

**Report**

**Whose Woods These Are:  
Community-Based Forest Management  
in Africa**

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## Report

# Whose Woods These Are: Community-Based Forest Management in Africa

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## Acronyms and Abbreviations

AFR/SD	Office of Sustainable Development of the Africa Bureau of USAID
AID, USAID	US Agency for International Development
AMADE	Administrative Design for Management Project (Zambia)
ARD	Associates in Rural Development
BATNA	Best alternative to a negotiated agreement
CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CDF	Caisse Française de Développement
CFA	West African currency in many countries that were French colonies
CBFM	Community-based forest management
CBNRM	Community-based natural resource management
CBO	Community-based organization
CLUSA	Cooperative League of the USA
D&G	Democracy and governance
DFRN	Direction of Forests and Natural Resources (Benin)
FAO	Food and Agricultural Organization
FLUP	Forest and Land Use Planning Project (Niger)
FMP	Forest Management Plan
FMU	Forest Management Unit
FSC	Forestry Stewardship Council
GIS	Geographic Information System
GOB	Government of Benin
GTV	<i>Gestion de Terroirs Villageois</i> (Village Land Use Management)

GTZ	Gesellschaft für Technische Zusammenarbeit (German aid agency)
IFAD	International Food and Agriculture Organization
IIED	International Institute for Environment and Development
IUCN	World Conservation Union
JFM	Joint Forest Management
NGO	Nongovernmental organization
NRDC	Natural Defense Resource Council
NRM	Natural Resource Management
NRMP	Natural Resource Management Project (Benin)
NRMS	Natural Resource Management Support project
NTFP	Non-timber forest product
PRA	Participatory Rural Appraisal
PVO	Private Voluntary Organization
RRA	Rapid Rural Appraisal
UNDP	United Nations Development Programme
USDA	US Department of Agriculture
WRI	World Resources Institute
WWF	World Wide Fund for Nature

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## Executive Summary

In 1998 USAID sponsored an extensive study of innovations in rural production entitled “Opportunities for Sustained Development: Successful Natural Resource Management in the Sahel” (Shaikh et. Al., 1988). After visiting 70 promising practices selected for review in various Sahelian countries, the authors singled out three initiatives as “striking successes.” One of these was a USAID-funded pioneering effort in community-based forest management, CBFM.

This paper aims to call attention to the untapped potential for community-based forest management programs, CBFM, in sub-Saharan Africa. From its beginnings in Africa two decades ago, CBFM has progressed through a number of pilot projects to become a well-integrated approach that can effectively maintain natural vegetative cover and slow deforestation, while generating a sustainable flow of goods, new livelihood opportunities, and diversified sources of income for rural communities. Although the possibilities of this promising methodology are widely recognized by experts in the field, CBFM remains underutilized across a continent that may see the end of its natural forests by mid-century.

The most successful CBFM programs develop management capacity of forest-based enterprises, strengthen community-based organizations, improve local governance and relations between government and local communities, and increase access to forest resources at the local level. In the face of growing pressures on natural resources, and heightened potential for conflicts over their use, well-conceived CBFM programs also help to reduce conflict and inequitable exploitation of forest resources.

The basic logic of CBFM is to restore community participation and control in forest management as a means to promote more sustainable and equitable systems of forestland use. These systems provide greater incentives for community involvement in protection, rehabilitation, regeneration, and rational exploitation of forests, with value-added processing and marketing of forest products.

Beginning with a review of the historical background for CBFM programs, this paper summarizes approaches that have evolved and proved successful. It provides an overview of the impacts of CBFM experiences in Africa and the conditions required to foster and sustain such efforts. The ‘what’, ‘why’, ‘where’ and ‘how’ of CBFM describe in more detail the CBFM methodologies and experiences gained in various African countries.

**What:** CBFM is management of forestlands under a detailed plan developed and agreed to by all concerned stakeholders. The approach is community-based in that the communities involved with a forest have the legal rights, the local institutions, and the economic incentives to take substantial responsibility for sustained use of that forest. Under the forest management plan, communities become the primary implementers, assisted and monitored by the forest service.

**Why:** Local forest communities are best placed to control deforestation and oversee management of forests in their territories. CBFM supports other development and conservation sectors, such as health (nutrition and medicinal products), agriculture (rational land use planning), livestock

(secure grazing rights), rural employment and women's advancement (forest-based enterprises), democracy (decentralization and local governance), and biodiversity conservation (ecosystem management).

**Where:** In the absence of comprehensive land use planning in most African countries, areas for CBFM can be prioritized by their likelihood of success using such criteria as quality of resources, access to markets and interest of forest communities. Forests that are gazetted as national forests may provide the best ready-made opportunities.

**How:** Drawing on CBFM experiences in Niger, Benin, Ethiopia, Zambia and elsewhere, a step-by-step process of strengthening local institutions and developing a forest management plan is spelled out. Discussions of enabling environment factors, participatory techniques and implementation issues round out the how-to presentation.

A summary of results and a series of lessons learned from this first generation of pilot CBFM efforts in Africa follows. These lessons should prove useful governments, forest communities, and external assistance agencies and other stakeholders as they extend and improve forest conservation and management programs. The paper concludes with a discussion of the challenges and opportunities inherent in CBFM programs, and the potential impact of the expansion of these programs. Annexes look deeper into enabling factors, NGOs' roles, and experiences in CBFM in Africa and elsewhere.

# 1. Introduction

## 1.1 Purpose of This Paper

This paper is meant to present CBFM in straightforward, non-technical terms. Discussions of principles, practices, and potentials are based on examples from CBFM programs. Constraints and difficulties are examined as well. In the end, CBFM is hopefully rendered intelligible and accessible to interested lay people and NRM professionals alike, with the anticipation that greatly expanded economic and environmental impacts will be realized through the use of this innovative approach.

This paper emphasizes CBFM programs in Africa that are known to the authors firsthand. Thus it has no pretense of being a comprehensive compendium of African or worldwide experience with CBFM

Those working in this field need to pursue the articulation of ‘promising practices’ guidelines for CBFM, perhaps utilizing the nascent forest products certification process that has not yet started in Africa. State-of-the-art information, however incomplete, must be documented frequently along the path to improved systems and more complete knowledge. The authors are grateful for an opportunity to contribute to this process.

## 1.2 Target Audience

The immediate audience for this paper are decision-makers within USAID who weigh NRM investment options and plan the use of these limited financial resources. Secondly, it is hoped that CBFM practitioners who read this publication will be encouraged to write more about their work so that learning can be shared and best practices emerge.

## 1.3 CBNRM and CBFM

Community-based natural resource management, CBNRM, has become one of the most popular elements of worldwide attempts to reconcile competing goals of environmental conservation and economic development. CBNRM practitioners and proponents have written extensively on such topics as techniques for low-impact agriculture and encouraging local participation in wildlife conservation.<sup>1</sup>

One area of the larger CBNRM picture that has not received much attention in the literature is community-based forest management, CBFM. This paper is a modest contribution to filling that gap. It is drafted as part of the follow-up to the 15 May 1998 CBNRM Workshop in Washington,

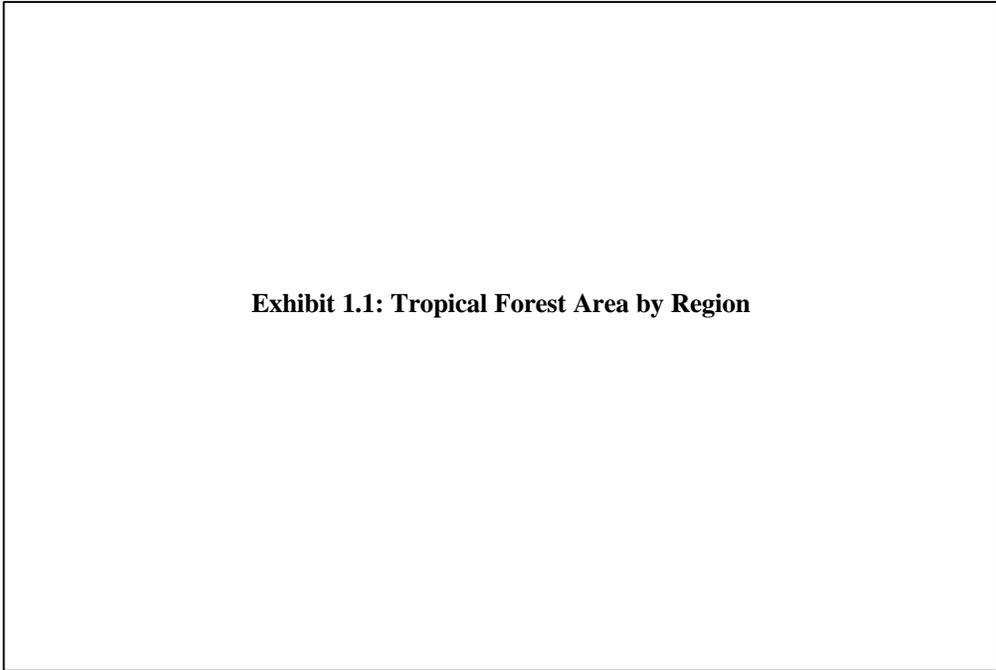
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<sup>1</sup> Many CBNFM case studies were prepared in 1998 in advance of an international workshop organized by the World Bank and other sponsors (see [www.worldbank.org/html/edi/conatrem/index.htm](http://www.worldbank.org/html/edi/conatrem/index.htm)).

D.C., sponsored by USAID. CBNRM workshops hosted by the World Bank and USAID underscore the need to capitalize on experience gained to date in CBFM. This paper was commissioned by the Office of Sustainable Development of the Africa Bureau of USAID, AFR/SD, to review the state of the art of CBFM by: documenting results, impacts and lessons learned from community-based approaches in the context of growing interest by USAID and other donors in CBNRM.

## 1.4 Forests in Africa

Forestland plays a crucial role in the lives of hundreds of millions of Africans, far more people than are directly affected by national parks or game reserves that currently receive the lion's share of donor attention in natural resource management. Forests and rangelands together cover about 84% of the earth's land surface, supplying humans with many necessities (WRI, 1988). In 1988, FAO estimated that forestlands in Africa cover some 870 million hectares, or 40% of the total land area. This included more than 200 million hectares of moist tropical forests and other closed forests, nearly 500 million hectares of open woodlands, and over 150 million hectares of forest fallow.<sup>2</sup>



**Exhibit 1.1: Tropical Forest Area by Region**

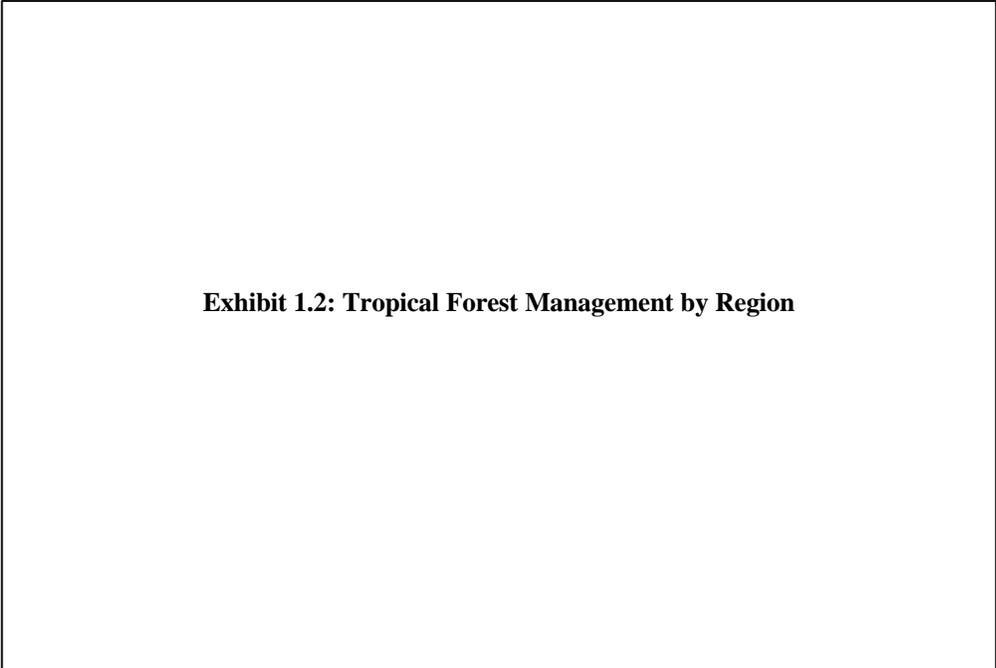
1995 forest resource assessments based to a greater extent on satellite data estimate total area of 'natural forest' including closed and open forest in Africa to be 515 million hectares. **The**

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<sup>2</sup> Closed forest is defined as having a closed canopy, or a cover of trees which is sufficiently dense to prevent the growth of a continuous layer of grass on the forest floor. Open woodland is a type of forest formation with only scattered tree and shrub cover, which allows sufficient light penetration for the growth of a more or less continuous cover of grasses in the understory. Forest fallow is defined by the FAO as wooded areas with some degree of forest regrowth following shifting cultivation within the past 20 years.

**forested area of Africa is larger than the remaining tropical forests of Asia and the Pacific, and represents an extraordinarily important natural resource, both from an international perspective, in terms of biological diversity and global climate change, and from the standpoint of local livelihoods, rural economies, government revenues and environmental services (see Table 1 in Annex VI and Map in the next page).**

FAO estimates that management plans exist for significant areas of forest in only a few sub-Saharan countries, such as Ghana, Uganda, Kenya and Sudan. According to the 1990 Forest Resources Assessment, **Africa has a much higher percentage of unmanaged forest than Asia or Latin America** (FAO, 1990). This reflects more advanced stages of forest inventory and designation of areas for commercial wood production. It also results from the larger percentage of forestland set aside in Asia for wildlife protection, soil conservation and other management purposes (WRI, 1994).



**Exhibit 1.2: Tropical Forest Management by Region**

Large scale reforestation programs have been undertaken in a number of sub-Saharan countries, including South Africa, Nigeria, Madagascar, Sudan, Ethiopia, Malawi, Zimbabwe, Swaziland, Rwanda, Tanzania and Cote d'Ivoire. Still, **forest plantations represent less than one percent of the total area of forest land in Africa.** Forest plantations in Africa covered some five million hectares in 1995 (WRI, 1998).

With respect to discussions in this paper, 'forests' are generally uncultivated lands that surround villages, survive in between farmers' fields, or have been demarcated as national forests, also known as gazetted forests. Whether tropical rain forests or savanna scrub, they supply fruit, meat, fuel, fiber, fodder, construction materials, medicines, and seasonal foods, among other vital commodities for humans. They also provide habitat for wildlife and are havens of biodiversity.

Land clearing, conversion to agriculture, logging, fires, overgrazing and other factors have resulted in huge annual losses of forests and woodlands in Africa. As colonial and post-independence governments in Africa usurped ownership of the natural forests from local populations, indigenous management regimes faded, usually with no effective replacement. Environmental deterioration ensued. These forces contribute to a deforestation-to-reforestation ratio of 17:1.<sup>3</sup> **Deforestation in Africa is estimated at four million hectares per annum. If no measures are taken to reverse this trend, most of Africa's remaining natural forests will be finished before 2050** (World Conservation Monitoring Center, 1996). While these figures may sound exaggerated, one has only to look at Ethiopia for an example of how rapidly a country's natural forests can disappear with inadequate control. Historical estimates suggest that 87 per cent of the Ethiopian highlands had forest and woodland cover. This was reduced to 40 per cent by 1950 and just 5.6 per cent by 1980 (IUCN, 1990).

**Figure 1: Traditional Forest Products.** Mortars and pestles are sold along with firewood. These are valued possessions of African women who spend uncounted hours preparing food with them.

**Returning these forests to rational and sustainable management is one goal of CBFM. Indigenous knowledge and management regimes are important to the design and implementation of CBFM, but modern-day realities require systems that integrate broader social, technical, economic and administrative concerns.** In Africa today, intense demands on the natural resource base, expansion of market economies, and heightened expectations for democratic governance all help shape the still-evolving practice of CBFM.

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<sup>3</sup> Reforestation in Africa in the 1980s amounted to less than 200,000 hectares per year, while deforestation during this period was estimated to be at least 3.3 million hectares annually (WRI, 1988).

## 2. Background

USAID's involvement in natural resource management programs in sub-Saharan Africa over the past three decades can be outlined in a series of milestones.

### 2.1 Milestones

**Figure 2: When Forests Die.** This 1973 photo from southern Niger recalls the fate of Sahelian forests under extraordinary pressure of prolonged drought. Worldwide attention was drawn to this environmental and human disaster.

**1968-1972 drought in the Sahel.** An initial generation of NRM projects were funded to respond to a five-year drought and the resulting famine and environmental degradation. This disaster drew attention of USAID and others to environmental as well as the socio-economic effects of prolonged drought. The drought's impact was exacerbated by sharply increasing pressures on natural resources, and associated depletion of fuelwood stocks, overgrazing, conversion of forestland to cropland and other land use changes. From the mid-1970s to the mid-1980s, USAID funded a series of reforestation and fuelwood plantation programs aimed at establishing greenbelts, 'stopping the Sahara' and replenishing fuelwood supplies. In 1977 the UN organized a major international conference on desertification, giving further impetus to investment in semi-arid regions like the Sahel.

