspective	PO perspective
• Learning on the implementation of soil conservation technologies • Access to loans • Access to benefits from consumer cooperatives • New ideas • Interaction with other members	• Better natural resource protection • Promotion of sustainable resource practices • Closer LGU-PO ties, including sharing of costs and creation of PO-LGU partnership in natural resource management • Access to additional resources and alternative livelihoods • Increased environmental awareness • Greater sense of community among members • High morale among members

In indigenous peoples' systems, there is a bias toward males and elders in leadership. The Ifugao, Bontoc, and Kalinga councils of elders are all-male; women rarely figure in leadership structures, although they are known to play a key role in household farming activities.

In project-based systems, the leadership of women in POs is very pronounced in a few sites (e.g., CPEU in Atimonan, Quezon; Sta. Cruz ISF Association, Inc., in Claveria, Misamis Oriental; and POs in Valencia, Negros Oriental). Women occasionally hold the top posts and perform key roles in the functioning of cooperatives, i.e., as presidents, treasurers, or secretaries (e.g., TKFPI, Labo, Camarines Norte; KMYLB, Valencia). In 1999, a woman-president of the PO in Napnapan, Compostela Valley, was elected overall president of the first federation of CBFM POs organized in the Philippines. However, these instances seem to be more of the exception than the rule. In some CBFM sites, women are excluded even from PO membership (DENR-NCRFW-AWCF-CIDA 2000). This, in effect, excludes them from assuming leadership roles. The exit conference report of the gender specialists in the DENR-NCRFW-AWCF-CIDA study notes that no move has been made to include women as members and to encourage them to participate.

Table 18. Constraints to community participation

Lai, Catacutan, and Mercado (1998)	Dugan (1989)	DENR-CBFMO (1999)	PWG (1999)
• POs' general lack of organizational and technical capacity to properly manage commercial activities related to CBFMAs • Community's inadequate funds for engaging in business, and lack of financial management experience • Incapacity of the DENR field offices to deliver services to all communities, especially in terms of cooperative and livelihood enterprises	• Inadequate support and funding for social preparation • Lack of secure long-term tenure • Deficiencies in project design • Poor coordination between the DENR and project implementers • Deviation from basic project design • Substandard performance in reforestation • Discord within the implementation team	• Very rigid documentation requirements (e.g., AAC determination, cutting area delineation, shipping) • Lack of trained DENR-CBFM staff • POs' lack of financial management capabilities • Propensity for shortcuts among the DENR staff • Mistrust, hindering the formation of DENR-LGU-PO partnerships • Requirement of 100-percent inventories • Lack of clear monitoring and evaluation indicators • Inappropriate KRAs for assessing the CBFM process • Termination of DENR support for communities at project end • TLA orientation of DENR staff • Mismatch between DENR capacities and fast-tracking strategy	• Site number or area quota system of accounting (i.e., target-oriented KRAs) • Continuous shifting of field-based staff • Cramping of some legitimate traditional practices by certain existing policies • Laxity in the enforcement of technically viable practices • Most implementation powers residing with regional authority • Inability of project staff to listen to communities • Inflexibility of programs vis-à-vis timing and targets • Inadequacy of protection orientation to deal with resource management and people's roles

In the late 1980s, the process documentation work on the Bulolacao UDP project site in Cebu uncovered the glaring gender inequality in the ISFP, particularly the disenfranchisement of women vis-à-vis access to tenure (Borlagdan and others 1988). This bias was largely a result of the policy definition of household heads as the qualified stewardship holders and the male stereotype of the household head. Closer analysis of the situation revealed that this had been greatly disadvantageous to women as this policy completely ignored their ownership of lands prior to marriage, or their contribution to land acquisition or development as part of a conjugal team. In DENR DAO 96-29, this provision was amended to require the inclusion and naming of both spouses in the CSC document (Article 4, Section 3). However, actual field compliance with this provision needs to be verified.

There is very little field data which indicate participation differential by age. Key informant interviews in Labo and Bulolacao, however, indicate local efforts to encourage the youth to engage in CBFM activities and to source out succeeding generations of PO leaders from among them.

Capacity Building

As mentioned in the preceding sections, project interventions serve as the primary strategy for building local capacity for self-governance that will make good the potential benefits from the resource allocation and use rights devolved to the communities. To recall, these include community organizing, training and workshop facilitation, technical and financial assistance, and linkages between POs and external resource groups or institutions.

In the context of empowerment, partnerships among the PO, LGUs, and the DENR may be similarly viewed as a strategy supportive of capacity building. Being the formal government structure closest to the community, the LGUs have both the stake and the resources with which to support community management of natural resources. Likewise, linkages with other groups–other NGOs, funding agencies, and academe–may be regarded as capacity building and, ergo, empowering.

LGU-Community Interface

In all the sites, the interface between community and local governance is most evident in the sharing of leadership between the PO and the barangay council. In many cases, PO leaders obtain recognition of their leadership skills and are subsequently elected to council or chair positions in the barangay. Where

relationships between the PO and the barangay are smooth (as in the case of Compostela Valley and Bulolacao), close coordination between PO leaders and the barangay council occurs. However, this relationship is double-edged. There are also known cases of PO leaders running for elections and losing; this subsequently creates political enemies who later bring problems to the PO (e.g., Marayag, Davao del Sur).

Common interfacing between LGUs and communities in natural resource governance revolves around the promulgation of ordinances on such matters as the burning and cutting of trees. In some areas, enacted municipal ordinances prohibit burning, while in other areas, there exist regulations that encourage care in the use of fire for land clearing (e.g., Sta. Fe, Nueva Vizcaya). Other ordinances prohibit hunting wildlife. Communities recognize birds, for instance, as contributing to the regeneration of forests through bird droppings that contain seeds of hard-to-propagate indigenous species. Many of these ordinances were formulated primarily on the basis of locally recognized environmental problems, sometimes with and at other times without the advocacy of POs or their leaders (Borlagdan and others 1999).

In sites where the NRMP has made special efforts to link LGUs and CBFM POs, the interface between the LGU and the community is quite substantial. Looking specifically into the LGU participation in Baggao-Amulung, Cagayan, and in Mat-i, Claveria, Misamis Oriental, Bernasor and Borlagdan (1999) report the following forms of local government involvement in CBFM:

1. Allocating budget and manpower for CBFM service delivery;
2. Creating multisectoral bodies as structures for providing various groups with the opportunity to participate in CBFM planning, resource accessing, and monitoring;
3. Rationalizing forest uses and enabling the forest land use planning process to integrate forest development into the overall community development plan of the local government;
4. Institutionalizing forest protection activities and structures; and
5. Extending financial support for the livelihood projects of CBFM communities.