**The 1973 oil crisis.** Price increases for butane gas, kerosene and other modern sources of household energy contributed to an interest in more efficient wood and charcoal cookstoves, as

well as industrial fuelwood plantations and community woodlots. The World Bank and the United Nations Development Programme joined forces in the 1980s in the Energy Sector Management Assistance Program, ESMAP, which funded country studies and sector analyses of household energy programs, including the development of renewable energy resources, fuelwood conservation and improved management of fuelwood stocks. These efforts culminated in household energy programs and multi-pronged strategies or domestic energy, funded by USAID in collaboration with other donors.

**Mandate from Congress.** In 1985, the US Congress mandated a 10% earmark of development assistance funds for environment and natural resource, E/NR, programs. This Congressional earmark and related legislation (section 118 of the Foreign Assistance Act) focused attention on the conservation of tropical forests and biological diversity and contributed to further growth in

USAID's portfolio of E/NR programs by requiring USAID to report to Congress on its efforts to control tropical deforestation and loss of biodiversity.

**Figure 3: Charcoal.** Although decried as wasteful in its production, charcoal is lighter in weight than firewood for long distance transport and usually cleaner burning. Forest products meet the bulk of Africa's energy needs, providing more than 90% of domestic energy in some countries.

**New USAID programs.** In 1987, USAID funded a Natural Resources Management Support project, NRMS, to provide technical assistance to USAID missions throughout Africa with a view to improving the quality and quantity of USAID-funded E/NR investments. NRMS supported numerous country level E/NR assessments and a range of sector studies for E/NR programs. During this period, USAID launched the Biodiversity Support Program, BSP, to increase support for programs aimed at conservation of biological diversity.

**Action Plans.** In the late 1980s, international support for Tropical Forest Action Plans and National Environmental Action Plans grew, contributing to interest and funding for forestry and other E/NR programs. Aid agencies and host country governments recognized the limitations of sectoral approaches, and so increased their attention to more comprehensive program strategies. Policy and institutional reforms were aimed at root causes by establishing more favorable enabling conditions for improved NRM and sustainable development.

**Southern Africa.** In 1988-89, political developments in southern Africa led USAID to fund a series of aid programs in the 'front line' states. This effort was supported by the Southern African Regional Program, SARP, and more recently by the regional NRM Program. Bilateral E/NR programs in Namibia, Botswana, Zimbabwe, Zambia, Lesotho, Malawi and Tanzania focussed on CBNRM, particularly with respect to community-based approaches to management of wildlife resources around protected areas.

**The Rio Conference.** In 1993, the United Nations Conference on Environment and Development in Rio de Janeiro again focused attention of national leaders, governments, NGOs

and other decision-makers on the challenges of sustainable development with particular attention to several critical environmental issues. The Rio conference spurred adoption of several international conventions: Global Climate Change, Biodiversity Conservation, and the Convention to Combat Desertification, CCD. Preparation of national action plans for CCD gave impetus to forest management programs. The conventions on climate change and biodiversity have focused attention on the importance of protecting and managing the world's remaining forests as 'carbon sinks' and critical habitat for the conservation of biodiversity.

## 2.2 Changing Strategies

As the volume and types of USAID investments in E/NR programs evolved and experience grew, program strategies evolved as well. Early emphasis on block plantations of relatively fast growing exotic species gave way to appreciation of indigenous species and agroforestry techniques. The historical preoccupation with 'protection' of national forests for timber production gradually yielded in some countries to managing forests for increased production of forest products that directly benefit local communities.

By the early 1980's, **foresters began to recognize that the 'useless brush' of natural forests was, in fact, extremely valuable, especially in terms of local livelihoods and rural economies.** It became apparent that limited investment funds could generate more benefits and income at the community level to improve management of remaining natural woodlands over larger areas, as opposed to financing more costly establishment and maintenance of relatively small blocks of plantations. Irrigated fuelwood plantations, for example, proved to be much less cost effective than management of natural forests, particularly when management plans provided for production of non-woody forest products in addition to fuelwood and poles.

At the same time, policies of African governments slowly shifted from a command and control mentality that vested authority in government foresters, to one which favors more participatory and decentralized approaches. Various modes of collaborative management and participation have become more common, relying on empowerment and capacity-building of local user groups and community-based organizations. National policies and legislation were enacted in some countries to support these new approaches. A re-assessment of the role of government forest agents is underway in training and institutions in many countries, although implementation of proposed changes is uneven.

The evolution of these new approaches and programs in CBNRM and CBFM has proceeded somewhat differently in each region in Africa. In southern Africa, the relative abundance of wildlife and high returns from ecotourism and trophy hunting have encouraged development of community based wildlife management programs. Over time, these pilot efforts have taken advantage of legal improvements in the enabling environment for CBNRM, and have diversified the range of resources and products targeted by the programs.

In less densely populated and more densely forested central Africa, interest in natural forests is largely limited to conservation groups' concerns for biodiversity and protected areas management on one hand, and logging and wood processing enterprises on the other. This region

has relatively few examples of successful CBFM. In very different ecosystems, west Africa has experienced an increasing interest in CBFM, driven by scarcities in fuelwood and other forestry products. In recent years some of these efforts have been integrated into community-based land use planning and other participatory programs.<sup>4</sup>

Against this backdrop of a contextual milestones and evolving strategies, let us turn to the what, why, where and how of CBFM.

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<sup>4</sup> Many decentralized, community-based NRM efforts are stressing human resources development and the improvement of local organizational capacity, support for NRM or agriculture-based enterprise development, and improved access to rural credit and financial management training, and are sometimes referred to in French as *développement local* activities. Section 5.2 discusses these in west Africa.

### 3. What is Community-Based Forest Management?

Each composite part of this term contributes directly to its meaning. Here they are considered in order: community-based, forest, and management.

#### 3.1 Community-Based

As discussed in more detail in Annex I, a series of conditions make meaningful community-based management possible. What is required for CBFM is poles apart from previous government-contrived systems to control popular ‘participation’. This manipulation was carried out under a variety of national programs, sometimes attempting to co-opt indigenous institutions, other times using socialist concepts. Rural populations chafed under imposed patterns of organization, while simultaneously continuing customary associations and developing new ones.

Since the 1980s, autonomous African rural organizations have assumed new tasks and importance. Political transition away from command economies and highly centralized authoritarian regimes has created new openings for such self-determined local groups. They are emboldened in their challenge to top-down authority to the point that their representatives could demand more autonomy and declare at an intergovernmental meeting on management of village lands and resources in the Sahel, “The work we do is actually for the country, and in fact, we are the country” (Otto, 1991).

**The sense of ‘community-based’ for CBFM is that the communities involved with a forest have the legal right, the institutional base, and the economic incentives to take substantial responsibility for the sustained use of that forest.** This must mean genuine citizen control, grounded on delegated powers that are mutually agreed through a binding partnership with the government.

#### 3.2 Forest

‘Forest’ may seem the most obvious element in CBFM, yet it deserves some elucidation in this context. Natural forests in Africa range in type from sparse vegetation of desert steppes in the Sahara desert to moist humid tropical rain forests in the heart of the Congo basin, and every natural zone between these extremes. Debates on the pros and cons of artificial forests notwithstanding, forest plantations dot the African landscape in many countries, and are included in the CBFM definition of forests.

**Figure 4: You Call this a Forest?** In 1994 foresters from relatively moist Benin went north to Niger to visit the semi-arid Guessebodi Forest (pictured above) and unanimously asked: You call this a forest? The following year the Toui-Kilibo Forest in the Savannah woodland zone of Benin was visited by foresters from the still more moist Cote d'Ivoire who rhetorically asked: You call this a forest? Barren as Guessebodi may appear to outsiders, it is an invaluable resource to sedentary and seasonal users, and provides sustainable yields of firewood for the nearby urban market of Niamey.

Typologies abound. The Conservation Atlas of Tropical Forests in Africa discusses 16 main vegetation types in White's classification: woodland, bushland, thicket, shrubland, grassland, wooded grassland, desert, afroalpine, scrub forest, transition woodland, scrub woodland, mangrove, herbaceous fresh-water swamp and aquatic vegetation, halophytic vegetation, bamboo and anthropic landscapes (Sayer et al., 1992). Ethiopia alone has twelve agroclimatic zones, each with its distinct natural vegetation which can be considered as forests with potential for management by local communities. All of these vegetative types are vital to the cultural, spiritual, and economic needs of rural African communities whose survival depends on long-term conservation of the forests.

Some classifications insist that a 'forest' requires trees occupying a minimum percentage of total area, although nearly everyone would consider dense stands of bamboo—which is a grass, not a tree—to be classified as forest. Trees may be the largest and most impressive permanent element of forests; yet, other products and uses (livestock feed, wildlife, tourism) may be more valuable than timber, or at least must be integral parts of forest management plans. **In the lexicon of CBFM, any patch of natural vegetation or tree plantation that is of interest to sedentary or seasonal users is considered a 'forest'.**

Apart from their classification according to vegetative type, forestlands in Africa are categorized by their legal status. The highest level of protection is afforded to National Parks and other so-called Protected Areas, where little or no use is allowed to local people. National Forests (forêts classées or gazetted forests) are demarcated forests under government control. The degree to which local communities are allowed to use the forest varies according to country. The remainder of forestland—which accounts for the bulk of the continent's forests—are confusingly referred to as 'protected' by the state (forêts protégées, or domaines protégés), but in reality are loosely controlled by customary arrangements that have no legal status.

**Figure 5: Forests Without Trees.** In Somalia, camels graze on the acacia-commiphora bushlands and thickets that are also common to nearby areas of Kenya and Ethiopia.

### 3.3 Management

Definitions of ‘manage’ all fit the sense of the term for CBFM: to have charge of, to succeed in accomplishing, to carry on business, to contrive to get along (Webster’s Dictionary, 1990). Management in the CBFM context as presented in this report requires communities to have charge of forests through negotiated rights and responsibilities that allow all parties to succeed in accomplishing an agreed management plan. CBFM requires forest-product enterprises to carry on business to achieve concomitant goals of financial viability, social equity, and ecological sustainability.

**Management versus protection.** In forestry, management implies harvesting forest products on a sustainable basis. In this sense ‘management’ contrasts with ‘protection’ of a forest. Protection under government control in Africa has usually meant that no harvesting occurs, and that the ecosystem is maintained with minimal interference by humans. Trees, grasses and other vegetation mature, die and rot, rather than being used. Thus, ‘protected area’ is used for National Parks and Game Reserves where human habitation is prohibited (and indigenous people may be forcibly removed), and few or no user rights exist for surrounding or transient communities.

### 3.4 CBFM Basic Ingredients

Using the connotations outlined above, CBFM, as defined by the authors, can be stripped down to three basic ingredients:

- Forest management plans that are recognized as legally binding documents, allowing community participation in forest management.
- Involvement of all stakeholders: hunters, herders, farmers, fisherfolk, women and men, the government, long-standing and newcomer populations, the powerful and the marginal of society.
- Once management plans are accepted, communities become the primary implementers, assisted and monitored by the forest service.

## **4. Why Undertake CBFM?**

The involvement of communities in the decision-making process and management of forests is not another passing trend being tested in developing countries. It is evolving in response to a world-wide cry for a new paradigm in the forestry sector, a radical shift from current forest management approaches that fail to address issues and problems voiced by environmentalists, local communities, the private sector, and forest service officials.

Henson Moore, President and CEO of the American Forest and Paper Association, aptly summed up the current state of affairs: “In the western U.S. our vast forest lands have created economically dependent communities while invoking an almost spiritual response from an urban population intent on preserving them. Federal agencies have been unable to mitigate these conflicts, much less resolve them satisfactorily, and have not given voice to those most affected. Hopefully, all that is changing. Forest communities are turning to those most affected by the decision – themselves—for answers to a daunting question: how to rebuild a viable economy that supports families and jobs without exploiting natural resources beyond their sustainable level and damaging the ecology” (Moore, 1998).

CBFM makes sense in Africa for the same reason that it makes sense in the US or elsewhere: it is a response to the inability of government agencies alone to deal with the technical, political and socio-economic issues of forest management that range in scope from local employment opportunities to global warming. In Africa, other convincing arguments justify CBFM.

The following section reviews these, starting with the arguments based on ethical and practical considerations, and moving through economic considerations such as links to other sectors, income generation and benefits of women’s involvement. The section ends with discussion of the positive impacts of CBFM on democracy and governance and on governments’ revenues.

### **4.1 Recognition of the Inherent Rights of Forest Communities**

“It seems rather odd for us to enforce the reserve forest law on the people in the forest which became reserved only subsequently by the mere drawing of lines on pieces of paper. The problem arises inasmuch as, with the delineation done, these people became violators of the law; it is a violation because the law was duly enacted, but according to natural law, the violator of the law is the one who drew the lines because the people who had been in the forest previously possessed the human rights, meaning that the authorities had encroached upon individuals and not individuals transgressing the law of the land.” This statement, made by the His Majesty Bhumibol Adulyadej, King of Thailand, more than 25 year ago (Lynch and Talbott, 1995), holds true for all countries of the world where local communities have been forced out of forests handed down from generations as an integral part of the village territory.

The divisive colonial legacy typified by the ‘scramble for Africa’ at the Berlin Conference in 1884-85 is perpetuated by post-colonial governments allied with logging companies, safari

outfits and international environmental NGOs, each with its own agenda. The main driving force of post-colonial governments is the same as the European powers who gathered around the map in Berlin: greed and control.<sup>5</sup> The losers are the same: unempowered hunters, gatherers and farmers who continue to ask the same question: “What do we have to do to scratch a living from land that is ours; land that was protected by our ancestors... is this a dream?” (Cameroonian farmer quoted in 1998). If authorities encroach upon the rights of individuals, should not the world community act to restore their rightful heritage?

**Figure 6: Pit Sawyers.** In Africa, logs are typically cut using pits (or temporary scaffolding in this scene) for vertical sawing into lumber. This is a ‘forest-friendly’ technology that requires neither heavy equipment to move logs to the sawmill nor roads for collection, as sawn lumber is usually head-carried to a collection point.

## 4.2 Use it or Lose It

“Tropical forests that offer no tangible results to their residents and neighbors will likely soon be converted to something that will, like a cornfield or pasture. Policy makers have learned and relearned that lesson many times in the tropics over the last 200 years, but each new generation seem to always have to learn it again” (Wadsworth, 1998).

Although Wadsworth wrote this based on experience in Latin America, it is a universal truth of tropical forestry around the globe. Paradoxically, zero-logging and total protection strategies to promote bio-diversity conservation as espoused by some environmental groups can lead to an increase in poaching, late-season fires and illegal cutting. As one forester in Ethiopia recently stated: “Unless you can put a guard behind every tree, total protection is impossible. The forest is

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<sup>5</sup> In fairness, some powerful people doubtlessly believed (and still do) that leaving forests in the hands of local people leads to deforestation, and that only centralized authority can save these resources. Individuals in forest communities are not necessarily more virtuous than those living elsewhere. Yet, they understand intuitively that their long-term interests lie in optimum sustainable exploitation of the forests, not maximum short-term profits, and so their stake is far higher than that of outsiders

more lively at night with hunters and woodcutters than its during the day” (personal communication).

Local forest communities are best placed to control deforestation and oversee management of forests located in their village territory. **Experience has clearly shown that local forest communities are willing stewards to conserve and manage forests once they are granted an adequate stake in the benefits resulting from sustainable management systems.**

#### ***Local control means business in Benin***

*Following the signing of the management plan at the National Forest of Toui-Kilibo in Benin, villagers took complete responsibility for implementation of the forest policies as defined in the management plan. In one instance, the King of Papane excommunicated his son from the village for cutting charcoal outside of the managed area. Within one year of the signing of the plan, deforestation was negligible. “Because users are involved with foresters in policing the forest, the intensity of surveillance has escalated manifold. This, in turn, translates into a radical reduction in the temptations that users and foresters face to cheat on the rules because the likelihood they will be caught and penalized if they act illegally is so much greater” (Thomson et al., 1997).*

The capacity of communities to control deforestation is clearly demonstrated from aerial photos of national forests under government control and other forests under traditional village control. In many instances, uncontrolled slash and burn agriculture is more evident within the national forests than in the forests managed by traditional law.<sup>6</sup> Neither forest communities nor forestry officials, no matter how well intentioned, can change this land use/abuse situation alone; genuine participation and benefit by forest user groups and partnership with government must be pillars of the new paradigm.

### **4.3 Direct Linkage between Forestry and Other Sectors**

Multi-purpose forest management is directly linked to the development objectives of other sectors of rural development. CBFM is an opportunity to develop these sectors within the context of a forest management plan. Discussed here are the links to health, agriculture and livestock

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<sup>6</sup> Clearing forests to produce crops by slash and burn practices is a means by which African farmers have survived for centuries. The practice by itself is not necessarily all bad. In fact, if practiced correctly on a regular rotation, slash and burn, is sustainable. However, in the past, such traditional farming practices were controlled by local *Chefs de Terres* who were consulted by farmers before any clearing took place. The colonial and post-colonial governments usurped this power, however, which has resulted in uncontrolled clearing of forests. Although, some traditional land managers are still in power, this power has diminished significantly in recent times for a variety of reasons (war, democracy, Marxism, shift from traditional to modern). With a lack of control at the local level, migrant farmers are free to clear new areas of the forest for agriculture as long as they make an arrangement with the forester. Moreover, farmers are less likely to practice sustainable agriculture if they know that they can continue to deforest annually which is the practice of yam farmers in coastal west Africa.