Another area of LGU support for CBFM is resource accessing (e.g., for land use planning or income-generating activities of CBFM communities), primarily through fund allocation. Financial support for CBFM comes from the LGU's Human Ecological Security (HES) fund, which is a component of its Internal

Revenue Allotment (IRA). LGUs in locally assisted sites have been known to fund training activities as well (e.g., Landcare projects). In protected areas, provincial governments render financial and management support for the activities of the Protected Area Management Board (PAMB), particularly in consultations on the drafting of the comprehensive management plan.

This positive relationship is viewed as having sprung from, among other things, an appreciation of the potential benefits of resource management, either directly through the better production of agricultural lands or higher income from harvesting, or indirectly through a more reliable water supply for domestic, agricultural, or energy use (e.g., Mt. Isarog Watershed supports a privately owned small water impounding project.). The ability of watersheds to stabilize water supply is particularly appreciated in protected areas and watersheds that support local water districts. In Barobbob, Nueva Vizcaya, the provincial government entered into MOAs with individual members of the community for watershed management to secure the water supply of the local water district.

Another factor that may have influenced the development of such positive relationship is the presence of mediating structures or actors, such as foreign-assisted projects and consultants, that bring LGUs and CBFM communities together and facilitate better appreciation of each other. The LGU-community interfaces in Baggao-Amulung, Cagayan Valley, and in Claveria, Misamis Oriental, were brokered by NRMP consultants in the process of introducing a "forest land use planning" data-gathering and planning activity. An added advantage of the Forest Land Use Plan was realized, in that it provided a sound basis for the LGUs' comprehensive municipal land use planning required by the Department of Interior and Local Government (DILG). While the Barobbob experiment was the only one pioneered by the provincial government, the Governance and Local Democracy (GOLD) project of the USAID brokered subsequent efforts of the provincial government to obtain a management agreement from the DENR over the Lower Magat Watershed (Nierras 2000; Tiongson 2000).

Likewise a popular form of interface is the LGU's provision of infra-structure support to the community. In at least 10 CBFM sites, this has taken the form of funds or materials for the construction of trails and barangay halls, installation of water supply systems, maintenance of roads, and erection of day care and other facilities (see DENR-Office of the Regional Executive Director [2000]). In some cases, this is given in conjunction with the natural resource management activities of the CBFM site; in other cases, this is allocated as part of

the PO's CRMF. In Compostela Valley, the LGU built farm-to-market roads in support of the CBFM PO's forest utilization and management activities.

Given that the LGU-community interface is most pronounced in the sharing of leadership between or among PO and barangay council leaders, local elections represent the key entry point of this interface. Similarly, the extension of social and extension services, as well as infrastructure support, generates opportunities for the LGUs and communities to interact in the context of CBFM implementation. The most specific CBFM-oriented examples of this interaction are the forest land use planning activity initiated by the CBFM program. Some municipal and provincial LGUs enthusiastically embraced this activity, funded it, and established it as the basis of their own comprehensive development planning (e.g., municipal-level planning activities in Baggao-Amulung, Cagayan Valley; and in Claveria, Misamis Oriental; and provincial-level activities in Bukidnon and Sarangani).

Still other areas of interface are conflict resolution and official gatherings. However, the LGU's affirmation of the CBFM tenure, which is part of DENR DAO 96-29 and the DENR-DILG formal cooperation, does not appear to be a key area of interaction. This stems from the decisions of several DENR offices to forego consultations with LGU officers because they view the latter as merely slowing down the tenure-granting process.

Linkages with Other Groups

In addition to the LGUs and the DENR, there are groups that serve as key allies of communities in carrying out CBFM functions. Except in some self-initiated sites and a provincial-LGU-supported site, all community forestry sites are engaged with NGOs serving as assisting organizations to the POs. Most of these are local NGOs which have obtained contracts from the DENR to assist the POs in implementing ADB-funded contract reforestation or CSD projects. A few foreign NGOs and research institutions with local branches (e.g., Counterpart International, World Neighbors, and ICRAF) have also provided technical support for the development and promotion of soil and water conservation, as well as sustainable upland agricultural practices.

UNAC (1992) categorizes the NGOs involved in contract reforestation into social development agents, contract reforestation organizations, civic organizations, and so on. Among other important contributions, social development NGOs have facilitated community organizing and community development, conducted training, assisted the POs in mobilizing community participation in planning and

implementation, helped source funds, linked POs with other advocacy groups, negotiated with the DENR and other groups in behalf of the community, and conducted advocacy work. They serve as fiscalizer between the POs and the DENR, providing check and balance in the allocation process, as well as participatory and transparency mechanisms on the ground (Donoghue 1999).

After the NGOs, academic institutions constitute the next largest group linked with CBFM projects. The UPLB's action research projects called "ASPECTS" have sought to develop the capacity of local state agriculture and forestry colleges, such as the Misamis Oriental State College of Agricultural Technology (MOSCAT) and Dingle Agricultural and Technical College (DATEC), to provide agroforestry extension services to CBFM sites. Other academic institutions, such as De La Salle University, Ateneo de Manila University, and UPLB, likewise collaborated with the DENR in an action research program that aimed to create participatory methodologies and tools in support of the ISFP. There are also the Nueva Vizcaya State Institute of Technology (NVSIT), Isabela State University, and Benguet State University, which rendered direct or indirect support to CBFM communities.

Foreign donors and funding agencies compose a most important group in relation to CBFM. Their grants or loans to the Philippine government, NGOs, or LGUs often provided the impetus to the promotion of CBFM among upland communities, particularly during the early stages of the program. The major players included: (1) USAID, with its RRDP in the 1980s, NRMP in 1989-1999, and GOLD Project (1998-2000); (2) the World Bank, with its CVRP in the late 1970s and mid-1980s, which piloted contract reforestation as well as small-scale timber harvesting by communities; (3) the ADB, which funded, through loans, contract reforestation and CSD projects from the mid-1980s to the 1990s; (4) the Overseas Economic Cooperation Fund (OECF), now known as the Japan Bank for International Cooperation (JBIC), which supported reforestation and protection activities; (5) GTZ, which had implemented community forestry projects in Quirino Province for many years; (6) the EU, which funded interventions in protected areas and in Palawan; and (7) the Ford Foundation, which assisted in the early implementation of the ISFP, particularly from the early 1980s to the mid-1990s.

The way in which these agencies structured development assistance to the DENR, NGOs, and/or academic institutions influenced the developments in the promotion of CBFM in the country. In the early 1980s, the Ford Foundation was most influential in getting academic and research institutions involved in social forestry through the DENR-UDP. Moreover, it was responsible for the formation

of the Upland NGO Assistance Committee (UNAC), a consortium of civil society groups (i.e., NGO networks, POs, lawyers' groups) and academic institutions that assist upland local NGOs and POs in their development initiatives. The Foundation, as well as other funding agencies, further helped NGOs develop the capacities to promote social and community forestry, particularly through the extension of support for the acquisition of tenurial instruments, community organizing, and promotion of agroforestry and other upland technologies.

The ADB-supported community forestry projects spurred the emergence of numerous forestry-management-focused NGOs availing themselves of reforestation contracts from the government's environmental loans (Korten 1993). A later development of the ADB-supported CSD project transferred contracting arrangements from the NGOs to the POs themselves. However, although these projects adopted the rhetoric of people empowerment, target-oriented KRAs and central planning structures constrained genuine community participation in project planning and decision making (UNAC 1992).

In NRMP sites, initiatives were made to link communities to private business firms or individuals, in the effort to promote the creation of PO enterprises. These enterprises were envisioned to expand the POs' income sources, from which they could draw the needed capital for expensive forest management activities like forest protection or resource utilization (Mickelwait, Harker, and Guiang 1999). Examples of private business firms introduced to the POs were Nestle (for coffee production) and local banks which the NRMP sought to fund CBFM sites such as Compostela Valley. Explorations of this sort, however, failed to generate privately based institutional support. More successful cases were those of the POs' own supply and borrowing agreements with private individuals who advanced money or equipment for PO activities related to resource utilization.

Once the POs were organized, the involvement of other government agencies in specific ways was facilitated. The Department of Trade and Industry (DTI) and the Fiber Industry Development Authority (FIDA) provided training on specific crafts (e.g., abaca hemp production) upon the request of POs. Other agencies included the municipal agricultural office and the Departments of Agrarian Reform (in agrarian reform areas like Claveria, Misamis Oriental), Social Welfare and Development, and Health. The POs linked with these agencies for the delivery of specific services these bureaucracies have been mandated to render.

KEY ISSUES AND OPPORTUNITIES

This chapter started with specific questions about the decentralization and devolution process under CBFM which the authors attempted to shed light on using data from the 29 study sites as well as secondary sources from the field. This section seeks to address the bigger questions predicated upon the specific questions on community participation and empowerment in forest governance. In the process, the key issues and opportunities of devolved forest governance through CBFM are highlighted.

Limited Devolution under CBFM

The CBFM program in the Philippines is considered as one of the more progressive community-based forestry programs in the world primarily because of its land tenure and resource use rights features (Utting 2000). With more secure tenure, upland occupants can be assured of at least peaceful occupation and cultivation of their claimed landholdings. The livelihood opportunities and appropriate upland agricultural technologies enable them to increase their productivity enough to improve their life chances with better food, clothing, shelter, education for their children, funds for their medical needs, and so on. However, the structure of projects in locally assisted and national program sites suggests at least three additional requirements to translate tenure and rights into tangible benefits: (1) technology and technical capacity; (2) management and organizational capacity; and (3) funding.

Many Cost Centers, Few Options

The success of Mag-uugmad Foundation, World Neighbors, ICRAF, and MBRLC in promoting sustainable upland agriculture and soil and water conservation measures indicates the upland farmers' recognition of their need for better land management technologies to improve their productivity. However, the necessary extension services are inadequate, given the limited capacity of the forestry bureaucracy for extending technical assistance in forest management (with its services confined to reforestation and plantation establishment, forest protection, and TSI) and even more meager capacity for extending land management support services. Subsequently, other public and private institutions have to be sought to render technical support.

Management of communal areas requires organization and organizational capacities. Support for community organizing activities thus constitutes a large portion of the cost of CBFM promotion. For the farmer-participants, communal

work outside the farm, such as forest protection, entails high opportunity costs. This has been the rationale for the use of the employment mode in generating participation in many CBFM sites. Consequently, rehabilitation and protection of forestlands have been a very expensive proposition thus far for both the government and the communities.

These additional requirements represent high cost centers for CBFM projects and the participants. In order to sustain community forest management efforts, high payoffs are necessary, such as employment in reforestation or forest protection activities. Often, however, such payoffs are not immediately forthcoming and are coterminous with the project. The resource utilization activities which are supposed to generate considerable and sustainable benefits internally are being suppressed either through the curtailment of resource use rights or the lack of financial capital to actually commence resource use activities. The available options for translating tenure and rights into concrete benefits for the CBFM communities are actually very few.

Limited Participation and Division

CBFM has opened the doors to community participation in forest governance. However, the project approach to CBFM imposes some serious limitations on people's participation. The preset design of well-funded projects leaves very little room for communities to choose the trajectory of their own forest management. In addition, although communities are encouraged to formulate their own resource management vision, mission, and goals, the implementation of these often takes the back seat in favor of the DENR-prioritized reforestation and protection activities. This can be attributed to the greater and more immediate (financial) incentives for participating in the DENR's activities compared to their own. There is thus a tendency for more intense involvement in DENR activities.

Moreover, the creation of POs by projects tends to be divisive as membership in the organization serves as the entry point of participation in project activities and benefits. Nonmembers tend to get excluded in CBFM sites where POs are very protective of their newly acquired power over the land (e.g., Compostela Valley). In some cases, extreme polarization in the community creates conflicts between project participants and nonparticipants.

Minimal Community Control

In the context of projects, communities have very little control over their CBFM activities, given their extremely limited technical, organizational, financial, and political capacities. Moreover, the project structure constrains them to play by its rules. Self-initiated sites, in contrast, retain their independence although they may, once in a while, enter into negotiations with the DENR (e.g., the Ikalahan with their contract reforestation project, and the Ifugao, with their *muyong* resource permit). The stories of Labo-Capalonga in Camarines Norte, and Bulolacao, Cebu, however, indicate that, over time, communities can enter into collaborative relationships with the DENR while retaining their independent decision making. Having gained sufficient organizational capacities under the project mode, these sites have been able to manage themselves after project termination and retain their links with the DENR. When they successfully negotiated new contracts with the DENR, this was in the capacity of a capable PO rather than a PO still needing a lot of support.