### 4.3.1 Health

In many areas of Africa, the forest is referred to as ‘the poor man’s ice box’. It is a continual source of bushmeat, caterpillars, fish, leaves, fruit, nuts, berries, mushrooms and roots that provide protein, vitamins, carbohydrates and fats. Many hunters and gatherers depend entirely on the forest for their food. Villagers also refer to the forest as ‘the people’s drug store’ used by herbalists for healing the sick. Recently, international pharmaceutical companies have recognized the enormous untapped potential that tropical forests offer as a source of drugs that could be marketed globally.

### 4.3.2 Agriculture

Although the focus of CBFM is on forest management, agricultural production is often important within the forest boundaries and in the areas immediately surrounding the forest. Inside the forest, the main issue regarding agriculture is how to regroup existing scattered fields into concentrated, demarcated agricultural zones that are easier to control. Outside of the forest, forest managers work in collaboration with extension services to intensify agricultural practices, thereby increasing productivity and reducing the pressure for new land. Both Mali and Senegal present examples of the positive effects that well managed forestlands have on groundwater levels and healthy watersheds in populated areas beyond forest borders.

Training in enterprise, management, and marketing skills linked to forest-based enterprises can be carried out hand-in-hand with farmers to promote outgrower schemes or agribusiness. This approach is being tested in a natural resources management initiative financed by USAID in Eastern Province, Zambia. Although the primary objective of the project is to introduce community-based forest management, the agricultural component offers an added opportunity to the farmers to raise their incomes.<sup>7</sup>

**Figure 7: Forests as Pasture.** In much of Africa, natural forests provide forage for livestock who are vital elements in agro-silvo-pastoral systems. With proper integration into development and implementation of forest management plans, herders actively use the forest while contributing to its maintenance through grazing fees.

<sup>7</sup> This approach is being tested in a natural resources management initiative financed by USAID in Eastern Province, Zambia. Although the primary objective of the project is to introduce community-based forest-

management plans, the agricultural component offers an added opportunity to the farmers to raise their incomes.



### 4.3.3 Livestock

A healthy livestock sector depends on the availability of grasses, forbs and fodder trees, all of which are found in the forest. In many forests of the semi-arid regions of Africa, livestock production is the major source of income for sedentary and nomadic herders. As croplands expand and natural pasture rangelands are degraded or converted to other uses, herders turn to remaining forested areas to graze their livestock.

These forestlands are important both in the rainy season, when livestock movements are forbidden in cultivated zones, and in the dry season when forage and water sources are more rare. CBFM presents an opportunity to work with herders and discuss practical management strategies to control over-grazing and reduce conflicts between farmers and herders.

## 4.4 CBFM Generates Cash Income for Farmers

Not unlike dairy farmers in New England who supplement their milk business by logging during the winter and producing maple syrup in the spring, African farmers depend on the forest as a means to supplement their meager farming incomes. Logging, charcoal production, beekeeping, fishing, hunting, gathering, and sale of firewood are all forest-based activities that provide income to local populations on a full or part-time basis.

### ***Significant income from forest-based enterprises***

*In Burkina Faso, it is estimated that woodcutters earn between 25,000 and 125,000 FCFA annually (\$US 50-250), a very significant supplement to their incomes during the dry season when many other farmers have migrated to Ivory Coast, Ghana or Benin in search of employment. In Benin, after one year of CBFM in the 50,000 hectare forest of Toui-Kilibo, more than 33 forest-based enterprises were in operation, offering 800 part-time and 1000 full-time jobs. (CLUSA, 1998).*

**Figure 8: NTFP.** Gum secreted by acacia trees (the small ball in middle of photo) has been a non-timber forest product for many centuries. It finds a local market in medicinal uses and chewing gum, and is exported worldwide as a food additive, among many other applications.

**Additional employment opportunities from labor-intensive activities linked to the enrichment and maintenance of the forest.** In addition to opportunities created by forest-based micro-enterprises, a certain percentage of the population will benefit directly from carrying out forest management activities either as contractors or laborers for the various activities related to maintenance of the forest. These include road maintenance, forest inventories, guarding, seedling production, timber stand improvement and plantation maintenance. Ideally, these activities are defined in an annual work plan and funded through the forest management fund. Representatives from all participating villages oversee hiring of laborers and awarding of contracts.

#### **4.5 CBFM Involves Women in Real Income-Generating Activities**

“The role of women in forestry is to improve their living standards. Women themselves must determine their own needs, priorities and possibilities for action. By working together, government officials and NGOs can help women take appropriate resource management decisions” (Williams, 1992).

CBFM is a means to overcome some of the major constraints linked to production and marketing of forest products by women. According to research done by Paula Williams, the major problems that women face in the forestry sector are tenure, mobility, time, information, training, education and lack of access to credit (Williams, 1992). Added to this is the fact that women have stagnated in ‘women’s-work’ activities such as labor-intensive food-for-work, improved woodstove programs and tree nurseries that create limited income-generating opportunities in the long run.

With the perfect vision of hindsight, it is now understood that activities originally targeted to address women's needs may have unintentionally assisted in distracting them from participation in more lucrative forest-based enterprises such as firewood, charcoal and timber, all of which are run by men. (Where firewood is still a 'free' commodity, women are expected to procure it for free for their households.) **Business-savvy African women who now hold their own in many commercial fields, can also be assisted to participate in the rough-and-tumble world of harvesting and marketing timber, firewood and other products.**

We have learned that when efforts target women they will respond and seize new opportunities that are opened up by skills training, access to credit, and organizational capacity building. In Benin's CBFN project, for example, for the first time in this cultural area women as well as men have established charcoal production businesses.<sup>8</sup> CBFM offers training, adult literacy and credit to all women who are interested in starting their own forest-based enterprise regardless of its nature. See Annex IV for more discussion on women in CBFM.

## 4.6 Democracy and Governance

Democracy and governance, D&G, has emerged as a dominant development theme of the 1990s. Many programs focus on national level D&G issues of representative parliamentary systems, multi-party politics, free and fair elections and independent judiciaries. Meanwhile, CBFM provides citizens with practical experience in local control of a vital local resource, producing a groundswell of support for increasingly democratic systems and devolved governance. This movement demands positive changes in central government policies and practices, and decentralization of functions to lower levels within government, i.e., moving decision-making closer to the people and their management of natural resources.

In Benin the CBFN program has already led to enhanced citizen governance of forests and to devolution of authority within government. A team of international experts conducting the Benin Governance Assessment recently highlighted CBFM as a rare example of local impact on D&G, with this bold-face finding: **"A better model of decentralization already exists: through on-going devolution of control to several levels of local government along lines already approved by the Ministry of Rural Development for natural resources in Toui-Kilibo Forest. The people of Benin should demand, and donors should support, this kind of devolution in all sectors."** (Thomson et. al., 1997). CNFM provides more than an opening for improved relationships between governments and communities; because of skills training it also changes relationships among local communities and between communities and private sector entities – usually in the direction of greater control for local groups that are designated to represent community interests. Annex I contains more information on D&G, decentralization and other elements of the enabling environment.

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<sup>8</sup> Another example of project intervention influencing gender roles concerns the manual ram press for oil extraction in east and southern Africa. Where press dissemination was not directed, men dominate this new money-making opportunity; where NGOs promoted the press to rural women using women extension agents and targeted credit, women now own and operate thousands of oil pressing enterprises. The introduction of new technologies, or productive methodologies like CBFM, provides opportunities for women to undertake economic activities on a more equitable basis than may be customarily possible.

## 4.7 Source of Revenue for the Government

At present, a very small percentage of taxes and fees associated with the exploitation, transportation and marketing of forest products is collected. This is due largely to poor financial management and corruption. In Benin, Leinhert—a German economist --estimated that less than 10% of potential forest-related revenues is actually collected and deposited in the treasury (personal communication). While the ultimate solution involves an overhaul of the existing institution charged with collecting the revenues, i.e., the forest service, CBFM offers a practical, transparent system of revenue collection through local NGOs, cooperatives, and businesses involved in forest management activities.<sup>9</sup>

### ***Fuelwood income for the government of Niger***

*In Niger, receipts to the State Treasury were raised from about 59 million FCFA (less than US\$200,000) in 1984 to 178 million FCFA (about US\$356,000) in 1996 following a reorganization of the fuelwood sector that allows local communities to cut, market and transport fuelwood from rural markets (Government of Niger, 1996).*

## 4.8 CBFM Can Be Financially Sustainable

A recent report from the World Bank on lessons learned from the first generation of biodiversity conservation projects in Africa states that “biodiversity operations are unlikely to be financially sustainable” (Hurt T. et al. 1998). Biodiversity conservation, as presently implemented, will more than likely always require some kind of outside financial assistance.

CBFM programs, on the other hand, offer an opportunity to break away from financial dependence. In Benin’s CBFM program, most activities undertaken by communities according to the forest management plan contribute a portion of their profits to a forest management fund administered by local structures to pay for recurrent costs of management such as enrichment planting or road maintenance (see Annex II). More lucrative forest industries like logging contribute more than cottage industries, such as beekeeping. Contributions to the forest management fund are not meant to replace cutting permits or other fees required by the government.

Although none of the first generation of CBFM projects have been operating long enough to draw major conclusions regarding locally-administered management funds, preliminary indications are that they can work but will require more testing and monitoring by third-party,

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<sup>9</sup> In theory, a percentage of the ‘new’ revenues generated from CBFM enterprises would be reinvested to support under-budgeted forest services. In fact, once the funds are sent to the State Treasury they are absorbed by the system. Attempts to create National Forestry Funds to assure that revenues are returned to support the forestry sector have sometimes met with resistance governments. Other options to consider are Forestry Corporations or Commissions that would run solely on revenues generated by sale of permits and concessions. Unfortunately, past mismanagement of such parastatal enterprises in Africa makes it difficult to consider this approach as a viable option.

independent institutions.<sup>10</sup> Because of inadequate national budgets and decreasing foreign assistance, financial sustainability will be the real test of whether CBFM can, in fact, offer an alternative to the present dependence on outside aid.

#### 4.9 CBFM as an Alternative Means to Biodiversity Conservation

One of the fundamental guiding principles of CBFM is the concept of ecosystem management. Simply stated, ecosystem management is based on a profound respect and understanding of the unique ecosystem characterized by each forest considered for management. The concept is not new to many African forest users, but has been eroded largely because of poverty and tenure issues.

In order for CBFM to function and for biodiversity of plant and animal life to be maintained or even enhanced, people must be considered part of the ecosystem as well. “There is a growing recognition among conservationists and others that generally protected areas cannot be managed practically or ethically without considering the people who live in or near them” (Fisher, 1995).

**Figure 9: Beekeeping.** Honey is harvest at night in Toui-Kilibo Forest, Benin, Where the DBFN project introduced improved hives that reduce environmental impact, increase yields, and ease extraction of this vital non-timber forest product.

CBFM advocates that the integrity of plant and wildlife populations be guarded, even if the forest is under an intensive multiple-use management program. Thoughtfully managed forests of the world allow logging, recreation, and hunting to occur on the same land with minimal impact on resident plant and animal populations. **In Africa, when forest users’ are assured that their**

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<sup>10</sup> Following the completion of the Forest Land Use and Planning Project in Niger in 1988, the forest management fund at the forest of Guesselbodi was taken over by the local forester, and all of the management activities (guards, enrichment planting) ceased shortly thereafter.

**economic opportunities depend on preservation and enhancement of the environment then biodiversity conservation becomes a co-product of sustainable forest management without additional, unsustainable biodiversity investments.**

***Funters opt for hunting moratorium in Benin***

*In the forest of Toui-Kilibo, Benin, hunters declared a five year moratorium on all hunting as a policy of the management plan. This was in response to a realization that uncontrolled hunting had been the cause of the disappearance of most of the wildlife in the forest over the past 15 years. Control of the hunting is now in the hands of the hunters themselves, under the supervision of the traditional hunting master.*

## 5. Where to Implement CBFM?

Considering the huge number of large forested areas in Africa, choices for CBFM intervention should focus on forests with the highest chance of success. Indicators of success for CBFM fall into two broad categories: socio-economic wellbeing and conservation of ecosystem elements.

Success can be predicted by assessing the maximum number of benefits that can be generated for the greatest number of people from the biologically richest forests with the best markets for their products. Before a long-term commitment is made, the time required to prioritize forests based on chances for success is well spent.

### 5.1 National and Regional Land Use Planning

Ideally, forest management would be carried out within the context of national or regional land use plans. Unfortunately, past efforts by scores of scientists and millions of dollars invested to assist African governments to develop such plans have, for the most part, failed.<sup>11</sup>

In contrast to these failures, regional authorities in the Amhara Region of Ethiopia are committed to land use planning and have, in a relatively short period of time, developed basic planning maps with a minimum of outside technical and financial assistance.

#### ***Land use planning in Amhara Region, Ethiopia***

*One of the major problems facing the Bureau of Agriculture in Amhara Region, Ethiopia, is migration of farmers and herders from the over-crowded highlands to the lowlands near the border of Sudan. Despite increasing pressure on the lowlands in the last ten years, an important area remains covered by acacia/commiphora/boswellia forests containing some of the largest remaining stands of frankincense in Africa and a variety of wildlife and birds. In an effort to stem recent uncontrolled deforestation by commercial farmers, the Land Use Planning Team from the Bureau of Agriculture in Bahir Dar sent a multi-disciplinary team to the lowlands to develop land use plans in collaboration with local community leaders, politicians, and farmers. With a minimum of equipment and experience, the team managed to produce practical planning maps in less than two years, demarcating areas to remain as permanent forest estates and areas with high agriculture potential. The maps are presently used to prioritize forests with the highest potential for successful management by local communities as partners with the Department of Agriculture, North Gondar Zone.*

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<sup>11</sup> In Niger, USAID's Forest and Land Use Planning Project fell short of accomplishing its main objective: to institutionalize land use planning on national and regional levels. Maps developed with state-of-the-art technology have not been used by the government for land use planning. Other donor-driven projects have produced similar maps with similar results.

Using the Ethiopia experience as a model, similar exercises could be carried out in other African countries to produce basic land use planning maps showing areas most appropriate for agriculture and areas best classified as permanent forest estates. Following such an exercise, forest areas would be gazetted and prioritized for management intervention in a national action plan. Ironically, such a basic notion of planning is lacking in most forestry action plans, environmental action plans, and conservation strategies drafted during the past fifteen years.

## 5.2 Other Approaches to Local Land Use Planning

In the absence of national and regional land use plans, attempts are underway to assist communities to develop local land use plans. Besides CBFM, some common approaches in use today are community-based natural resource management (CBNFM), *gestion de terroirs villageois*, GTV, and “*local development*.”

CBNFM connotes a variety of approaches that attempt to make resource users more central to local decisions making. Using the French geographic concept of *terroir*, the system known as GTV loosely means local management of village territories. The basic idea is that better land use planning at the local level will result in better natural resource management practices. GTV applications have recently led to a more inclusive concept of ‘local development’, integrating natural resources a management with other sectors of concern to the community.

All of these models have been adopted to meet various stakeholder’s needs. There is a risk, however, that funds will be used to entice villagers to participate in the development and implementation of NRM plans in exchange for material incentives: new schools or bridges, improved chicken houses, access to credit, or whatever villagers have prioritized during participatory appraisals. Communities’ ‘wish list’ priorities may focus on infrastructure improvements rather than on natural resource management itself. Thus, while communities agree to participate in development of local NRM plans, their proximate interests are linked to the promise of non-NRM investments. Another drawback of this focus on ‘accompanying investments’ in that project implementers may emphasize predetermined numerical targets of physical accomplishment to the detriment of enhancing local systems of resource control. The end result is that once these investment incentives cease, most of the NRM activities also cease for lack of genuine local commitment or organizational development. This raises serious questions about sustainability.

Any government, donor or implementing agency can claim to be using GTV or another approach, regardless of their actual program. Thus, **one must look beyond the labels to see whether the objective is genuine empowerment with concomitant activities that strengthen local institutions and build economic opportunities, or whether the imperative of the program is to dispense funds in the name of improved resource management.**

While the debate continues over the pros and cons of applying GTV and other approaches, a few cases of local land use planning that have shown some results can be cited. In such cases, for example Meket, Ethiopia (see box below), communities have determined that certain areas of

their terroir should remain forests and others converted to agricultural land. CBFM has a high chance of success in such communities.

#### **Local land use planning in Meket, Ethiopia**

*In Meket, North Wollo Zone, Ethiopia, with technical assistance from SOS Sahel and local forest agents, communities have demarcated degraded hillsides as 'management areas.' After one year of protection from grazing animals, there is sufficient fodder to sell and pay a local guard. The areas are planted with eucalyptus trees that will be sold as poles. Firewood and fodder are also harvested by the user-groups. Simple management plans are developed for each demarcated area describing how the forest products are to be harvested and who will benefit.*

### **5.3 Gazetted Forests: An Opportunity to Introduce CBFM**

Gazetted forests are national forests established, for the most part, during colonial times. Colonial foresters selected what they considered the best forests based on assessments of timber, wildlife and watershed management potential. At the time of gazetting, local populations were moved out of the demarcated forests and their use was limited to traditional activities such as gathering fruits, medicinal plants or dead wood for household use—always with permission from the local forester. Hunting, grazing, farming, and cutting of trees for commercial purposes by local communities was prohibited; however, these same activities were vigorously pursued by the colonial governments and private logging enterprises, who exported the biggest and best logs to Europe.