Capacity Building and Time

Are communities actually being enabled? Are their capacities being built? Another way of framing such query is: Are communities learning enough to be able to undertake sustainable forest management without the level of assistance they have had so far?

The experiences of "old" CBFM sites, e.g., Labo-Capalonga (11 years), Bulolacao (16 years), Guba (less than 16 years), indicate that communities are capable of learning to organize, plan, and work toward their own development. However, the learning process can take quite some time and the usual three-year project duration often does not sufficiently provide this time. Moreover, the learning process entails commitment from community leaders to overseeing the process and reaching out to other members of the community. In all three cases, this also necessitates continuing relationships with outside entities, both government and nongovernment, to generate financial and technical support for the sustained involvement of core groups in development efforts.

Of the three sites, only Labo-Capalonga has been involved in forest management activities. But a common element among the three is the focus of community members and CBFM activities on individual land management. Another is the proximity of the sites to the market. Both Guba and Labo-Capalonga are readily accessible, so the transport of produce to the markets of Cebu City and Daet, respectively, is relatively easy. The construction of a market

site in the barangay proper and the entry of vegetable buyers to the highlands of Nug-as have greatly boosted the agroforestry efforts of vegetable farmers that constitute the PO of Bulolacao.

Labo-Capalonga had made attempts at forest-based enterprise activities but failed. Nonetheless, it succeeded in establishing pocket plantations of rattan and other cash crops which are already beginning to reap benefits to individual participants. In addition, it has developed organizational and technical skills for undertaking contract reforestation with public and private entities, and has generated income from conducting reforestation activities and supplying seedlings.

LGU Support for CBFM

There are enough cases in which LGUs lend various types of support to all three types of CBFM sites. In some instances, go-betweens are necessary to elicit LGU support. In others, LGU support to communities comes as a natural feature of its relationship with its constituents.

However, LGU relationships with the CBFM sites tend to be volatile, depending on the kind of relationships that exist among the LGU, PO, or DENR officials. Differences in political parties can create distance between LGU and PO officials. Perceptions of ulterior political motives have the same effect on the relations between LGU and DENR officials. Some DENR officials use charges of ulterior political motives as a key excuse for bypassing local government executives in the affirmation of CBFM documents. Hence, there is a big probability, which deserves verification, that there is some form of violation of DENR DAO 96-29 by these officials.

LGUs are expected to inherit CBFM projects from the DENR. They are deemed in a good position to support the POs primarily through agricultural service delivery and financing. However, they also need the assistance of the DENR in forestry extension, as well as of other groups in PO capability building. In addition, they have to build the capacity for managing assistance to CBFM sites. Finally, as has been discussed earlier, forest management involves basically a set of high cost centers and, at the moment, unclear payoffs. Until these fiscal matters are built into their enabling environment, the devolution of CBFM to the LGUs is a devolution merely of responsibilities and still very little of control and benefits.

6

LESSONS, CONCLUSIONS, AND RECOMMENDATIONS

This study set out to characterize the CBFM experience in the Philippines, particularly from the angle of sustainability, community, and forest governance. Through the literature review and limited field validation, it aimed to provide a preliminary assessment of the strengths and weaknesses of CBFM which the Ford Foundation could use for planning and programming purposes. A team of consultants and their associates from the IPC-Ateneo de Manila University and the DSFFG-UPLB undertook the research.

The research attempted to differentiate the experiences between spontaneous CBFM systems (i.e., indigenous systems or the so-called "self-initiated sites") and induced systems (i.e., locally assisted and national program sites). The preponderance of induced systems jibes with the historical development of community management as a construct and program that grew largely out of a confluence of events: (1) recognition of the existence of degradation, its social and ecological causes and effects; (2) international trend toward decentralization to correct historical political-economic distortions brought about by colonial experiences; and (3) support of funding agencies for government to deal with the causes and consequences of the twin problems of forest degradation and poverty.

LESSONS AND IMPLICATIONS

Historical data, the literature review, and primary data from the validation trips reveal important lessons, which have been discussed in the historical overview and the chapters on sustainability, community, and forest governance in this report. These lessons and their implications are summarized as follows:

1. *Sustainability of livelihoods is the core issue of natural resource management*. In the recent history of the Philippines, political-economic conditions have threatened the livelihood systems of both indigenous people and migrant groups in the uplands and lowlands, respectively. The "tragedy of the

commons" in open access situations essentially constitutes a struggle to capture the means to one's livelihood before others do.

In this context, the innate incentive for sustaining natural resources from the people's perspective is very concrete. People will accommodate high objectives of biodiversity and ecological balance when these can demonstrate direct and tangible benefits to their livelihood.

Hence, the saying "start where the people are" of the NGO community must be taken to mean "start with the people's existing livelihood system." This means that development planning which starts from the ground up, i.e., from existing livelihood strategies, rather than from the vantage point of available technology packages, will be more meaningful to the community in the long run. This explains the appeal of the farm planning process promoted by the ISFP and the community mapping and natural resource management planning processes in CBFM sites, that is, to allow the farmer and PO the opportunity to take a hard look at their livelihood system and resource base, and systematically plan and implement ways of manipulating these for better economic and sustainable returns.

The implication of this is that CBFM facilitators, whether from government, LGUs, or NGOs, need to be made aware of the local livelihood system and to resist the temptation of proposing alternative activities without first understanding (1) the livelihood system and its resource base, (2) the "problem" in the system that creates low productivity and/or unsustainable use, (3) the "opportunities" in the system which should be construed to include not just the indigenous technologies but also the social organization supporting it, and (4) the options available to the community. A strengths-weaknesses-opportunities-threats (SWOT) analysis and a problem-solving approach should serve as the basis for recommending technical interventions rather than a mere technology transfer/alternative livelihood approach.

2. *Indigenous resource management systems are a valuable cultural resource*. These are created out of people's day-to-day interactions with a resource or a set of resources, particularly in the context of their efforts to sustain themselves through production processes which, altogether, constitute their livelihood strategy. Such systems include not only the local knowledge and

practices, technology, and biophysical characteristics of the community but also the norms, social organizations, and institutions that sustain the systems.

In the old days of low population density, indigenous forest resource management systems of indigenous peoples included practices that did not unduly threaten but even enhanced the sustainability of the resource. However, as the data on self-initiated sites show, they must struggle and cope with market, political, and population pressures. In some cases, such as the *muyong* of the Ifugao, the indigenous peoples have been able to maintain their system by successfully negotiating for some form of tenure from the DENR (e.g., resource permit) and gearing their tree-planting activities toward the market (e.g., supplying materials to the lucrative tourist-oriented woodcarving industry). In contrast, other indigenous forestry systems in the Cordilleras simply succumb to the market and get converted into high-value vegetable croplands.

Again, the loss of indigenous systems is primarily indicative of the issue of sustainable livelihoods. In addition to the previous discussion on this matter, it behooves academic and training institutions responsible for the education and preparation of extension agents to instill a research and problem-solving orientation in their trainees rather than merely emphasizing the rote learning of principles, technologies, and techniques.

3. *CBFM "imagines communities" which are actually "incipient" communities but which hold the promise of maturing into "organic" communities that can more effectively undertake sustained collective action*. As sociologists have pointed out, many of the so-called lowland "communities" are loosely organized and often lack the commonality of purpose, history, and identity that provide the strong psychological and cultural bonds needed for effective collective action. Largely based on membership in POs, the "community" in CBFM is primarily locality-based. Most of the upland "communities" are largely aggrupations of a variety of people from different places and cultures who migrated to the uplands in search of land and/or jobs. As such, they are at best "imagined" communities, to borrow the phrase of Anderson (2000).

Organic communities of indigenous peoples are different in that they share cultural identities and traits. However, indigenous peoples may also be internally stratified and differentiated (e.g., Bugkalot of Quirino and Ikalahan of Nueva

Vizcaya), which makes the assumption of homogeneity on the basis of ethnic affiliation alone untenable.

Research data show that CBFM projects and activities provide incentives which draw people to come and work together. This suggests that genuine community can result from sustained CBFM efforts, and that the "imagined" communities of CBFM today are also "incipient communities" which, over time and with sustained support, can mature into "organic communities" tomorrow. To develop institutions for collective action among un-organized heterogeneous groups, therefore, CBFM interventions have to deliberately address the need for community building as well as community organizing and community development.

4. *CBFM provides the arena for empowerment not just through rights but, just as importantly, through social negotiations*. Focusing primarily on a multi-stakeholder multi-interest resource, CBFM at the moment distributes rights and responsibilities among three key stakeholder groups: POs, LGUs, and the DENR. Issues of power and control over natural resource use among these three groups are waged in the arena of tenure, allocation of rights and responsibilities, and forestry rules and regulations, including taxation. Ideally, policies should facilitate the equitable allocation of rights and responsibilities that would result in sustainable development. But given the individual and often conflicting interests of these stakeholder groups, the allocation of rights and responsibilities often has to be negotiated. CBFM provides the arena for such social negotiations through PRA, community mapping, resource management planning, and work planning.

At present, the DENR wields the most power among the three stakeholder groups. To assert their rights successfully, both POs and LGUs need to negotiate from a position of strength. The POs, therefore, require assistance in acquiring the knowledge, skills, and confidence necessary in negotiating successfully. The available data imply that successful POs, i.e., those which have shown organizational, management, and financial capability, are able to command respect from the DENR and LGUs.

5. *Devolution of powers is, at best, incomplete*. The social negotiation processes under CBFM are still biased in favor of the government, which wields both political and technical powers that go with forest management. The regulatory and taxation powers still held by the DENR actually steal the thunder

from the rights and tenure that government provides. Worse, they render social negotiations useless. This is best highlighted by the DENR Secretary's arbitrary suspension of resource use rights in 1998, which cut the lifeline of sustainable resource management activities in many CBFM sites. This illustrates the awesome power of the Secretary to undo policy reforms, millions of dollars in investments, and tremendous efforts on the part of farmers, DENR and LGU frontliners, and NGO organizers, with the stroke of a pen.

In the hands of irresponsible and incompetent politicians, this awesome power serves as a very real threat to CBFM, upland communities, the forestlands, and the country. There is a need for further policy reform to curb such powers and to choose only officials that are more serious and competent in providing the leadership needed to promote sustainable forest management. This requires the enactment of a sympathetic Sustainable Forest Management Act. On the part of civil society, this entails continued vigilance on the ground to curb abuses of power by those in the government bureaucracy.

6. *Projects of induced development efforts provide the needed learning opportunities to everyone involved*. The eagerness and enthusiasm with which various entities involved in CBFM–from farmers to DENR and LGU employees–take advantage of learning opportunities through training under CBFM highlight the great value that they consciously or unconsciously place on their own human development. With the dearth of educational facilities in the uplands beyond the elementary level and the great distance and cost of higher education, the educational level of many upland occupants generally remains low. This low level of education is just as responsible for poverty and degradation as high population growth and corruption in the forestry sector.

In the absence of educational opportunities, training activities serve as a valuable alternative to adult education in the uplands. Field trips or cross-farm visits to other sites constitute the added dimension of broadening the participants' worldview. An even more important outcome of training activities than the rote learning of ecological principles and technologies is the development of self-confidence in one's ability to understand, analyze, plan, and implement, and the concomitant high self-esteem that serves as the foundation for genuine empowerment.

In addition to formal training, project planning and implementation itself functions as a learning-by-doing training strategy in which new knowledge, attitudes, and skills are acquired pertaining to "hard" forest management technologies and, equally important, to community building, organizational management, and community development (or the "soft" technologies). This applies not only to farmer-members of POs but also to frontliners of LGUs and government bureaucracies.

Given the great significance of education as the basis for empowerment and national development, facilitators and trainers of CBFM intervention efforts need to (1) understand what the learning process entails; (2) develop the skills necessary in guiding and facilitating learning; and (3) learn how to plan curricula that balance the "hard" and "soft" technologies involved in sustainable forest management and the training participants' own learning needs. To take advantage of projects as a learning vehicle, governments at the national and local levels need to provide these facilitators and trainers with the orientation, skills, and support they need to be effective.