In post-colonial times, many of Africa's gazetted forests are in a state of disarray and deterioration. Maps and records have been lost. Local foresters who still control the use of these forests sometimes profit by selling illegal usage rights to herders, farmers and woodcutters. Systematic highgrading, i.e., removal of the biggest and best logs, continues even though in some countries a considerable portion of the valuable timber species have been harvested. Despite these problems, many gazetted forests are still of great value to local communities and domestic markets for firewood, timber, fodder, bushmeat, medicine, fruits, mushrooms, caterpillars, honey and a variety of other non-timber forest products.

Sorting out the problems of gazetted forests in Africa offers an opportunity to introduce community-based forest management as a solution to conserving these important forests. Unlike forestlands that are not gazetted but still basically under customary rule systems, tenure is generally not a problem in gazetted forests where local populations are aware of the forest boundaries. Moreover, despite continued resistance from some hard-line foresters, **African forestry departments are under increasing pressure to remedy the deteriorating situation, and thus are increasingly open to transfer of forest management responsibilities to local communities as long as there is a mutually accepted management plan.**

One might think that the first logical step of any forestry intervention in Africa would be to conduct a survey of a country's gazetted forests. Where are they? How big are they? What do they contain? Do maps exist? Is there any semblance of management plans? For the most part, these basic questions have not been answered. With a minimum of effort, however, they could be answered.

Following this survey exercise, decisions must be made to prioritize forests that have the highest potential for management in terms of forest resources and market opportunities. In principle, some of the gazetted forests that have been converted to agriculture would be 'ungazetted' and new gazetted forests would be created in areas that, for one reason or another, were not subjected to destructive pressure from local populations in the past but are threatened today. For example, some major forests in West Africa were uninhabited due to the presence of river blindness, whose cause has now been largely eradicated.

Ideally, the initial phase of sorting out a country's national forests will be followed by CBFM interventions to develop several models in forests with the highest chance for success.

#### **5.4 Seriously Degraded Forests are Not High Priority for CBFM**

Forests with no ready market for lucrative products are still locally valuable as a source of household forest products; thus, they merit consideration for intervention by CBFM projects. However, as noted above, forests that are seriously degraded have a lower chance of economic success, simply because their deteriorated resource base requires a higher investment in planting and maintenance.

##### ***Guesselbodi, Niger: a forest too degraded to be CBFM priority***

*Although the gazetted forest of Guesselbodi, 25 km east of Niamey proved successful as a pilot effort that led to a national program of firewood management, the forest resource base is seriously degraded when compared to other forests south of Niamey. As a result, much of the management effort focused on costly soil conservation and enrichment planting activities. If a national forest planning exercise had been carried out, it is doubtful that Guesselbodi would have been selected for management over more promising forests that also provide fuelwood to Niamey.*

#### **5.5 Protected Areas**

By definition, legally 'protected' areas such as game parks are not candidates for community-based forest management. Perhaps they should be.

The basic philosophy behind the creation of protected areas in Africa is the same as that for wilderness areas in the US: some pristine ecosystems should be preserved for eternity from any

intervention by humans. In Africa, protected areas include national parks set up by colonial governments. The rare creation of new protected areas is driven largely by international conservation groups. Local communities are often informed after the fact and are involved neither in the decision to demarcate a protected area nor in the location of boundaries. Although participatory approaches are nominally espoused by all, in reality, the most that local communities can hope for is compensation for crop losses due to wildlife damage, or access to menial jobs associated with the tourist trade.<sup>12</sup> As a result, many of the protected areas are threatened by local hunters and herders who remain openly defiant to the idea.

Advocates of community participation around protected areas can learn lessons from CBFM experiences, even if direct access by local users to game parks' natural resources remains off limits in most cases. One case where CBFM can contribute to protected area practices concerns more genuine levels of participation through joint development of area management plans, perhaps focused on the larger ecosystem of which the park is part, or on community-held lands adjacent to the park. Another example concerns more direct benefit in the economics of preservation through negotiation of realistic and dependable shares of tourism and safari revenues that are distributed in ways beneficial both to the environment and affected communities.

#### ***Wildlife Management Areas in Tanzania***

*As population pressures and other factors increasingly constrain the free movement of wildlife outside the boundaries of protected areas in Tanzania, conservation agencies have begun experimenting with creation of Wildlife Management Areas. A WMA is a land use planning arrangement in which a village or series of villages makes agreements with government authorities to limit and control resource management activities in a given zone for the benefit of human and wildlife populations. Though the term emphasizes animal resources, WMA agreements can consider vegetation cover, water and other resources. On one hand, the core concept is not yet legally recognized, village boundaries are often in dispute, and WMAs have proven to be very complex, labor intensive endeavors, constrained by insufficient levels of revenue sharing. On the other hand, the stakes are very high for conservation through shared management, and options to maintain viable wildlife corridors beyond park boundaries are few. Like CBFM programs, local land use planning efforts followed by the formulation of legally recognized management plans is an idea worth pursuing in/around protected areas. (Otto et al., 1998).*

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<sup>12</sup> Innovative approaches to involve communities in protected areas are being tested by CAMPFIRE in Zimbabwe and ADMADE in Zambia. The basic strategy is to channel a percentage of revenues from safari businesses back to local communities. Although a step in the right direction, questions have been raised in both projects regarding financial management and equity. Moreover, the approach is entirely dependent on the presence of wildlife and infrastructure to attract safari hunters – conditions applicable to an extremely small proportion of the African continent. On the other hand, the Botswana NRM project began with a wildlife focus and built some local capacities, which subsequently resulted in branching out to other economic activities.

## 5.6 Setting Priorities Among Forests

**Priority should be accorded to forests that have the highest chance of success in terms of economic, biological and social criteria such as commercial quality resources, size and access to markets, and interest level of local communities.**<sup>13</sup>

This does not imply that forests with much less commercial value are not worth managing. In fact, at present, forests with limited commercial potential in Africa far outnumber the truly commercial forests. Although the management approach is less intensive than in a highly commercial operation, the principles of management and the steps to follow are basically the same. Moreover, situations often change: as more interest is given to lesser known species and non-timber forest products, as good management enhances a forest's inventories, or as market access improves due to road construction. A forest that has low commercial value may well become much more commercially viable in the future.

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<sup>13</sup> International interests typically focus on timber when defining 'commercial' forests. In the African contest, a sizeable nearby market for firewood, poles, and/or NTFPs makes a forest with these resources commercially viable in CBFM terms: it can generate enough revenues for intensive management. On the other hand, another forest with similar resources that is not located within affordable transport distance of sizeable markets lies outside this definition of a highly commercial forest.

## 6. How to Develop and Implement a Forest Management Plan

**“In few other fields of resource management are the problems as complex, the goals as difficult to achieve the efforts as far reaching, and the results as stimulating as in the management of a forest”** (Meyer et al., 1961). And probably nowhere in the world are the problems as complex and challenging as in Africa. In light of this, one can understand why international and African foresters have opted to focus on the relatively safe havens of seedling production, woodstoves, agroforestry, village woodlots, and industrial plantations—and have resisted involvement in the subject of the very roots of the forestry profession: forest management.

It is difficult to assess the effectiveness of participatory forest management interventions in Africa because the literature is so often concerned with the potential of co-management, rather than with its achievements. There are relatively few examples of well-developed projects, partly because the field is relatively new (Fisher, 1995). CBFM in Africa will require the development of working models tailored to the unique ecological, cultural and socio-economic characters of different agro-climatic zones. Experience in west Africa has shown that such models can serve as practical examples from which national and regional CBFM programs can emerge.

The approach to developing and implementing CBFM projects as presented below is based on field experience from Asia and west Africa.<sup>14</sup> Following a discussion of the basic principles of CBFM, a step-by-step approach is presented assuming that the selection of the forest for the CBFM intervention has been carried out in the context of a national/regional/local land use planning exercise outlined in Chapter Five.

### 6.1 Development of CBFM Models Linked to Enabling Issues

**Developing models of CBFM in isolation from the issues of an enabling legal framework and institutional reform may show short-term results but will not prove sustainable in the long run.** Policy dialogue and institutional reform should go hand-in-hand with the development and implementation of working models; ideally, the process should begin before the project is launched on the ground (See Annex I for discussion on enabling issues).

### 6.2 Principles of Successful Community-Based Forest Management

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<sup>14</sup> Like most sectors in developing countries, forestry has been driven by donor financing through ‘projects.’ The approach presented in this report is based on experiences from donor-financed projects on which the development of CBFM in Africa will continue to rely in the foreseeable future.

- ***Ecosystem Management.*** Activities under the forest management plan should be carried out in a manner that maintains the integrity of the forest ecosystem. In general, replacing natural forests with monoculture plantations is discouraged. However, the management of existing plantations, and the establishment of new ones, provide economic opportunities for CBFM, as long as the overall integrity of the forest ecosystem is not compromised.

***Natural and artificial forests in Toui-Kilibo, Benin***

*In the 50,000 hectare National Forest of Toui-Kilibo are teak and cashew plantations previously established by the government that cover less than 5% of the total forest area. Similar to many government-established plantations in Africa, there are problems. Lack of maintenance and illicit felling of teak and gathering of cashew nuts were revealed by the community during an assessment of the forest prior to development of the management plan. In response to this, the plantations were mapped, inventoried and handed over to the communities as part of the forest management plan which included a provision for additional teak plantations to be planted by the community. Although some of the natural forest would be removed to make room for new plantations, the overall integrity of the forest ecosystem was not compromised.*

- ***Multiple-use Management.*** In the past, forest management focused primarily on timber. Community-based forest management considers all forest products used by the community.
- ***Participatory Approach and Local Institutions.*** The participatory approach is premised on the assumption that local communities are capable of managing and conserving communal forests if they perceive genuine benefits as a result of their efforts and are granted legally-recognized user rights. This may require creation of new local institutions, or strengthening of existing ones, which communities control and recognize as representing their interests. Thus, capacity building of community-based organizations is a core function of CBFM, often assigned to an NGO that specializes in this work (see Annexes IV and V).
- ***Forest Users Contribute to Forest Maintenance.*** Forest management requires a continual investment to assure the resource base is maintained and managed on a sustainable basis. Those who benefit from management intervention should contribute labor or a portion of revenues from forest-based enterprises to assure that management activities such as enrichment planting and road maintenance are carried out according to the management plan.
- ***Sustained Yield.*** Harvesting levels should not exceed production levels. In forestry, production has traditionally been associated with tree growth and harvesting with levels of logging. In CBFM, all of the timber and non-timber forest products considered in the management plan are exploited so that the resource base is preserved, thereby assuring a

continual supply on a long-term basis. Growth estimates and inventories may be made during pilot projects, keeping in mind the history of most forests: colonial over-exploitation followed by erratic cutting policies that have affected both species composition and stand structure.

### **6.3 Step-by-step Approach to CBFM**

The following description of the steps to CBFM is basely largely on an approach developed by the Cooperative League of the United States of America, CLUSA, in Niger, Benin, and most recently in Zambia (see Annex V for details about CLUSA).

#### *6.3.1 Introduction of program and preparation*

The first step includes all activities leading up to the development of the management plan: initial meetings with villagers; establishment of village management structures; participatory demarcation, mapping and inventories; participatory community assessments; studies; action research; and training for villagers and foresters to prepare for the tasks of organizational development and enterprise management. The time required for this phase depends on the type of management (high or low commercial potential), size of the forest, level of interest of the community, and capacity of the management team to use participatory tools effectively. For a sizeable forest, preparation for a new management scheme may take six months or more.

**Participatory tools for forest management:** The development and implementation of community-based forest management programs will require a new set of tools for real involvement in preparation, implementation and monitoring of forest management plans. Institution building techniques are a key part of this process. Participatory tools for CBFM have been developed in Nepal and India to facilitate mapping, inventory and community assessments. As CBFM continues to evolve, practitioners need to develop techniques appropriate to the African context and to share ideas among regions, something that is not yet happening on a regular basis.

#### *6.3.2 Draft a forest management plan*

Following the preparatory phase, a forest management plan is drafted. The plan incorporates indigenous technical knowledge, results from scientific research, and experiences from other forest management interventions carried out in similar agro-climatic zones. (See Chapter 6.4 for more details on management plans).

### **LOCAL AND NATIONAL EXPERTS WORK TOGETHER TO CONSTRUCT FOREST MANAGEMENT PLANS IN BENIN**

*The approach used in Benin to formulate forest management plans is to assign technical and administrative issues to groups of local and national experts for each of the major activities undertaken by the management intervention. In the forest of Toui-Kilibo, for example, there were thirteen working groups including hunters, charcoal producers, pitsawyers, herders, honey producers, fishermen, and farmers (agriculture was not totally prohibited in the forest at the request of farmers). Terms of reference with well-defined meeting dates and deadlines for producing each group's contribution to the management plan were established. Results from all the groups were discussed, adopted, and incorporated into the final management plan, which included binding policies and technical guidelines for all.*

#### *6.3.3 Implement the forest management plan*

Implementation of the management plan is the responsibility of local communities in collaboration with the forestry department. The primary role of the government foresters is twofold: assure that the plan is adhered to, and provide technical assistance and training to user groups as needed. Yearly workplans are drafted based on the objectives of the management plan. Forest-based enterprises are created according to harvesting rates and carrying capacity as defined in the management plan.

#### *6.3.4 Monitoring and evaluation*

Day-to-day monitoring is carried out by the forestry department in collaboration with the local institutions charged with implementing the management plan. A comprehensive evaluation of the program should be carried out annually by the community, the forestry department, and a third party entity: NGO, PVO, or other. The monitoring and evaluation exercise will refer to indicators of sustainability and intermediate benchmarks of achievement described in the management plan. Conclusions and recommendations of monitoring and evaluation are considered in the process of formulating annual work plans.

## **6.4 The Forest Management Plan**

There is no universally accepted format for a forest management plan. The complexity of the plan depends on the nature of the management intervention and the area to be managed. Management plans in Meket, Ethiopia are simple agreements of a few pages to manage relatively small parcels of natural vegetation on degraded hillsides. In central Benin, management plans are voluminous and complex as they cover state forests up to 200,000 hectares in size. While relatively simple management plans may be drawn up in a month or two, more complex plans for larger forests may take several years to complete. The final version of the plan should be practical, clear, concise and written in a language comprehensible to the community charged with its implementation.

#### 6.4.1 Contents of a typical management plan

**Background Information.** Essential background information is generated from inventories, studies and community assessments. Details of the inventories or results of community assessments can be annexed if deemed necessary.

**Objectives.** What are the short-term and long-term objectives of the community regarding the management of the forest? Objectives should not be confused with specific policies. For example, an objective might be: Increased regeneration of woody species by controlled use of fire. The policy related to this objective might be: No fires in the forest between October 15 and June 15.

**Policies.** Policies are articulated through the rules and regulations governing the use and maintenance of the forest. They are discussed and developed by the people responsible for implementing and monitoring the forest management plan.

**Activities.** Specific responses to questions of who, when, where and what are detailed in annual work plans. The forest management plan provides a general outline of what is to be done to achieve objectives. In addition to user activities related to harvesting, support activities such as protection, enrichment planting, and road maintenance are discussed and described in the management plan.

**Figure 10: Enrichment Planting.** The CBFM program in Benin opted to carry out plantings of African mahogany (*Khaya senegalensis*) since the forests had been 'highgraded' with the most valuable timber already cut. Survival rate was 90% after three years.

**Administration.** How the plan will be administered and what institutions are chiefly responsible for managing implementation is described in this section. In Meket, Ethiopia, funeral organizations called gotts are responsible. In Niger groups legally known as Rural Markets (marches ruraux) now take responsibility for marketing and management functions. Associations of woodcutters play a major role in CBFN in Burkina Faso. In Benin, local NGOs are being tested. Forest Management Committees are responsible in India. Other questions of responsibility are answered. If grazing fees are to be paid, who collects them? Who will develop annual work plans? If a conflict arises, how will it be resolved? What are the accounting procedures forest management fund?

**Indicators of Sustainability.** Indicators of sustainability are formulated and added as points of reference for monitoring and evaluation. Sample indicators include: incidence of illegal cutting, incidence of

illegal grazing, level of participation by community, quality of financial management, level of contributions to forest management fund, presence of wildlife, regeneration of grasses and establishment of permanent plots for continuous monitoring, profitability analysis, and monitoring of governance systems as to democracy, inclusion and transparency.

**Maps.** Good maps are essential to a forest management plan. Maps can range in detail and quality from simple sketches done by the villagers to state-of-the-art maps produced with geographic information system (GIS) mapping equipment. Maps from photos used to delineate vegetation types and locations of fields in forests can be manipulated to coincide with georeferenced landmarks by using a simple GIS and global positioning equipment.

**Charts, Drawings, Graphs, Annexes.** The plan contains as many maps, charts, graphs, and drawings as necessary to facilitate its implementation. Experience has shown that villagers are capable of reading maps and aerial photographs, especially if they were directly involved in the development of the maps and ‘ground truthing’ exercises.