7. *The costs of learning and of CBFM itself are too high and need to be reduced*. Given this project-based structure of learning in the uplands, this educational approach involves costs. In her treatise on environmental loans, Korten (1993) clearly shows how high the costs of learning have been, particularly in the context of reforestation projects. She further shows that the high per hectare cost of project loans means greater pressure on the government to exploit natural resources to generate revenues with which to repay the loan. In addition, target-oriented KRAs of loans tend to sabotage participatory and empowerment processes.

The costs are even higher when (badly implemented) projects end in failure. They increase the national foreign debt without increasing the productive capacity of the people and the natural resources. Further, while using the rhetoric of participatory development which they can only honor in the breach so far because of structural defects (e.g., target-oriented KRAs, short duration), loan-based projects tend to strengthen rather than loosen the bureaucracy's grip on the poor and those which aim to support them.

It was the objective of obtaining alternative sources of funding that the CBFM program turned to providing communities with resource use rights,

specifically so that local resources could be used to generate funds for local CBFM efforts. This is the same rationale for the promotion of local enterprises. Local fund sourcing can be done with the help of LGUs. This will enable communities to negotiate the terms of the fund availment and closely monitor implementation as well as payback.

8. *The costs of CBFM to the community are so far higher than the benefits it has delivered*. With its current forest management-oriented activity package, CBFM itself is a costly undertaking for the communities, as they have to contribute hard labor for protection, reforestation, and organizational management. As long as they receive compensation, communities are willing to expend the necessary labor. However, bureaucratic delays in payments often cause the communities to subsidize forest management activities which, in the first place, are the responsibility of the DENR. This creates a situation where the devolution of forest management results in the devolution not just of responsibilities but also of costs, with very little benefit to the communities, except for a piece of paper called tenure. In this present structure, CBFM can be rightfully viewed as another instrument of state oppression of the upland poor.

The arbitrary suspension of resource use rights by the DENR Secretary reflects a lack of commitment to CBFM and its aspirations by the nation's leaders who are members of the elite. It also suggests an unwillingness to recognize the injustice underlying the great divide between the rich and the poor in the country and the twin problems of poverty and forest degradation in the uplands.

9. *Local government support for CBFM needs to be institutionalized and strengthened*. Given these grave obstacles, CBFM badly needs the support of LGUs for various goods and services, facilitators, and trainers to help speed up the learning process, disseminate information for livelihood- and resource-management-focused problem solving, establish linkages with resource institutions, and generate funding for specific activities, among others.

Long held back by its subservience to the national government, LGUs by virtue of the LGC now have the chance to define themselves and their own development goals, and to raise the necessary funds to support these. By including LGUs in the resource allocation process, CBFM extends their influence to the forestlands, which in the past were exclusively DENR territory. CBFM thus promises great benefits to the LGUs also by including forestlands and resources

among the assets they can tap for their own development goals. In turn, and as the data have shown, LGU participation in CBFM promises great benefits to the upland communities.

However, LGUs are likewise beset by many constraints, the least of which are the lack of respect from the DENR and the lack of capability to deliver support services to upland communities (e.g., organizing, extension). Like the POs, therefore, they need capability-building support.

CONCLUSIONS

In the Philippines, the historical development of CBFM is closely associated with the national struggle against corruption and ineffective government, and with efforts to devolve power and control over natural resources from the state to the communities. This research provides the much-needed occasion for introspection to get a sense of where we are in CBFM at present, and where we want to go from here.

CBFM has come a long way in making natural resource assets available to upland occupants who depend on the forest. It has improved the life chances of both the communities involved and the forests they depend on. Opening the door to community participation in forest governance, it provides opportunities for communities to learn to organize and manage themselves vis-à-vis their resource management practices.

From an economic perspective, given the participation of many sites in contract reforestation and pump-priming activities, the fact remains that much-needed capital infusion into the local communities has taken place albeit perhaps in varying proportions to the actual funds intended for the purpose. This has certainly led to increases in income among upland households, although the distribution of income and the rate of increases need to be ascertained. What the participants do with the income is also a subject of future research. Such information is available in at least two sites. Particularly in Labo-Capalonga and Bulolacao, the participants use the reforestation income for agroforestry farm development. The development of Bulolacao into a key vegetable producer in Cebu is as much a result of this reinvestment as it is an impact of the construction of a market in the barangay proper.

In terms of ecology, the regreening of Bulolacao is a clear outcome of CBFM. Until the mid-1980s, forest fires occurred frequently in reforestation areas of the Southern Cebu Reforestation Development Project (Borlagdan 1987). The protection efforts of the PO formed under the ISFP have allowed the reforestation areas to develop, creating larger pockets of forested areas which used to be filled with grass only.

Indeed, increased forest cover is reported as a key result of CBFM activities owing to the protection activities of POs. The mode of protection normally involves the creation of forest patrols, composed of deputized forest guards, and fire brigades. In large national programs, forest patrols receive wages for their time. However, when funding for the wages runs out, patrol work also stops. Subsequent protection work has each farmer looking out for his own farm and the farm of his immediate neighbors, and reporting any suspicious activities to the barangay. In larger areas where resource use rights have been suspended, this is not enough to hold illegal loggers at bay.

By and large, however, field reports (Mickelwait, Harker, and Guiang 1999) show increasing evidence that tenured areas are better-off in terms of forest cover, forest fire prevention, income generated from reforestation contracts, and resource use rights.

From a political perspective, policy reforms and government interventions have given the upland communities space in which to influence forest governance. For these reforms and interventions to bear fruit, however, there is a need for serious and sustained efforts to follow them through to their logical conclusion. Political stability is important for everyone to concentrate on livelihood-focused problem solving and community building in the natural resource management context. Committed leaders who can inspire groups should set aside their differences and work together toward one direction. Skillful men and women who can seize this opportunity are needed to help turn the economy around and improve the well-being of the people and the environment.

Relative to the West and to its Asian neighbors, the Philippines as a country and as a nation is still very young. It is only learning to use its resources wisely and govern itself effectively. Mistakes take their toll on both the people and the environment. But the green history of the world (Ponting 1991) indicates that things get worse before they get better–many developed nations lost their forests

before they realized their importance and worked to restore these. Costly mistakes have been made in the Philippines, and much has been learned about their causes and consequences. Mistakes are valuable instruments of learning that must be embraced and built upon.

But ultimately, the sustainability of natural resources under CBFM in the Philippines hinges on stable and predictable policies in support of communities, appropriate support systems for communities and service providers, linkages with processors and markets, decentralized and deregulated implementation schemes, and appropriate partnerships with LGUs, NGOs, and the private sector. Although the capacities of community organizations are the weakest link in the adoption and implementation of the CBFM strategy, the long overdue issue of equity in the democratized access to forests and forestlands is finally being addressed. Despite the inadequacy of operational policy support, CBFM communities have proven themselves able to rehabilitate degraded forestlands, protect the remaining natural forests, conserve biodiversity, practice sustainable upland agriculture, and organize for collective action–in exchange for these access rights.

Existing policy imperfections will need further refinement in order to give communities and other key stakeholders, like the LGUs, the right incentives for sustaining their engagement in sustainable CBFM. To date, the Philippines is probably one of the more advanced countries in the adoption of CBFM policy. In reality, however, the benefits of CBFM policy have yet to be translated into concrete benefits for the community because of political and bureaucratic impediments.

Almost a century of government-abetted private-sector-plunder of the forests and forest resources cannot easily be turned around by policy pronouncements and enactment. The wheels of change in government turn very slowly indeed. The implementation of the IPRA has yet to be fully funded. CBFM under EO 263 has yet to be translated into economic benefits at the grassroots level and into bureaucratic commitment to truly "empower" communities as they protect and manage their forests and forestlands. With this foot-dragging by both national leaders and the bureaucracy, CBFM and all its rosy promises so far may still turn out to be just a dream or a passing development fad. Should the outcomes of this fad be neutral, i.e., no harm done, then it may just end up as an expensive learning experience for the country which still may bear fruit in the distant future. Should these be negative, CBFM may just

strengthen the stranglehold of government and the elite over the country's de facto forest managers.

RECOMMENDATIONS

In light of the above lessons, some key recommendations for improving CBFM policies and implementation are provided, as follows:

1. *Address the issues of equity not only in the awarding of tenure and agreements but even in the review and granting of resource use rights to communities*. Existing operational policies urgently need refinement, simplification, deregulation, and standardization. Higher transaction costs will mean lesser benefits to the communities.

2. *DENR and LGUs to develop and implement an integrated rural assistance program so that communities can be more effective and efficient in protecting and managing their forests and forestlands*. In the medium and long term, what will matter is the socioeconomic improvement of communities and their members. Sustainable forest management practices will be sustained if and only if the communities actually benefit from these resources.

3. *DENR and the LGUs to develop and implement sustained support systems for CBFM communities*. These should focus on capacity building, improvement of enabling policies, implementation of incentive systems, and assistance in organizing and carrying out advocacy and collective action.

4. *Restructure the forestry sector as a service institution to communities*. This way, forestry technicians in the community and provincial environment and natural resource offices and the DENR regional offices can effectively respond to the needs of CBFM as the main vehicle of sustainable forest management in the Philippines. This will require huge investments in carrying out organizational development; reengineering and reconfiguring training institutions; realigning DENR priorities; and forging agreements with the private sector, LGUs, and the financial sector so that the CBFM areas can be developed, protected, managed, and productive. This has long been overdue–CBFM policies are not complemented by and made consistent with institutional priorities.

5. *The DENR to review, analyze, and decide on what and how much powers to devolve and decentralize*. As the organization mandated to protect and manage natural resources, the DENR wields the power to (1) allocate forestlands, (2) title alienated public lands, (3) award resource use rights, and (4) issue ECCs. As indicated by previous experience, a highly centralized and overly regulated forestry sector can bring about negative impacts on the environments, such as reduced forest cover, heavy siltation and erosion, loss of biodiversity, and importation of wood.

6. *Review and adopt recently completed performance monitoring systems for CBFM forests and forestlands as the basis for independent assessment and international certification of sustainable forestry management*. This effort should be closely linked to the preparation, approval, and implementation of LGU-driven forestland use plans and monitoring systems.

7. *Donors, NGOs, and other service providers, both public and private, to review their present strategies and realign support systems*. In particular, these strategies and systems pertain to advocacy for more effective CBFM operational policies, support for urgent capacity-building requirements, market linkages, and organizing of collective action to counteract illegal cutting, encroachments, corruptions, and undervaluation practices.

ANNEX

Description of Different Indigenous Community Forestry Sites

The Muyong of the Ifugao

The *muyong* system of the Ifugao is a landownership and forest management system unique to the Tuali tribe of Ifugao Province in the Cordillera Region, island of Luzon. The term "muyong" is the general Ifugao word for "forest." Most *muyong* are located in the upper portion of the stratified agricultural lot and are generally thought of as an extension of the *payoh* (ricefield). They help conserve the water for the *payoh* and serve as source of firewood for cooking the harvest from the field (IRDC 1996), and of raw materials for house construction and woodcarving. At present, cash crops and fruit-bearing trees planted in the *muyong* have also become an additional source of cash for the owner (See 2000).

The ownership of the *muyong* is tied to the agricultural lot that it supports. The *muyong* is passed on as part of the inheritance package that includes the *payoh* or several *payoh* (IRDC 1996). Ownership is inherited by the first-born. In cases where the family owns more than one *muyong*, the rest are distributed to the other children (Pogeyed 2000). The size of a *muyong* varies, from a few hundred square meters to around 5 ha.

The Ifugao customary laws confine the cultivation of the *muyong* to clan members as it is considered as clan- or family-owned (See 2000). Owners are expected to maintain their *muyong*. To them, it is a disgrace to pass the *muyong* to their heirs with few trees. Maintenance practices include weeding, tree thinning or release cutting, enrichment planting, and stem bending. The Ifugao also employ sprouting/pruning, rejuvenation, compost piling, root cutting, and collapsing. Moreover, trees are girded and thinned to regulate the intensity of light reaching the undergrowth (Serrano 1990). Huge trees in a *muyong*, especially those near creeks and large rocks, are not cut because these are believed to be the homes of the Ifugao earth spirits (IRDC 1996). To date, the remaining forests in the Ifugao and Banaue areas are managed mostly under the *muyong* system.

The Tayan of the Bontoc

The *tayan* system involves the management of a tract of land, normally in the uplands, to be developed into a diverse mixture of forestlands, cultivated areas, and residential or private lands. The *tayan* is managed to fulfill the food and shelter requirements of the clan owner, as well as to maintain the environmental integrity of the area. It normally covers 0.5 ha to 10.0 ha.