## 7. Summary of Results and Lessons Learned

### 7.1 Summary of Results

Despite much discussion of participatory approaches in forest management, Africa has relatively few cases of genuine inclusion of local communities in decision-making and participation in management of local forests. It is important to remember the factors constraining wider use of CBFM:

- a reluctance by African governments to allow communities to legally participate in forest management programs that some still view as the exclusive responsibility of the state;
- a lack of knowledge and understanding by governments, local communities, and donors about CBFM;
- a preference for afforestation (plantation) projects that are relatively simple to implement and require more inputs, thus providing more financial opportunity to forestry departments;
- an emphasis on conservation of wildlife in protected areas and national parks that does not consider Africa's vast forestlands that are not 'protected' to this degree; and
- alliances between private sector logging companies and government entities that ignore the rights of communities.

### First Generation Pilot Efforts in Africa

The small number of CBFM projects notwithstanding, valuable lessons are provided by several first generation pilot efforts initiated in the early 1980s, for example, pilot fuelwood management efforts in Niger (USAID) and Nazinon Forest in Burkina Faso (FAO). **These CBFM efforts demonstrate that sustainable fuelwood management is an economically viable activity that local communities are capable of implementing with a minimum of technical assistance and training.** Based on promising results from pilot efforts, a second generation of fuelwood management programs is now underway in Niger, Mali, Senegal, Burkina Faso, Benin and Chad. At many sites, the attitudes and practices of national foresters underwent considerable transformation as the possibilities for community management were successfully demonstrated.

### Africa trails Asia and Latin America in CBFM

Some of the more interesting case studies in CBFM in the world are in Asia (India and Nepal) and Latin America (Bolivia, Costa Rica, Mexico). Unfortunately, there has been little sharing of

information or networking with these countries by African practitioners. Annex III discusses some of these countries' CBFM efforts, which provide interesting parallels to the lessons learned to date in Africa.

**In the end, wherever CBFM is attempted in the world, the issues are strikingly similar. At the risk of over-simplifying complex and site-specific issues, much of CBFM's success or failure comes down to the nature and extent of the sharing of power and benefits between the government and the forest-dependent communities. Where enabling conditions are not met or only partially met, progress is impeded. Where this sharing is adequate and genuine, CBFM appears to be a most exciting approach across a great variety of political, cultural and physical environments.**

## **7.2 Lessons from First Generation of Community-Based Natural Forest Management Projects**

While some may argue that it is too early to draw major conclusions from the few CBFM projects implemented thus far in Africa, there is enough experience to date to open the debate on lessons learned to improve on future efforts. The following discussion presents a dozen lessons from experiences to date.

### *7.2.1 Secure legal recognition of citizens' rights to exploit forest resources*

A prerequisite to engaging local communities in forest management is that they must be recognized by the government as legal participants in the management of state forests, including design of the forest management plan. In Benin, this was precondition to financing of the *Projet de Gestion des Ressources Naturelles (PGRN)*. Following lengthy discussions with and resistance by the government, laws governing the use of the forests were finally changed, granting user-rights to local communities to engage in the exploitation of national forests according to an approved management plan.

### *7.2.2 Invest in the planning process to get quality forest management plans*

The amount of time and effort spent developing a quality forest management plan can determine whether the intervention will succeed or fail. Quality depends on two factors: (1) effort put into participatory appraisals (mapping, inventory, socio-economics) that provide factual information for the plan; and (2) the degree to which stakeholders (local experts, foresters, NGOs, traditional and state authorities) actively take part in structured meetings and workshops to develop sections of the management plan.

### **Community enforces agreement in Benin**

*Following the official adoption of the Forest Management Plan for the Forest of Tchaourou-Toui-Kilibo in Benin, villagers did not hesitate to defend themselves against irregularities committed by foresters. In one instance, a local forester was apprehended by the villagers and brought before the local authorities for authorizing illegal farming in the forest, outside of the area designated for agriculture in the forest management plan.*

#### *7.2.3 Modify laws and offer services to facilitate forest-based enterprises*

Ultimately, the success of CBFM is gauged by the capacity of forest-based enterprises to function efficiently and generate profits while they respect the policies of the management plan. Cumbersome laws and layers of bureaucracy that stand in the way of community-controlled harvesting, transportation and marketing of forest products have to undergo radical revision.<sup>15</sup> Secondly, offer timely, targeted support. **The success of forest-based enterprises depends on access to credit, level of literacy, and technical or business training opportunities.**

#### *7.2.4 Know the market, and know the cost of reaching it*

CBFM is more likely to succeed where a market exists for forest products with good access. Although the initial interest by communities may focus on traditional forest products that are highly marketable, such as fuelwood, charcoal, or timber, as the program evolves, markets may open for non-traditional forest products such as honey, gum, or incense. Distance to market is also crucial. For example, success of fuelwood enterprises depends to a large extent on demand in major urban centers. As one moves further away from the urban fuelwood markets, costs of transportation increase and profits decrease.

### **Selecting the right forest for CBFM in Mali**

*Based on positive results in Niger and Burkina-Faso, FAO initiated a fuelwood management project (GCP/MLI/019/NET) in Banamba about 150 kilometers from the major urban fuelwood market in Bamako. Despite much effort and willingness by the local population to develop a fuelwood enterprise, costs of fuel and truck maintenance were too high to compete with fuelwood businesses located closer to Bamako. During a mission carried out in 1990, it was suggested that the chances of success of the pilot project would have been much higher had the project been located in one of the natural forests outside of Bamako (Heermans, 1990).*

<sup>16</sup>

<sup>15</sup> In Benin, laws are being changed to give tax breaks to, and to facilitate transportation of, forest products marketed under government-approved management plans. Such changes have, in principle, been accepted by the government. However, considerable resistance by forest service agents who have benefited from the old system continues.

<sup>16</sup> In contrast to Mali, charcoal merchants in Sudan continue to import charcoal to Khartoum and nearby cities from more than 600 km to the south, the closest remaining charcoal-producing forests. In Tanzania, charcoal and other wood products come to coastal Dar es Salaam from Tabora deep in the interior of the country because of rail connections. Thus, cost is not a simple distance calculation but depends on the availability and relative price of transportation options.

### 7.2.5 *Get NGOs involved from pre-investment to post-project*

National and international NGOs are indispensable partners in forest management programs. NGOs play important roles in organizing meetings, workshops and participating in the development, implementation and monitoring of the management plan. National NGOs can provide a critical link between the government, local forest enterprises and cooperatives. International NGOs provide financing, training, technical assistance and participate in policy dialogue or advocacy concerning enabling conditions. As noted under 7.2.9 below, NGOs have been in the forefront of women's struggles for participation and benefit, and CBFM efforts need to use this expertise. (See Annex IV for discussion on NGOs in CBFM).

**Figure 11: Use of Local Expertise.** A traditional sawyer, national forestry agent and US project forester team up to carry out forestry inventory work in Toui-Kilibo, Benin. While the foresters lay transect lines and record data, the sawyer estimates standing volume for each tree.

### 7.2.6 *Include foresters in all phases of program*

The forestry department is the government agency ultimately responsible for the conservation and management of forests. Once outside assistance for CBFM has terminated, local communities will be left to face forestry departments on their own. Foresters can and will change hats from policemen to extension agent if given a minimum of support to carry out their duties, and if they are included in all steps in development and implementation of forest management plans. Failure to include government foresters is an invitation to sabotage.

### 7.2.7 *Make long-term commitments of external assistance*

Given the still-limited experience in CBFM interventions and the vagaries of the institutional environment within which CBFM practice is unfolding, long-term investments are required. When projects are halted abruptly before the enabling environment has been completely changed, or before models have been sufficiently tested and refined, the resulting interruption

can set back years of effort.<sup>17</sup> A minimum of ten years should be considered for a CBFM intervention, including enough time to monitor the programme and address enabling environment conditions.

#### *7.2.8 All things equal, select larger forests for economies of scale*

Costs associated with establishing a CBFM program do not increase linearly in proportion to the size of the managed area. Once the core management team is trained and in place, the cost of managing 50,000 hectares is not much greater than for 10,000 hectares. All else being equal, the intervention will have more impact if larger tracts are chosen. Moreover, as management teams gain more experience they will be able to expand to include more forests in a shorter timeframe.

#### *7.2.9 To ensure women's participation, work with women*

Management teams responsible for implementing CBFM must include women to assure that other women from participating communities attend meetings and are represented in all phases. Women in Africa are often reluctant to attend meetings directed by men or to speak their views openly in the presence of men. All efforts should be made to recruit women as foresters, rural development agents, PRA experts, loan program officers, and facilitators to focus on women's interests and assure that women participate. In these male-dominated positions, sensitizing and training men to advance women's equitable involvement and benefit is also crucial.

**CBFM programs offer a golden opportunity for women's access to remunerative activities, from harvesting forest products to management of wholesale and retail marketing. This opening exists only if women are allowed to participate in drafting the rules governing the use of the forest as defined in the management plan. Thus, rather than extend or worsen this inequity, CBFM and the institutions and enterprises it engenders offer new chances for women. Without NGOs advocating for women and their rights in the preparation process, this is unlikely to happen.**

#### *7.2.10 Reduce recurrent costs of management for financial sustainability*

Although initial costs may be subsidized through outside assistance, ultimately the community structures responsible for implementing the management plan will pay for recurrent costs of management through user fees. From the beginning of the intervention, recurrent costs should not exceed the level of capital available on an annual basis. Hard questions must be asked: Do we really need to pay forest guards if villagers are going to be responsible for controlling illegal activities? Are enrichment plantations necessary if there is an abundance of natural regeneration? Should the management fund pay for maintaining a forest road used by loggers, or should loggers pay for it? Long-term success of the management operation depends to a great degree on maintaining recurrent costs at a realistic level without compromising the integrity of the management plan.

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<sup>17</sup> In Benin, project financing was abruptly halted by the World Bank one year after the signing of the country's first forest management plan and in the middle of developing a management plan for another forest. This caused tremendous problems with the implementation of the program and a serious setback with village groups who were beginning to show signs of trust that the forestry department was changing.

### ***Learning to keep it simple in Guesselbodi, Niger***

*The management strategy of the Guesselbodi Forest in Niger has been criticized for setting a precedent of costly management activities that could not be supported by the forest management fund. Many of the activities such as hiring guards, building soil conservation structures, and enrichment planting have since been eliminated in the next generation of fuelwood management interventions and reduced to the cheapest, most effective practices. At present, the silvicultural prescription is uncomplicated: cut trees for fuelwood according to predetermined diameter limits for each species; spread the smaller branches on the ground for mulch; and protect the area from livestock for at least one year. The approach is simple, inexpensive, and effective.*

**Figure 12: Partners in Simple Silviculture Prescriptions.** Low-cost techniques minimize investments for long-term financial viability. At Guesselbodi Forest in Niger, branches are spread as much after firewood harvesting. This attracts termites whose use of the material improves physical properties of the soil, resulting in natural regeneration of grasses and trees.

#### *7.2.11 Associate herders and other marginalized groups in the program*

Two of the most difficult problems facing forest managers in west Africa are the movement of herds in the forest and conflicts between herders and farmers. In view of failed programs, broken agreements, and abuse inflicted on herders by foresters and other outsiders, herders are reluctant even to attend meetings where foresters are present unless rural development agents from their ethnic group participate. However, once mutual trust is established, herders are willing to participate in forest management programs and are not opposed to paying grazing fees for secure access to pasture. The lesson applies not only to herders but to all marginalized groups: use members of these groups as rural facilitators and make sure they are represented on committees to assure their involvement in all phases of management.

### ***Herders agree to pay for grazing permits in Benin***

*The introduction of grazing permits is being tested in Benin. Fulani herders are not opposed to grazing permits as long as they have guaranteed rights to designated grazing areas. Revenues generated from the grazing permits are deposited in the forest management fund to defray recurrent costs of management including pasture improvement and development of water points. The process of developing and implementing a management plan is also an opportunity to bring farmers and herders together to resolve conflicts between the two groups. Moreover, the management process is an opportunity for veterinarian and livestock extension agents to contact herders regarding health issues and vaccination requirements. Grazing permits are issued only to herders who have properly vaccinated their animals.*

#### *7.2.12 Work with available knowledge and keep on learning by doing*

In the August 1996 Journal of Forestry, Jack Ward Thomas expresses frustration when he said: “In our search for scientifically derived definitions for such terms as ecosystem management, we spin in circles of never-ending debate and rhetoric. At some point, can we say, ‘this makes sense or it doesn’t’” (Thomas, 1996). In this day of information overload, foresters are more reluctant to make difficult decisions due to lack of data, statistics, or studies. If we only had that last bit of information, then we could make a better decision.

In Care of the Soul Thomas Moore observes, “We have replaced wisdom with information” (Moore, 1992). In Africa where wisdom of the elders is sacred, CBFM offers an opportunity to get back to basics, resist the snare of information overload, and rely more on informed common sense. This is not to imply that forest management should be conducted in the absence of GIS, accurate inventories, or scientific research; rather that forest managers must manage the technology and avoid “spinning in circles of never-ending debate.” Inadequate data must not be the excuse for inaction in African forests, because the costs of not acting decisively are known all too well.

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## **Annex I**

### **Enabling Conditions**

*This section discusses some of the enabling conditions necessary for CBFM to work. While all of these conditions are crucial to CBFM, it is important to recognize that differences specific to country, culture, ecosystem and CBFM sites will make the interpretation and application of them anything but standard.*

**Improved legal frameworks.** It may seem self-evident that favorable legal and regulatory environments are needed to enable CBFM; however, key conditions are missing in many countries. At a minimum, CBFM requires that individuals have the right of association to form user groups, group enterprises, partnerships, and extragovernmental management units with full legal sanction to carry out their self-mandated tasks. It also requires clear tenurial rights of such groups to negotiate with the government for exclusive use of forest resources and for long-term contractual revenue sharing, as discussed just below. A third major legal requirement is that forestry regulations permit scientific and sustainable exploitation of resources. This last mentioned requirement is often not the case when regulations have persisted wholesale from the colonial era.

Lack of these basic conditions need not prevent implementation of pilot projects, as early CBFM successes in the 1980s under Niger's highly unfavorable legal context amply demonstrate. In fact, one useful aspect of these pilot projects was to win case-specific waivers to carry out experimentation that later could be used to bolster arguments for systematic legal changes. However, sustainable CBFM cannot depend on waivers granted to prominent donors. It requires promulgation of constitutional or legislative texts that guarantee these rights and regulatory possibilities, and then an informed citizenry that understands and feels entitled to exercise these options (Otto and Elbow, 1994).

**Tenure.** "Laws and policies that ignore existing rights and management systems and promote tenurial insecurity ignore the obvious: rational human beings, regardless of their status or education level, are unlikely to invest labor and resources in sustainable management without some assurance that their heirs will receive the benefits...." (Lynch and Talbott, 1995).

The thorny issues of tenure and use rights are at the heart of the problems in Africa's forests. Forest communities, who once guarded and managed forests by traditional law and custom, are now legally considered outsiders in their own territory. In order for CBFM to work, governments must recognize forest communities' user rights. This will often require changing the forestry code. For example in Benin, as explained in Annex II, laws were changed as a prerequisite to CBFM financing from the World Bank.

**Participation versus genuine benefits.** The vocabulary of development, like the jargon of any field, continually takes up new buzz words. With time they are co-opted and trivialized. This is the fate of 'participation' which now connotes any level of citizen involvement regardless of who actually benefits or controls the resource in question. Some natural resources management

programs suggest that local communities ‘participate’ by helping with mapping and other pre-investment preparation, but make no mention of their sharing in the income derived.

*The participation of forest-dwelling citizens in the managed use of forest resources has often lead to falsehoods, fines and physical abuse by government agents. Thus, one might image a revision to “Arnstein’s ladder of citizen participation” which starts with a low of 1 for manipulation, by adding null and negative values for lying and violence:*

<b>Revised Arnstein’s Ladder of Citizen Participation</b>	
8	Citizen control
7	Delegated powers
6	Partnership
5	Placation
4	Consultation
3	Informing
2	Therapy
1	Manipulation
0	Lying
-10	Violence to forest dwellers

(Adopted from Fisher, 1995)

For CBFM to work, programs must reach beyond tokenism to higher levels of citizen empowerment. Local communities must become recipients of genuine benefits from all forest-based economic activities including the most lucrative: timber and tourism. NTFPs are certainly valued for personal consumption and local sale, but are not usually as financially interesting as timber or safari income derived from exploitation of forested lands.

The limited level of rights accorded to forest communities is demonstrated by this recent report from Ghana. “As from April 1998, residents and communities living in and around Ghana’s forest reserve areas are to be given legal backing in recognition of their rights to access allowable limits of some forest products” (ITTO, 1998).

The key terms are “allowable” and “some.” In other words, communities who guarded these forests for centuries have rights to some of products but not all. Even for NTFPs, villagers are obliged to walk long distances to obtain permits. Then there are cases where government is simply not willing to negotiate with forest communities for genuine benefits or shared authority over local resources, leaving experts to elaborate concepts like BATNA, best alternative to a negotiated agreement, to offer local stakeholders for their ‘participation’ (Swartzendruber, 1998).

**Access to credit.** The availability of credit is essential to small forest-based enterprises. Sometimes only small amounts are needed, perhaps less than \$US100, to buy tools or improved beehives. Larger enterprises such as mobile sawmills naturally require more capital investment. Until recently, rural resource users had little or no possibility of obtaining credit, except from local money lenders at usurious interest rates. Commercial banks have very little interest in servicing rural credit clients who lack of business-like practices and whose untitled land is not acceptable as collateral.

The arrival of microfinance schemes in Africa in the 1990s is rapidly improving availability of investment credit for small-scale entrepreneurs. Unfortunately for rural populations, early microfinance focus has been on the relatively fast turnover enterprises in the more accessible urban and peri-urban markets. However, donors and microfinance implementation agencies are increasingly turning attention to rural areas and are attempting to adapt their methodology to fit longer-term economic cycles typical of agrarian activities. Whatever the source, investment credit on affordable terms is crucial for forest-related businesses at the economic core of CBFM.

**Improved Marketing.** In most African countries markets for forest products do not operate efficiently nor do they provide buyers with adequate products at realistic prices. Common constraints in marketing are: poor product quality, limited product choices, excessive or inadequate competition, excessive government influence, inadequate market information, reduced marketing efficiency, excessive demand or supply, inefficient distribution systems and inadequate training of management and staff. (Bourke, 1991).

One reason for the success of woodland management around urban centers in the West African Sahel is the availability of healthy markets within reasonable distance on good forest-city roads.<sup>18</sup> Most natural forests will not be so fortunate in the proximity of markets, and will need to develop more sophisticated marketing plans. CBFM efforts need to call on experts in small business management and marketing in order to become profitable in the long run. To take advantage of the high potential in domestic and foreign markets will require training, research, and leaders with business skills. An exciting marketing option that CBFM programs in Africa have yet to explore fully is the potential for export of certified forestry products, as discussed in Annex III.

**Decentralized authority.**<sup>19</sup> While decentralization is often used as a generic term for transfer of authority or responsibility beyond central government, different levels of this process can be noted. Two that are important for CBFM are deconcentration and delegation. Deconcentration connotes handing over of some authority to lower levels within centralized structures, such as allowing provincial Forest Service officials more decision-making authority over forests in their province, or granting district administrative units the authority to adjudicate disputes that heretofore would have required central approval. Delegation refers to transfer of functions to entities outside regular structures, such as parastatals or, in the case of CBNFM, to a local management unit.

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<sup>18</sup> Some of World Bank's efforts to replace firewood and charcoal with non-renewable, imported energy sources such as natural gas or kerosene through subsidies must be reviewed. This attempt to conserve forests may actually do more harm than good in the long run. As long as there is a healthy market for firewood, rural communities will work to conserve forest productivity because of added income and jobs it offers. Once this market disappears, as would occur if imported subsidized fuels replaced domestic biofuels, the incentive to manage/conservate woodlands for fuel supply is no longer there: another classic example of 'use it or lose it.'

<sup>19</sup> It may be interesting to note that while African governments are urged to accept decentralization, democracy and participative approaches, US lags behind in allowing communities to participate in decision-making. A survey of forest managers in US showed that most preferred to see collaborative planning as an advisory function, with the Forest Service retaining primary control over final decisions. (Selin, Steve, et al. JOF, May 1997). "We do it in Africa and spend millions in governance and democracy issues, but, in reality, the idea has not been accepted in US. Natural resource decision making at the national level has failed to include the perspectives and ideas of local communities effectively barring them from the political process and frustrating their attempts at creative problem solving..." (1998, American Forests, Gray, G. Vice President, Forest Policy for American Forests)

Despite inheriting extremely centralized governance systems at independence, and having limited human or financial resources to experiment with decentralization, many African governments are struggling toward the distribution of authority beyond the capital city. In a few cases this has even reached the advanced stage called devolution: empowering somewhat autonomous subnational government units, such as municipalities and rural communities (*communes rurales*) by ceding them some control over some tax revenues and other resources.

CBFM is based on government granting exclusive exploitation rights of forest products to local communities as long as they comply with terms and conditions as set forth in a mutually agreed Forest Management Plan. The legal framework for user groups' rights are cited above; however, it is also vital that the state deconcentrate significant authority to government entities at provincial and local levels. For instance, in the case of a dispute in the interpretation of agreements, or in the exercise of user group rights, there must be readily available, legally sanctioned authority to make decisions that resolve such conflicts as close to the CBFM site as possible.

**Corruption in the forestry sector.** Development organizations and governments are reluctant to talk about a major problem threatening the future of African forests—rampant corruption. In a recent regional workshop in Cameroon, an official from an international conservation NGO reportedly stated, “It is useful to use positive terms and avoid provocative words such as ‘poverty’ and ‘corruption’” (Swartzendruber, 1998).

This problem is too serious to be tactfully ignored or reduced to euphemisms, in forestry as well as every other area of public life, wherever it occurs. Yet the forestry sector is particularly vulnerable as one observer notes: “...forestry activities take place in remote areas, away from the press, the public and official scrutiny...Wood in public forestlands is valuable but uninventoried ...[thus] forestry activities offer substantial discretionary power to corrupt governmental officials.”(Contreras-Hermosilla, 1997)

CBFM itself offers unique opportunities to address corruption. CBFM by its nature involves forest surveillance and implementation of detailed and exclusive plans, unlawful practices are evident to stakeholders and can be dealt with on-site. A study of democracy and governance issues in Benin included an examination of CBFM practices. After visiting Toui-Kilibo the author noted:

“These rules provide for transparency. The rules are clear and legitimate because they have been jointly developed, not unilaterally imposed. The stakes are known to all parties, as are the mechanisms by which resources will be mobilized to ensure access and harvest controls” (Thomson et al., 1997).

Once rules are known to all, the opportunity for corruption lessens and communities will ensure that process is respected.

**Reform of national forestry services.** Across Africa forestry services have long been viewed with distrust or worse by the rural population who claim to be victims of abuse and extortion by

bullying forestry agents. Reputations at national levels are equally tarnished, as this comment indicates: “When the forestry institution has not changed, any resource that comes into its hands—regardless of its intended purpose—will be turned to its own institutionally defined end” (Dove, 1995).

A basic problem is the dysfunctional nature of forestry services in Africa. The list of problems seems sadly similar in country after country: insufficient personnel, skimpy budgets, corruption at all levels, lack of training in CBFM, and the para-military status and attitude of agents, among others. If government foresters are to take on role as viable partners in CBFM, there is an unmistakable need to address all of these issues.

While reforming forestry services will be difficult, one approach that cannot be condoned is the donor-driven creation of parallel structures to avoid the gridlock of official bureaucracies. In forestry, such semi-autonomous structures called Forestry Commissions (*Offices* in French) eventually fall prey to the same forces that make forestry services dysfunctional, leaving countries with a more bloated bureaucracy. Better not to side-step the core issues in the first place, avoid the parallel structures trap, and concentrate on assisting Forestry Services to become the efficient, well-educated, CBFM-oriented, self-reliant technical support units that African countries need.

### **Capacity building activities to assist Forestry Services:**

**Training.** Foresters in Africa typically are educated in agricultural programs, which put little focus on forest management. In fact, there are no broadly used management texts for training African foresters. As foresters’ roles change from policemen to extension specialists, they need technical training to prepare them as partners in CBFM. And they need many other skills as well in conflict mitigation, operational planning, facilitation of meetings, participatory monitoring and evaluation methods, and time management, among other competencies.

**Study tours.** One of the best learning experiences available to foresters for future CBFM involvement is study tours, i.e., send African foresters to CBFM sites within Africa and to other areas to see first hand how it is done. Recently, two foresters from Ethiopia attended a three-week training in Joint Forest Management in India. The experience convinced these skeptical officials that Ethiopia should also allow local communities to participate in forests, an idea unheard of before this study tour.

**Figure 13: Farmer-to-farmer Visits.** On the steep, treeless mountain slopes of Meket, Ethiopia, farmers from north Gondar learn how local farmers secured land use rights through their customary funeral associations (*gotts*). Under this management scheme farmers have planted Eucalyptus for eventual sales of construction poles; meanwhile, the marketing of naturally regenerating grasses pays salaries for guards.

**Increase budgets.** Across-the-board budget support is not as effective as supporting housing for foresters in forest zones and other costs that will favor CBFM. These contributions to the budget could and should come as a percentage contribution of the revenue from legal forest transactions, thus encouraging foresters to support such legitimate forest-based businesses.

**Research for CBFM.** As more CBFM projects are attempted in diverse environments, more research is needed as well. To date, the level of research in CBFM has been quite limited, and what has been done is often available only as ‘fugitive literature’ in personal collections and project archives. Limited forestry research resources have historically dealt with plantation forestry and exotic species, rather than natural forests and their management. CBFM research is also hampered by the weakness of national research institutions. CBFM efforts will have to include training and capacity building to develop the in-country and regional competencies to support basic research. On the methodology side is the need for applied research to improve participatory mapping and inventory techniques, and to develop cost-effective post-project monitoring and guidance services that help maintain CBNFM systems in the long run.

**Forestry Research.** Research subjects that have emerged from various CBFM efforts embrace both technical issues and management methodology. The technical list includes research on permanent growth plots, improved sawing techniques, added value of forest products, improved silvicultural applications and genetically improved seed of valuable timber species. On the methodology side is the need for applied research to improve participatory mapping and inventory methods, and to develop cost-effective post-project monitoring and guidance services that help maintain CBNFM systems in the long run.

## Annex II

# Case Study of Toui-Kilibo Forest in Benin

The following case study is based on work carried out from 1992 to present in the National Forest of Toui-Kilibo, Benin by the Forest Management Unit, FMU, of the multi-donor-financed Natural Resource Management Project, NRMP. The national forest of Toui-Kilibo, located in the center of the country, borders Nigeria and covers an area of approximately 49,000 ha.

## Context

In 1989, following 17 years of a Marxist-Leninist regime, the Government of Benin, GOB, promoted a series of sweeping reforms in order to lessen the role of the government in the economy, promote the private sector, and conserve the environment. In response to this, the World Bank initiated several actions to address the government's environmental concerns. The Bank's strategy was threefold: develop an Environmental Action Plan, pass new forestry legislation, and participate in the financing of the NRMP. The NRMP officially began in October 1992 with support provided by four development partners: the World Bank, the CDF (*Caisse Française de Développement*), GTZ (*Gesellschaft für Technische Zusammenarbeit*), and the United Nations Development Programme, UNDP. The project focused on four activities: wildlife management/ecotourism, watershed management, forest policy and forest management.

Benin's 46 national forests, covering 1,303,043 hectares, were established by the French colonial government based on unilateral decisions taken in 1942-43 to create state forests to protect (and exploit) the country's major watersheds. The legislation justifying these actions—the colonial forestry code—empowered the inexperienced forest service to relocate all villages in the newly demarcated forests and enforce the code which essentially forbade local populations from entering the forest reserve to hunt, cut wood, graze and fish. In some cases, 'traditional usage rights' were accorded to nearby villages allowing people to gather fruits, dead wood and medicinal plants. Prior to the colonial era, many of these forests were governed by local chiefs who established usage rights for local villages that were enforced by customary law.

With independence came a long period of rampant corruption and mismanagement by forest agents who viewed the forests as their own fiefdoms, accepting bribes in exchange for cutting rights, farm land, grazing rights, etc. Villagers who failed to pay the bribes or were caught exploiting forest resources faced stiff fines and/or imprisonment. "In consequence, they (foresters) presided over the gradual degradation and destruction of the renewables (natural resources) in their care, profiting the while, rather than seeking to defend them against uses defined formally as illegal but seen as quite legitimate by the full range of users" (Thomson et al., 1997).

### *Establishment of the Forest Management Unit, Parakou*

The FMU based in Parakou as a component of the NRMP was established with assistance from the World Bank in 1990. The main objective of the FMU is to test methods of participatory management in different forest types in collaboration with local village communities in order to guarantee a sustainable protection of the forests. The overall strategy adopted by the FMU is to focus on three national forests that will serve as models to be replicated in other national and protected forests. The first forest undertaken by the FMU was Toui-Kilibo located about 100 kilometers south of Parakou.

In 1992, an international forestry consultant was recruited by the GOB to establish the FMU adjacent to the Forest Service Office in Parakou. Work began in September of the same year and continued until August 1998 when financing of the FMU was abruptly cut-off by the World Bank for reasons that are not clear.

### *The Initial Situation*

At the outset of the NRMP, the situation in the forests throughout the country was characterized by uncontrolled cutting, grazing, hunting and farming. According to one study carried out by the Food and Agriculture Organization, FAO, by comparing aerial photos over a period of time, it was estimated that the country was losing approximately 100,000 hectares of natural forests a year, one of the highest rates of deforestation in West Africa. Rampant deforestation notwithstanding, it is estimated that more than 50% of Benin remains covered by natural forests, ranging from bush savannah in the north to wooded savannah in the center and south.

The ongoing destruction of the country's forests can be traced to the same agency responsible for protecting and conserving the forests—the Direction of Forests and Natural Resources, DFRN. Like many forest departments in Africa, the DFRN is not able to carry out its mandate. It lacks funding, trained personnel, management skills, and a coherent mandate, while also suffering from inadequate laws, red tape, low morale, rampant corruption and deep distrust by the rural population.

Because of their para-military status throughout West African countries colonized by France, foresters have an authoritative status on a par with gendarmes and custom agents. The abuse of authority is the basis for the mistrust and enmity existing between foresters and the rural populations. At the root of the problem is the colonial forest code that empowers foresters to threaten, extort and abuse villagers whenever they need cash. In addition, many foresters continue to collaborate with local woodcutters to systematically highgrade (cut) the biggest and best trees, leading to a serious decline of several valuable hardwood species such as iroko and African mahogany.

Ironically, the most serious deforestation problems in Benin are evident in the national gazetted forests supposedly controlled by the forest service. In other forests outside of the gazetted forests and still under traditional control, one often finds that deforestation is less of a problem.

### *Time for Change*

In view of the archaic colonial laws at the root of the problem, nothing in the forests would change without first changing the laws. A condition precedent to the financing of the NRMP was the development of new forestry legislation. The new laws (Loi 93/009 du 2 juillet 1993 portant régime des forêts au Bénin) were adopted by the legislature following a lengthy process of discussion and heated debates. The World Bank supported the development of the legislation through technical assistance and limited financial incentives to the individuals who participated in the process.

The most significant changes of the new laws pertain to the management of the national forests. In essence, individuals, groups of individuals or cooperatives are ceded user-rights of national forests as long as they adhere to the policies and practices prescribed by a forest management plan that serves as a contract between the government and participating communities.

Following the adoption of the new laws, the FMU developed a three-phased approach to be tested in several national forests: Toui-Kilibo, l'Ouémé Supérieur and Dogon Kétou. The first phase encompasses all activities leading up to the development of the management plan. These include: forest inventory and mapping, training of foresters, training of villagers, socio-economic study, extension, construction and equipping of forestry posts, action research, and the identification and organization of local forest user groups. The second phase is the actual development of the forest management plan done collectively by potential local user groups, foresters and national experts. Once the management plan is discussed, adopted and signed by the GOB and representatives of the local participating communities, the last phase begins—implementation.

### *The Outcome*

After much discussion, the final draft of the forest management plan for Toui-Kilibo was adopted and signed by the Minister of Rural Development in November 1996 in the Toui-Kilibo Forest on national television. The signing of the management plan at Toui-Kilibo symbolizes a monumental change in the way forestry will be practiced in Benin and perhaps other countries in West Africa that face similar environmental problems. The GOB recognizes the rights of local user groups to exploit the country's forest resources as long as they respect the terms and conditions of a forest management plan which is a legally binding contract. Under this new system, the role of the forester is to offer technical advice, assure that the management plan is implemented correctly and resolve problems that arise during implementation. The rules of the game are clear to all parties because they were drawn up and adopted in the presence of all stakeholders including: local foresters, representatives from the Ministry, and local experts for each of the activities to be undertaken in the management plan such as woodcutters, hunters, herders, charcoal producers and beekeepers, among others.

While it is too early to determine whether this approach is sustainable, the potential future impact is important in terms of reversing an ongoing trend of deforestation and improving the lives of the rural population by providing sources of full and part-time employment through locally-controlled forest industries. Following the signing of the management plan at Toui-Kilibo, 135 local user groups expressed an interest in organizing themselves as cooperatives or partnerships

to establish forest-based industries ranging from sawing timber with modern mobile sawmills (this has already begun) to gathering medicinal plants.

**Figure 14: Training for Sawyers.** At Toui-Kilibo Forest, Benin, Where the CBFN project introduced improved hives that reduce environmental impact, increase yields, and ease extraction of this vital non-timber forest product.

Given the amount of effort and financial resources put into the initial phase of changing the laws and developing the management plan, it is essential, at this critical stage, that the same effort be forthcoming to assure that the plans are implemented and monitored correctly at Toui-Kilibo and the other forests undertaken by the FMU. If this happens, it is quite possible that the Benin experience could be replicated in other African countries experiencing similar post-colonial disorder in their forests.