In Bontoc, the capital of Mountain Province, the term "tayan" refers to a communal forestland which a clan exclusively delineates and maintains to address its members' need for wood. The size of the clan ranges from 4 to as many as 20 families made up of 100 members. Depending on the social status of the ancestors and the size of the family, the extent of the *tayan* owned varies. All members of the clan have equal access to the resources therein. However, the clan elders, who act as leaders and decision makers, are consulted on any resource utilization activity. They allow the use of a tree, depending on one's necessity. Normally, if the need is for fuel, only branches and dead trees can be harvested. The good trees are reserved for house construction and other important uses.

To date, the *tayan* management system is under serious threat. More and more of the *tayan* are no longer maintained and the conservation-oriented traditional utilization practice is not strictly followed. This can be attributed to the breakdown of the indigenous institutional mechanism that supports the system and the absence of economic incentives, particularly the resource use permit, which allows clan owners to utilize *tayan* resources for commercial purposes.

The Saguday of the Sagada

The *saguday* system practiced in the municipality of Sagada, Mountain Province, is almost similar to the *tayan* of the Bontoc. It involves the management of a piece of forestland by a clan with a size similar to the clan in the *tayan*. However, owing to its relative isolation from lowland culture, the system still adheres to cultural traditions associated with its management.

Five objectives of living govern the management of the *saguday*, namely, health, prosperity (*gabay*), abundance (*sika*), nature, and peace. Unlike the *tayan* of the Bontoc, the *saguday* is maintained not only for the wood requirement of the owner but also for food, medicine, clean water, and cultural values.

Moreover, decision making concerning the *saguday* is not the sole responsibility of the council of elders. The elders designate caretakers to manage the *saguday* and implement the indigenous rules concerning its use. In exchange, the caretakers are free to use the resources and stay in the area. However, the elders can replace them if they are deemed not doing their jobs.

The elders and caretakers allow the utilization of trees based on necessity. If the need is for fuel, only the branches and dead trees can be harvested. If the wood will be used for house construction, the caretaker chooses the tree to be cut, usually the mature trees and the ones that bear fewer cones. The number of trees cut also depends on the caretaker's assessment of the wood requirement of the requesting party.

Similar to that in the *tayan*, the clan that owns a *saguday* ranges from 1 to 20 families. Big clans may include members from several generations. Only the clan members have direct access to the *saguday*, and they share equal rights to the resources found therein. Thus, regardless of clan size, they should know one another as well as the *saguday* boundary to ensure its protection and management.

Indigenous Practices of the Ikalahan

In 1974, the Ikalahan/Kalanguya tribe, represented by the Kalahan Educational Foundation (KEF), secured legal rights and tenure over the management of a sizable portion of forestland (Magno 1997). In a Communal Forest Stewardship Agreement (CFSA) negotiated with the Philippine government, the KEF was given jurisdiction and authority over the occupancy, use, management, and protection of close to 15,000 ha of forestland (Rice 1996) in Sta. Fe, Nueva Vizcaya. About 88 percent of the area consists of mossy forests, dipterocarp old-growth forests, pine forests, scattered dipterocarp forests, and grasslands with scattered individual dipterocarp and pine trees (Borlagdan and others 2000).

Traditionally, the Ikalahan tribe has a council of elders (*lupon*) that governs its communal life. It presides over community meetings and, through the conference system (*tungtungan*), acts as mediator of all types of conflicts, from boundary disputes to interpersonal disagreements. Alongside the *lupon*, the KEF manages the affairs of the community on a more formal basis. It is headed by a 13-member board of trustees representing the six barangays and headed by a chairperson elected among the board members (Borlagdan and others 2000).

Indigenous knowledge systems have enabled the Ikalahan to devise joint strategies for food production and forest protection on a sustainable and long-term basis. They traditionally practice a type of swidden agriculture characterized by long rotation and fallow cycles. Under this system, the *uma* (swidden field) is constructed by clearing a small portion of secondary forest area called "kineba." Primary forest areas are seldom disturbed for tilling purposes. The period of cultivation in a particular swidden plot does not exceed four years. When the first signs of soil fertility loss manifest themselves in the diminishing size of the root crop, agricultural activity shifts to a new site (Magno 1997). To enhance soil fertility, the Ikalahan also apply a traditional method of making natural compost called "gen-gen," which involves burying leaves and stalks in a pile following the contours of the *uma*.

Cultural beliefs have likewise played a significant role in resource conservation. Indigenous communities believe that ancestral spirits reside in the forests, springs, rivers,

and caves. Thus, they avoid exploiting certain trees and natural resources in their sacred abode as this is thought to cause sickness, accidents, and disasters (Magno 1997).

The Gaop of the Higaonon

The Higaonon of Minalwang, Claveria, Misamis Oriental, have their own set of indigenous practices geared toward the protection of the environment. They have managed to preserve as old-growth forest around 70 percent of their 20,500-ha ancestral land through the *gaop* system (Higaonon Tribe of Minalwang 2000). The *gaop* system of the Higaonon is a traditional system of "landownership" which helps promote sustainable forest management. It is a system of family landholdings which is associated with *kaingin* (slash-and-burn) or communal farming but also includes arrangements regarding the allocation of other forest products in the area. Also understood as landholding or claim among the Higaonon in Barangay Minalwang, the *gaop* is usually acquired through inheritance. In cases where a family does not have landholdings, the *datu*, together with the elders, chooses a place for the family where they can be given their own *gaop*. The head of the family will have to throw a stone on all four sides to determine the boundary of their land. The principle behind this is that one's ability to cultivate and take care of the land is measured by his strength. The stronger the person, the farther the stone thrown, the greater his ability to take care of the land, thus, the larger his landholding. In most cases, the boundaries of the *gaop* are adjusted to coincide with natural boundaries such as rivers, creeks, and big trees.

Landholding in the barangay ranges from 0.5 ha to 10.0 ha. Of the average of 5.0 ha, only a hectare, or one-fifth, can be devoted to crop production; the rest of the area must remain forested. The forested area is the major source of fuel, food, building materials, and medicine.

The *gaop* system further governs the gathering of non-timber forest products, such as rattan, and the hunting and trapping of wildlife for food and game (*panagat*). This involves the imposition of forest charges and regulations by *gaop* owners on rattan gatherers, wood/timber gatherers, and wildlife hunters within their *gaop* boundaries.

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