## Lessons Learned From Benin

- **Laws must change.** Given the resistance by many to change—especially those who continued to prosper by the existing laws—it is not obvious that the laws would have been changed in a meaningful way unless attached to a carrot, the financing of the NRMP as a condition precedent.
- **Changing laws does not change behavior.** In spite of the new laws, many foresters continue to act as they have in the past. However, by reforming the laws, the process of change has begun and old habits are slowly giving way especially amongst the new generation of foresters. Some of the same foresters who were most adamantly opposed to the work of the FMU in 1992 are amongst the strongest supporters of the participatory approach today. While those who enriched themselves under the former laws will

certainly lose income, younger foresters are open to the new approach and are beginning to plant seeds for a new relationship with the rural populations. While enforcement has not totally disappeared from the forester's role, in principle, the bulk of enforcement will be carried out by the communities who participated in the development of the management plan.

- **Crucial role of NGOs.** One of the keys to success at Toui-Kilibo was the participation of CLUSA, an international NGO specializing in rural organizing (*organisation paysanne*) and strengthening cooperatives. It is often assumed in projects that the expertise required to effectively organize and dialogue with local communities can be learned on-the-job. This is not the case. Effective communication and organizational skills are part of a separate field of expertise that requires the input from trained and experienced people who have the necessary skills to develop this important component of the program. This is especially true in the forestry sector in Africa where years of abuse by foresters have created an enormous distrust towards this agency on the part of the population.
- **Restructuring of Forest Service as a condition for long-term success.** While community-based resource management transfers the onus of managing the forests from the forest service to local communities, the forest service still has a major role to play to provide technical assistance and assure that the management plan is implemented properly. Given the drastic change that the new approach represents, success in the future will require a total reorganization of Benin's forest service. The focus of the reorganization should be on training and increased financing to assure that foresters are properly housed and equipped to work in forest communities. The creation of a national forestry fund replenished by a percentage of all revenues generated by the various forest industries is worth considering. This should not, however, be implemented before a restructuring of the forest service takes place.
- **Need for long-term view by donors.** The abrupt rupture of financing by the World Bank in August of 1998 caused a serious setback to the program. Mutual trust between the FMU and communities established over six years deteriorated when villagers learned that the FMU would no longer provide support during the implementation of the management plan. Recalcitrant foresters who had criticized the approach from the beginning were able to say, "I told you so..."
- Community-based forest management is still in its nascent stage. Donors who are willing to engage in the process should commit for at least ten years: the time necessary to develop, implement, monitor and evaluate a management plan.

**Annex III**  
**Africa to Build on Experiences From Other Continents**

**This section takes a brief look at some of the CBFM experiences in Asia and Latin America, principally India and Mexico. This is not a compendium of every known experience with CBFM, since only a few countries' efforts are considered. The aim here is to describe some of the approaches used elsewhere and to compare lessons of these attempts with some CBFM experiences in Africa.**

**One immediate similarity across all regions is the repeated recognition that much more has been written about CBFM's promise than about its actual results. This is partly because of the global newness of an approach, and partly because CBFM deals with ecosystems for which definitive assessments of impact cannot be obtained in a short time span. It seems this paucity of results-oriented documentation may also be due to the relatively low level of resources allotted to developing adequate evaluation techniques, and using them in a manner likely to produce comparable findings.**

Other similarities concern the range of environments managed under the term 'forests', from dense canopied forests to treeless bamboo forests to degraded scrublands, and the range of forest resources that are often valued as much or more than the trees themselves. Still another commonality is the seemingly universal struggle between centralized governments on the one hand, who unilaterally alter resource access by preventing local populations from exercising customary use rights, and these local populations on the other, who inevitably violate these externally-imposed restrictions in their quest for survival.

**Asia.** In Asia as elsewhere, colonization by western powers that had begun centuries earlier as mercantile and extractive endeavors intensified in the 1800s, reaching further into rural societies

and demanding more natural resources for foreigners, to the detriment of local users. As one source notes, “Centuries of established and functional tenurial systems were usurped, often with the single stroke of a colonial administrator’s pen” (Lynch and Talbott, 1995).

Under British administration in Sri Lanka and India, most lands were vested in the Crown including ‘wastelands’ which meant forests and other lands not permanently settled. Dutch colonial laws in nineteenth century Indonesia repeatedly tightened limitations on customary property rights to allow for colonialists’ expansion. In the Philippines just a century ago, the US colonial government perpetuated expropriation of vast tracts of land that the Spanish had first perpetrated by negating customary non-titled ownership.

Foreshadowing the behavior of post-independence leaders and populations in other countries, the King of Thailand in 1901 began using European concepts of individual ownership to deny rights to traditional land occupants, eventually leading to massive and chaotic farmer migration into previously forested areas. When decolonization came in the aftermath of World War II, newly independent governments inherited and retained colonial law and mentality regarding ownership and access to forests and other ‘wastelands’, failing to recognize or value community based land management systems. In some cases, such as previously isolated Nepal and timber-rich Indonesia, forest nationalization in the modern era actually has caused more alienation and loss of access for resource users.

On the bright side, many countries around the world are experimenting with some sort of CBFM to find ways out of this grim cycle of environmental destruction and arrested development. Terms used for CBFM activities in Asia, sometimes lumped together as ‘collaborative management of forests’ range from Joint Forest Management, JFM, in India and some southeast Asia countries to Community Forestry in Nepal. Social Forestry is the collective term for several different approaches in the Philippines.

In India JFM is mostly focused on restoration of degraded lands, some 500,000 hectares of which are under shared management regimes. Although arrangements differ considerably across India’s states, common characteristics of JFM include negotiated agreements between government forest departments and local people organized into Forest Protection Committees, shared benefits, and a retention of major control by the forestry department.

Opinions vary on the viability and basic equality of the JFM approach. Critics point to its slow progress in access control, i.e., communities’ right to exclude non-participants, its limited application to forests of greater commercial value, excessive harvesting and marketing costs due to monopolistic control by government or parastatal agencies, and the inequitable distribution of benefits among local stakeholders. At the same time, it appears that JFM has significantly increased the net worth, revenues and biological status of natural forests, some of which were thought to be beyond recovery. JFM practitioners have attempted to develop inclusive institutions even as they must struggle to overcome constraints of policy, practice and attitude of government and recalcitrant forest department (Hill and Shield, 1998).

In Nepal, break-through legislation in 1993 opened the way to expanded forest management agreements with local user groups. These agreements are often set up in such a way that they

explicitly recognize indigenous management systems, and do not require sharing benefits from small forested areas with the forest department.

In the Philippines, two-thirds of the land is designated public forest. The long-standing Integrated Social Forestry Programme has worked to give secure tenure to forest occupants through ‘communal forest stewardship agreements’ which lease sizeable areas to communities. The communities in turn determine land uses and responsibility for environmental protection.

**Latin America.** The leading country of the region in CBFM, in fact, the global leader by some statistics, is Mexico. Information for this section comes from a paper on “Stewardship of Mexico’s Community Forests” by Justin R. Ward and Yuri Bihun.

“Mexico has a greater proportion of forest lands under community-based management than any other country in the world. Forest commodities account for approximately 40 percent of Mexico’s primary wood production and 15 percent of the country’s industrial processing of timber” (Ward and Bihun, 1998).

Some 80% of Mexico’s forests now belong to about 8,000 *comunidades* or *ejidos* often with high levels of indigenous populations. Where community forestry is not firmly established, such as the southern state of Chiapas which lacks government support for CBFM, the result has been widespread deforestation and destruction of tropical rainforests. Also, *ejidos* often lack equipment, infrastructure and knowledge to operate efficiently and so the Mexican timber industry competes poorly internationally.

Not unlike the legal environment for forestry in many African countries, Mexican policy in the past has not been supportive of sustained forestry management. The 1980s saw a shift in favor of well managed forests that continues today. Some key milestones in this positive transition were the ending of 30 years of parastatal control over timber concessions, removal of the Mexican government’s technical services from control over forestry management which allowed private specialists to operate, heavy restrictions on uncontrolled logging, and prohibition of removing natural forest vegetation for the purpose of monoculture plantations, among others. Environmental issues including forestry policy remain hot topics on the national agenda.

One association created in the 1980s now counts 51 *ejidos* as members with some 500,000 hectares of forests. Management plans now go beyond timber to include NTFPs like honey, chicle and wildlife. Local foresters licensed by the government supervise forest harvesting for sustained yields. Overdependence on a few prized tree species of cedar and mahogany limits profitability, as the association searches for markets for lesser known and underutilized species.

One bright spot for Mexican CBFM is the advent of certification of forests and forest products under the Forestry Stewardship Council, an international system founded in the 1990s that provides marketing opportunities for well-managed community forest enterprises in Mexico and around the world. FSC principles and criteria recognize economic, social and environmental considerations. FSC-endorsed community forests have begun to find overseas markets for certified products, from mahogany lumber to lump oak charcoal. Certification has yet to pay off in a big way for participating communities who are nevertheless watching the markets grow steadily in Europe and North America.

**Summary.** The findings on constraints and the recommendations for remedies in the CBFM literature on Asia and Latin America resonate well with lessons from Africa. Commonly identified inhibiting factors are insecure access to resources, imposed policies, the lack of adequate incentives at the user level, and rigidity in forest departments. Suggested remedies include legislative and regulatory guarantees of significant local involvement in decisions, secure control over resources access, and dependable, genuine benefits for local resource users in exchange for protection and enhancement of natural forests.

Mexico's recent entry into the new world of certified forest products is an exciting possibility for African countries with exportable timber. Markets are developing, especially in Europe, for environmentally correct products. For African countries struggling to gain market access, the cachet of certification could be a boost to both exports and the CBFM movement. To the knowledge of the authors, the only certified products program in Africa is in the Western Region of Zambia. Attempts at certification in other countries, like Gabon, have, for the most part failed.

## Annex IV

# NGOs in CBFM

In this section participation of NGOs in CBFM is considered. After a brief discussion of NGO development and NGO typology, attention turns to the general and specific roles NGOs play in CBFM. Also analyzed is the participation African NGOs might provide in the future, and the capacity building needed to facilitate this participation.

As discussed in the main body of this paper and in Annex I, a variety of different institutional elements are needed to make CBFM work. Some of these are obvious like Forestry Services and private enterprises working in the forestry sector. Some are created for a particular CBFM effort, i.e., the project management unit that brings outside expertise to the scene. Some that may or may not previously exist will need to be set in place and strengthened to play important roles, such as local organizations empowered by communities to participate in CBFM.

In many parts of Africa, the nongovernmental sector is cited as one of the fastest growing elements of society and of the national economy. This rapid growth results from many convergent causes: the loosening of state control on popular organizations in the last decade; shift in donor interest towards alternatives to funding governments directly; pull back of government from social services which obliges citizens to take more responsibilities; and the rise of a spirit of enterprise that may be expressed through NGOs as social entrepreneurship. In Tanzania for example, over 800 nonprofit agencies were registered in the last few years, overwhelming the government agency charged with monitoring them, and leading to a protracted negotiation to redefine the legal basis and regulatory framework of the nongovernmental sector.

**NGO typology.** Volumes have been written to elucidate complex NGO typologies, which will be presented here in simplified form. The most obvious dichotomy is what NGOs are not: they are not governmental, being instead created by citizens, and they are not, for the most part, in the for-profit sector. In terms of African development activities, another evident distinction is between international NGOs typically headquartered in Europe or North America, and national NGOs based in the country of operation. In terms of budgets international NGOs are still leaders, but national NGO movements are rapidly gaining strength.

For CBFM it is important to distinguish between national NGOs and community groups at the local level. The latter are known as community-based organizations, CBO or rural organizations, or, confusingly, 'local NGOs'. CBOs and NGOs usually have different legal status and registration requirements. Other distinguishing elements between CBOs and national NGOs concern vision or mandate, sophistication of management, and base of support.

NGOs in Africa often have a national or subnational perspective and carry out multiple projects. They have a self-perpetuating board that hires an executive who in turn manages paid and/or volunteer staff; and they depend on outside financial support. CBOs typically have a local perspective and local agenda centered on the needs of constituent members. They are typically run on a basic level by unpaid leaders. CBOs or rural organizations that communities and

resource user groups establish in the framework of CBFM are beneficiaries rather than service providers as is usual role of NGOs. It is the latter group that this section addresses (Otto, 1991).

**National NGOs.** Considerable variation exists within the broad category of national NGO. For example, a national NGOs may act as a service provider in the mode of international NGOs, or it may be a membership organization primarily mandated to meet members' needs like a benevolent society. It may be a hybrid of the two, such as an association of same-skill professionals (well diggers, environmental lawyers or journalists, or unemployed professional foresters) who organize to gain employment by providing services. For CBFM purposes the key consideration is what talents they bring to face the challenges at hand, whether those be issues of national policy, building local capacities, testing techniques or some other aspect of the CBFM picture.

**International NGOs.** In many CBFM efforts, international NGOs play a major role. From the donor's perspective, they are the project implementers or sub-contractors, although consulting firms also play this management role in some cases. Working in partnership with the host country's governmental services. Major NGO players in the more general field of CBNRM include IUCN, WWF and specialized wildlife agencies, among others. CBFM leadership among international NGOs has been taken by CARE International, Lutheran World Relief, and CLUSA. CLUSA in particular, with its focus on training, cooperative development and group enterprise, has developed impressive capacities and commitments in CBFM in Niger, Benin, and Zambia.

While inputs in technical aspects of forest management are required for any CBFM efforts, the crucial contribution of CLUSA and leading NGOs is in the area of local institutional capacities: to establish management structures for genuine community participation, to create and operate profitable group businesses based on forest products, and to develop and implement plans for these forest-related economic activities. This begins with a long stage of building trust and understanding within the communities, and continues with the participatory process of developing and implementing the forest management plan. Training and coaching over a number of years help develop the institutions of democratic local control of CBFM and skills in leadership, financial management and entrepreneurship. Details of the CLUSA approach are found in Annex V.

Besides direct management of CBFM project funds and activities, international NGOs make numerous indirect contributions in the field. CARE's work on natural regeneration of trees and agroforestry are examples on the technical side. A number of NGOs such as IIED have contributed to adopting and disseminating participatory research methodologies like PRA that have dramatically changed the way external agencies approach local communities. Meanwhile WRI has worked to gain a better understanding and document the legal and policy issues in NRM.

**National NGOs in future CBFM.** Building national NGO capacities to share in the expansion of CBFM is likely to be a central concern in the next wave of CBFM programming. As one knowledgeable commentator, Roy Hagen, writes:

“One of the most exciting developments in community based management of natural resource in the past decade has been community based natural forest management in the tree and shrub savanna zones in the Sahel, especially in Niger and Burkina Faso. ... Although most projects are implemented by international NGOs and other agencies in collaboration with the local forest service (*Eaux et Forêts*), there is great potential for African NGOs and CBOs to assume a leading role in sponsoring community-based forest management. African NGOs could potentially respond to government and community needs for information sharing and communication, training, technical service delivery, conflict resolution and advocacy for political reform” (Brown and McGann, 1996).

National NGOs, as they continue to gain strength and develop competencies, are positioned to offer unique contributions to the CBFM process. Perhaps foremost among these is their very nature of being based in the country in question. They can potentially provide culturally-attuned technical and institutional capacity building services, and do so more cost effectively than external agencies. Equally important for programs like CBFM that will require many years of guidance is the fact that national NGOs can provide such long-term, relatively inexpensive, intermittent presence. When donor interest lags after the normal period of project implementation, personnel of national NGOs who have assisted in implementation can provide post-project monitoring, refresher training to maintain and assistance to expand local institutions’ capacities, mediation of conflicts and participate in on-going policy dialogue.

In the National Forest of L’Ouémé Supérieur, Benin, a national NGO is being tested as the focal institution to oversee the implementation and monitoring of the forest management plan. Annex II provides the outlines of that CBFM program.

To play these roles, national NGOs themselves will need to be strengthened. Bearing in mind that the indigenous NGO movement was suppressed in most African countries until quite recently, these needs are broad, encompassing basic management competencies as well as technical skills training. As donors have increasingly turned to national NGOs, using mechanisms such as ‘umbrella’ style small grants programs, NGO institutional capacity strengthening has belatedly been targeted for investment. An important aspect of this has been an increase in partnering between northern and African NGOs in symbiotic relationships (Otto and Drabek, 1992).

There are numerous problems and pitfalls. For one, expectations of NGOs as the great hope, with direct government management of development program discredited, are unrealistically high. For another, NGO leaders, like those in other sectors of society, must struggle to overcome inherited models of autocratic leadership styles if they are to forge more equitable partnerships with rural organizations and communities.

Building NGO capacities, like the building of local institutions in CBFM, is an iterative process, not a once-and-for-always event. However, investments in the nongovernmental sector will pay off for many years to come. In fact, it is hard to imagine the large-scale expansion of truly durable CBFM programs without the participation of skilled, self-sustaining national NGOs.

**NGOs and women in forestry.** NGOs have been in the forefront of the struggle for women's equal involvement and benefit in development efforts. NGOs have led in research, policy promotion, training and pilot activities that have begun to change long-standing attitudes and practices deleterious to girls and women. Natural resource management and forestry are no exceptions to wide-spread gender inequity. Women are at risk of losing their customary access to forestry products when forest management plans are enacted, and of being excluded from lucrative enterprises that involve gender-defined tasks. In fact, one study in India as discussed in Annex III found that in one Joint Forest Management project low caste women had been adversely affected (Hill and Shields, 1998).

CBFM programs offer a golden opportunity for women's access to remunerative activities, from harvesting forest products to management of wholesale and retail marketing. This opening exists only if women are allowed to participate in drafting the laws governing the use of the forest as defined in the management plan. Thus, rather than extend or worsen this inequity, CBFM and the institutions and enterprises it engenders offer new chances for women. Without NGOs advocating for women and their rights, this is unlikely to happen.

## **Cooperative League of The United States of America: Focus on Linkage of Economic Activities to Forest Management<sup>20</sup>**

Founded in 1916, the Cooperative League of the USA (CLUSA), is the oldest national cooperative development and trade association in the USA. Over a period of forty years, CLUSA has worked in more than 60 countries in partnership with cooperative organizations, other private businesses, and donor agencies such as USAID, World Bank, United Nations Development Program, International Fund for Agricultural Development, and the United Nations Capital Development Fund.

CLUSA has been engaged in the development of community-based economic activities and natural resources management in Africa for 15 years. In particular, CLUSA's experience in assisting communities in sustainable forestry management in Benin and Niger in West Africa and the lessons learned from this experience are worth reviewing in the context of this document on CBFM.

### **Lesson's Learned By CLUSA in West Africa**

- Villagers are fully capable of analyzing their own environment in light of their own development needs and priorities, and from this analysis they are capable of deducing appropriate actions to follow—if trust is expressed in their capacities and they are allowed to follow their own logic and processes in conducting the analysis and reaching their own conclusions as to what must be done.
- Villagers are able to create organizational forms and procedures that are both original and enduring when firmly nestled within their own experiences and culture; attempts to impose these structures from outside always impede a community's ability to organize and manage itself.
- Villagers when supported by their own organization are fully capable of collaborating with technical service personnel as equal partners, assuming that clear objectives and procedures are established and that an atmosphere of mutual respect can be created.
- The provision of economic incentives by channeling fees and licensure income to management structures and by promoting business opportunities for local entrepreneurs are essential in motivating people to undertake the lengthy learning and implementation processes that are inherent in community management and group business development.
- Once the conditions are achieved that allow villagers to exercise their capabilities, remarkable things can happen:

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<sup>20</sup> Annex VI was abstracted from an unsolicited proposal developed by CLUSA for a community-based program of natural resources management in Zambia submitted to USAID in February, 1998. Subsequently, the proposal was accepted and work is slated to begin in Eastern Province, Zambia in January, 1998.

forest management functions previously performed by government can be transferred to local communities;

effective forestry management plans can be developed with the input and participation of various stakeholders, leading to enhanced implementation;

forest maintenance/improvement costs can be covered by fees paid by those using the forest; these funds are managed by community organizations at a cost inferior to that incurred by governmental institutions;

effective patrol and enforcement of rules and guidelines developed in the context of the forest management plan can be enforced by local structures;

improved technology for sustainable forest resource exploitation can be rapidly disseminated.

## **Two Reasons Why Community Forest Management Does Not Work**

- No capacity training component is provided for the communities.
- Economic incentives are lacking and discussion focuses exclusively on ecological consideration, leaving local people faced with immediate economic problems unmotivated to undertake new responsibilities.

## **Conceptual Framework and Methodology of The CLUSA Approach to Group-Based Enterprise Development**

CLUSA's approach to natural resources/forest management is based on a system of decentralized, village-based training that utilizes the principles of adult education. It emphasizes the development of three important capacities: (1) the capacity to set up management structures (committees, NGOs, councils) capable of developing, implementing and evaluating their own forest management plans; (2) the capacity to create and operate profitable group-based economic activities utilizing forest resources in sustainable ways; and, (3) the capacity to develop and implement rational management plans for these forest-related economic activities.

The following paragraphs summarize a number of conceptual elements that are basic to the CLUSA approach to group-based natural resources management and group-based enterprise development:

**Participation must result in genuine economic benefits.** A member-owned business must place its primary focus on the success of its business activities and demonstrate an ability to provide its members with economic goods and services.

**A strong sense of member ownership.** Perhaps the most essential element in unlocking the energy and commitment of the group-based business is the full realization by the members that they are the owners, that the business indeed belongs to them. They are the decision-makers and

they—rather than any outside persons or organizations—are responsible for its operations, and they are the one who can benefit from its profits.

**Decisions are made at the local level.** The CLUSA conceptual approach reverses the usual top-down hierarchical relationships that exist between advisory services and rural client groups. The local group or community-based association becomes the focus of decision-making for its own economic activities.

**Groups must operate on democratic principles.** The concepts of grassroots democracy and one-member, one-vote have long been basic to the operation of business-oriented cooperatives in western countries, and are essential to the CLUSA approach. Learning and applying these basic democratic concepts to the management and operation of their economic activities provides groups members with a laboratory for democracy.

**Rural business development is a step-by-step process.** All interventions of the field staff and the development of all business activities are broken down into a series of discrete steps, and the process moves forward one step at a time. Training is incremental and based on manageable units, the mastery of one unit preparing the learner for the next. Motivation results from building a sense of success and achievement.

**Functional literacy is an integral component of business skills training.** Functional literacy is an important element in preparing group members to assume management of their own economic activities. Without the ability to read, write, and perform basic mathematical calculations, the ordinary members of the groups or association will always be dependent on others for information, a dependency that limits their ability to make informed decision on their own behalf. Extending literacy and numeracy skills to the general membership helps to assure them a measure of control over their leaders and to assure that business activities will be undertaken in the best interest of the entire group.

**Groups initiate a variety of business activities.** Given the variety of local needs that can be collectively addressed, groups are encouraged to engage in multiple economic activities. Although each group begins with a single activity and focuses on making that initial business a success, experience has shown that it is important for groups to develop the capacity to operate several business activities, some of which may be sequential and operating concurrently. This multi-functional nature results not only in the creation of specific business activities, but also strengthens the group's capacities to identify and respond to other economic opportunities.

**Group businesses should develop linkages to commercial sources of credit.** Rather than operating a credit program, the CLUSA program assists the participating rural groups to become accepted as customers by a dependable commercial financial institution. By demonstrating effective management and developing viable business plans, the groups are viewed as any other business client of the banks. This also means that the groups are expected to pay the same commercial rates of interest of other businesses.

**Group-based businesses need access to information and technology.** As is true with any business, group-based enterprises require both access and an ability to utilize information and technology. Traditionally, community groups have tended to be passive recipients of whatever extension message is brought to them, regardless of how inappropriate or ill-adapted it may be.

The CLUSA program trains the groups members to assess their own technology and information needs, then to identify and access the persons or organizations that can satisfy those needs.

## **Methodology for Developing Village Organizations Capable of Participating in the Protection and Harvesting of Natural Resources**

### **1. Meetings and discussions with all parties on an approach to forest resource management.**

Discussions with local communities. From the beginning, it is important that leaders and members of the targeted communities realize that if they choose to participate in the program, they are going to have a significant role in the process of developing the management plan, and that they will be empowered to make basic decisions on the management of the forest resources. These initial meetings have three objectives.

- to assist the communities to become aware of their environment;
- to provide an opportunity for the project leaders to be informed about the concerns and ideas of the communities; and,
- to provide information to the communities on how a community-based forest management system works.

*Introductory workshops are held to analyze the situation in the villages and on the status of forest resources. The results of these initial workshops are presented in village general assemblies where all villagers have an opportunity to discuss the issues. During these general assemblies, the villagers select small groups of individuals with appropriate experience and skills to carry out more in-depth studies of the forest and environmental problems.*

These groups are assisted by CLUSA field staff who provide technical assistance and facilitate the meetings and workshops held in all the villages to present the results of the studies and explain the process of developing the management plan. These meetings also provide an opportunity for CLUSA's field staff to begin building a relationship of mutual respect and trust with the villagers. Efforts are made to insure that everyone participates in these meetings including: youth, women, the elderly, pastoralists, farmers, harvesters of forest products, entrepreneurs, NGOs and forest agents.

During the meetings and workshops, local people become more aware of environmental problems through the active examination of their local situation, and they learn the causes and consequences of the degradation of their natural resources. Also, during these meetings, the project's approach and methodology are explained and discussed so that everyone understands how the program operates, what responsibilities are involved, what the benefits are, and how the community can participate. Following these discussions, the communities decide whether or not they wish to participate in developing a community-based forest management system.

**Meetings with government and technical services.** Although the initial contacts with officers of government preceded the meetings with the local communities, follow-up meetings are held to inform the officials of the results of the discussions at the community level and receive their input and suggestions. Frequently, these follow-up sessions include additional government officers and provide an opportunity to inform them of the program's objectives and approach and seek their advice and support. At the local and district levels, meetings are also held with traditional leaders as they have an important role in their communities.

It is also important during these early discussions that the program begin to establish supportive relationships with government technical services, local government officials and NGOs. The objective of all of these meetings and discussions is to have all interested parties, in a spirit of mutual respect, focus on ways to assist and encourage the local communities to become involved in planning the sustainable use and management of their natural resources.

## **2. Development of the Forest Management Plan**

***Dividing the forest into management units.*** Usually, in preparation for this phase of the process, forestry service personnel and community representatives meet together and agree on recommendations about how the forest could best be subdivided into management units and how certain zones might be made available for specific harvesting activities. After thorough discussion, and perhaps with modifications, the recommendations are adopted and information sessions are held with the entire community.

***Additional preparations for the Forest Management Plan (FMP).*** Preparations during this step bring together representatives of the communities, government technical services (agriculture, livestock, fisheries, forestry, local administration, and NGOs) to determine what should be covered in the FMP and to establish technical commissions to draft the rules and regulations for the use and maintenance of the forest.

The technical commissions cover such subjects as farming, livestock, hunting, fishing, tree cutting, charcoal manufacturing, reforestation and administration. Usually, about 75% of the commission members are villagers with the remainder coming from the appropriate technical services.

The commissions prepare their work plans, make visits to the forest to examine the problems to be addressed and hold meetings in the villages to present their findings and enrich them from other local experts.

***Finalizing the Forest Management Plan.*** Community and technical service representatives consider all of the commission findings and recommendations and set up a regular means of communication with the villagers, government administrators and the technical services. As the plan moves toward completion, each element is submitted to the villagers for discussion and comment. When the plan is completed, it is again reviewed and approved by the villagers before submission to the appropriate government ministry for approval and signature.

*The plan covers such subjects as the establishment of management and administrative structures, regulations and procedures for managing and monitoring the forest, revenue generation such as assessment on the use of forest resources, financing reforestation activities*

*such as establishing a forest management fund, and the rules governing the operation of business enterprises using forest resources. Depending on the size of the forest and the number of villages involved, the process of developing a forest management plan from the first contact with the villagers to the presentation of the plan to the government can take 6 to 18 months.*

### **3. Implementation of the Forest Management Plan**

***Setting up management systems and village organizations.*** Based on the plan, the management structures and committees are established. Once the structures are operational, they are encouraged to develop a permanent promotion and training group made up of young, competent villagers (animators) who will assist the community to acquire the necessary technical skills to manage the forest. Each community has sufficient human resources to develop the community, and this process combines two complementary elements of the community: the traditional authorities who have the respect and trust of the village; and younger adults with the desire and capacity to learn new skills.

Through training, the animators learn how to access technical services, assess and inventory forest resources, disseminate information, advise the village committees, undertake feasibility studies, manage day-to-day activities and liaise between forestry agents and the village. CLUSA's experience in Mali, Niger and Benin clearly demonstrates the enormous potential of rural young adults when they are mobilized and trained to assist in the development of their own villages.

***Training of community leaders and animators.*** The initial training session focuses on finalizing and ensuring complete understanding of the by-laws and roles of the committees. Each structure is assisted to develop a vision of its mission and to formulate its own standards and values to improve decision making and operations. Once this groundwork has been laid, the training shifts its focus to team building and skills development.

***Discussion of the FMP with the general community.*** The completed FMP is reviewed and discussed by all segments of the general population, including the leaders of village organizations, the technical services and NGO's. Discussions focus on: the agreements involving commitments from each party about the zones of exploitation and harvesting; the areas of responsibility for each village; the zones for agricultural cultivation and grazing; and the interventions needed for forest improvement and restoration. The FMP includes a financial plan that specifies the financial or in-kind participation expected of every part of the community and the benefits that each can expect.

***Creation of enterprises by interested villagers.*** These discussions allow villagers to become familiar with the harvest zones and to identify possible economic activities that could serve as the basis for establishing enterprises based on the use of forest resources. Although these may be either individual or group enterprises, emphasis is placed on the development of group enterprises or association based on mutual cooperation among villagers who know and trust one another and who have a common interest in a particular business activity. The village-based animators assist the enterprises to obtain any needed technical services and to organize and implement their business activities.

***Selection and preparation of the economic activities.*** Each economic activity based on the use of forest resources must conform to the FMP. Assisted by the animators, the new entrepreneurs organize their economic activities, prepare a feasibility study and determine the steps necessary to implement the activity. This process serves to develop the group's planning skills.

***Training of the entrepreneurs.*** Entrepreneur training is based on the development of the economic activities. If needed, basic literacy and arithmetic are included, using the records and forms developed by the enterprise group in the local language. The intent is to link the training to specific tasks involved in implementing the economic activity. When necessary, the project extension agent or the animator also serves as a consultant, advising the group members as they encounter problems. It is important that the field agents and animators not perform tasks for the entrepreneurs. Rather, they are there to provide assistance, help in solving problems, respond to questions, and provide feedback. It is up to the entrepreneurs themselves to carry out the activity.

***Monitoring and evaluating the implementation of the FMP.*** During the implementation process, the local structures monitor forest activities, keep track of results and evaluate the process. The various management committees cover all aspects of the plan and the capacity of the economic groups such as: learning of new skills, financial management, respect of the management plan, sales and profits. In addition, the condition of the forest is monitored according to indicators of sustainability as defined in the management plan.

Annex VI

**Extent of Forests and Deforestation, 1980s  
and Forest Management**

## ANNEX VI

	Deforestation, 1980s						
	Extent of Forest and Woodland, 1980s (thousand hectares)		Average Annual Extent (thousand hectares per year)	Percent per Year	Reforestation 1980s (thousand hectares per year)	Managed Closed Forest 1980s (thousand hectares)	Protected Closed Forest 1980s (thousand hectares)
	Open	Closed					
World	1,261,869	2,859,535					
Africa	483,943	221,375	3,347	0.5	196	2,331	9,501
Algeria	249	1,518	40	2.3	22	x	8
Angola	50,700	2,900	84	0.2	0	x	x
Benin	3,820	47	67	1.7	0	x	x
Botswana	32,560	0	20	0.1	x	x	0
Burkina Faso	4,464	271	80	1.7	2	x	x
Burundi	14	27	1	2.7	1	x	13
Cameroon	7,700	17,920	110	0.4	1	x	x
Cape Verde	x	x	x	x	0	x	x
Central African Rep.	32,300	3,590	55	0.2	x	x	x
Chad	13,000	500	80	0.6	0	x	0
Comoros	x	16	0	x	0	x	x
Congo	x	21,340	22	0.1	2	x	130
Cote d'Ivoire	5,376	4,458	510	5.2	3	1	648
Djibouti	100	6	x	x	x	0	0
Egypt	x	x	x	x	2	x	x
Equatorial Guinea	x	1,295	3	0.2	x	x	x
Ethiopia	22,800	4,350	88	0.3	6	x	x
Gabon	75	20,500	15	0.1	x	x	x
Gambia	150	65	5	2.4	0	x	x
Ghana	6,975	1,718	72	0.8	3	1,167	397
Guinea	8,600	2,050	86	0.8	0	x	0
Guinea-Bissau	1,445	660	57	2.7	0	x	x
Kenya	1,255	1,105	39	1.7	0	70	471
Lesotho	x	x	x	x	0	x	x
Liberia	40	2,000	46	2.3	1	x	x
Libya	56	134	x	x	9	x	x
Madagascar	2,900	10,300	156	1.2	12	x	930
Malawi	4,085	186	150	35	6	x	146
Mali	6,750	500	36	5	0	x	x
Mauritania	525	29	13	2.4	0	x	x
Mauritius	x	3	0	x	1	x	x
Morocco	1,703	1,533	13	0.4	5	421	7
Mozambique	14,500	935	120	8	1	x	25
Niger	2,450	100	67	2.6	2	x	x
Nigeria	8,800	5,950	400	27	14	0	x
Rwanda	110	120	5	2.3	2	x	12
Senegal	10,825	220	50	5	2	0	63
Sierra Leone	1,315	740	6	0.3	0	x	x
Somalia	7,510	1,540	13	0.1	1	x	x
South Africa	x	300	x	x	63	10	290
Sudan	47,000	650	104	2	11	50	x
Swaziland	70	4	0	x	5	x	x
Tanzania, United Rep.	40,600	1,440	130	0.3	7	0	410
Togo	1,380	304	12	0.7	0	x	x
Tunisia	111	186	5	1.7	4	163	x
Uganda	5,250	765	50	0.8	0	442	58
Zaire	71,840	105,750	347	0.2	0	x	5,700
Zambia	26,500	3,010	80	0.3	3	5	183
Zimbabwe	19,620	200	80	0.4	5	x	x

Source: World Resources Institute, IIED, UNEP. World Resources 1988-89. Basic Books, New York, p.286.