USAID's Enduring Legacy in Natural Forests: *Livelihoods, Landscapes, and Governance*

Volume Three:

Focus Country Profiles

This is Volume Three: Focus Country Profiles, of a three-part publication, which includes Volume One: Study Summary and Volume Two: Study Report. This trilogy highlights USAID's efforts to improve community benefits from natural forest management through the promotion of Livelihoods, Landscapes, and Governance.

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USAID's Enduring Legacy in Natural Forests:

Landscapes, Livelihoods, and Governance

Volume Three:

Focus Country Profiles

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AFRICA

ASIA

LATIN AMERICA

BURUNDI

National Level

Background

Burundi is a former Belgian colony that gained independence in 1962, roughly at the same time that neighboring Rwanda also gained independence from Belgium. For most of the period following World War I through independence, Burundi and Rwanda were linked administratively through the their Belgian colonizers and known collectively as Ruanda-Urundi. Rwanda and Burundi are similar in size, geography, ethnic composition, and predominant livelihoods. Burundi, along with Rwanda, is one of the two most densely populated countries on the African continent. As more than 80 percent of the population are agriculturists, the availability of land is a constant issue.

Ethnic tensions and political power struggles characterize the years prior to and following independence in both Burundi and neighboring Rwanda. In 1961 Burundi's first prime minister was assassinated only four months into office. Between 1962 and 1965 two more prime ministers were assassinated, and in1966 a military coup officially ended Burundi's period as a monarchy. In 1972 an unsuccessful revolt by the Hutu majority to remove the Tutsi's from power resulted in the deaths of almost 100,000 individuals. From 1973 until the late 1980s there were relatively few violent uprisings despite the presidency changing twice as a result of military coups (in 1976 and again in 1987). In 1993 Burundi held its first elections for president, which led to a Hutu president for the first time. He was assassinated by military officials later the same year and Burundi has been mired in civil war since. The death toll as a result of civil war is estimated at well over 200,000 people since 1993.

The post-colonial period saw Burundian agriculture concentrate on the expansion of commercial crops for export. Already known for producing high quality coffee and tea, Burundi expanded these programs through the development of parastatal agencies. The agricultural research agenda at the time was also geared toward improving productivity and quality in this area as well. Part of the tea expansion led to the removal of highland natural forest areas for the installation of tea plantations covering thousands of hectares. This occurred around the Kabira forest reserve, which became the Kabira National Park in1982. As in most other focus countries, at independence and until the early 1980s, the agency responsible for the management of forests was located within the Ministry of Agriculture.

Given the energy crisis of the 1970s (Burundi is landlocked and dependent on importing petroleum resources by road via Mombassa, Kenya or Dar Es Salaam, Tanzania) and the projected fuelwood crisis throughout Africa, Burundi initiated an ambitious reforestation/afforestation program. As a result, by the end of the 1980s Burundi had already established more than 70,000 hectares of plantations (mostly pines and eucalyptus). In the early 80s, the Forest Department (Eaux et Forets) was primarily occupied with the plantation programs and unable to effectively manage the country's remaining natural forest areas, which were increasingly threatened by land conversion (and to a limited extent illegal logging and mining).

By the late 1970s and the early 1980s Burundi's image in the international conservation community was as a small, resource-depleted country that was little more than a transfer point for the

illegal shipment of ivory (mostly from the Democratic Republic of Congo as Burundi had already eliminated its elephant population). The international community was generally unaware that Burundi's remaining forest resources contained a range of valuable and endemic species. The richness and diversity of Lake Tanganyika was also not well understood at that time. The inability of the Forest Department to effectively manage the natural forest resource base, coupled with the international perception of Burundi as the destabilizing center for regional conservation efforts, led to the creation of the National Institute for Nature Conservation (INCN) in 1982.

The INCN was given management responsibility for all remaining natural forest reserves and national parks and the task of cleaning up Burundi's conservation image. The INCN was a parastatal organization attached to the office of the president. The creation of the INCN led to some donor interest in supporting field activities. The Caisse Francaise de Development (French International Development Bank) assisted the INCN with infrastructure, inventory and planning for the management of Kabira National Park. The United States Agency for International Development (USAID) took the lead in assisting with the conservation and management of the Bururi Forest Reserve. Peace Corps opened a new country program in Burundi in 1983 and supported the INCN with volunteers assigned to field sites (including Bururi Forest Reserve and Kabira National Park) and headquarters.

In 1986, building on the USAID model in Bururi, Catholic Relief Services (CRS) began working with the INCN on the management and conservation of the Southern Reserves (Rumonge and Kigwena). In 1987 the government of Burundi expanded the mandate of the INCN by adding the responsibility of environmental management for the country. The INCN then became the INECN (Institut Nationale pour l'Environment et la Conservation de la Nature). Peace Corps maintained a close working relationship with the INECN by helping expand field operations in the national parks and forest reserves until Peace Corps closed its country program for security reasons in 1993.

Current Situation

Burundi's ongoing civil war has left the country in the worst physical, social, and economic condition since independence. Although a cease-fire and transitional government power-sharing arrangement was successfully negotiated between the military and most of the rebel groups (brokered by Nelson Mandela), peace and stability are not on the horizon. Several rebel groups have not honored the cease-fire agreements and continue to carry out thieving raids and attacks on communities and government institutions. Despite the power-sharing plan moving forward as scheduled (a Hutu president took over in April 2003), conditions have not changed significantly.

During the past 10 years deforestation rates have risen dramatically. Rebel groups use virtually all of the forested areas (including parks and reserves) as operational bases. Rebels not only use the forest for their own fuelwood, construction materials, and game meat needs, they have organized commercial charcoal operations and timber cutting as well, for income generation and the procurement of weapons. There are also reports of the military taking advantage of the unstable situation to carry out wood-cutting operations (for its own use and income generation) in protected areas under the guise of clearing forests along roads for security reasons. And with the breakdown of law and order, local politicians and others are expanding their land holdings into protected areas and previously unsettled regions. In the Bururi area the Catholic Dioceses and the Pentecostal Church both have sawmills and woodworking shops that drive the demand to cut timber in the Bururi Forest Reserve. Recent interviews with residents of the Bururi area cite the

rapid and ill-prepared national move towards democratization (1993) as the turning point in a negative direction for conservation: politicians in complicity with local leaders promised land and access to the forest resources (illegal uses) in return for votes. Residents claim that this set off a series of destructive practices that continue today. Although the INECN still exists, it is able to do little in regard to its original mandate. In some areas communities place part of the blame for illegal logging and other destructive activities on INECN field agents and local officials working together.

In the FAO's annual report on global deforestation, Burundi's annual deforestation rate is listed at nine percent. This still makes deforestation in Burundi far and away the highest of any nation (Haiti's 5.7 percent is next highest). Some of this is occurring within the plantations created during the 1970s and 1980s (some of which are economically mature), but most is in open access woodland forests in the eastern part of the country and in protected areas. Reportedly, the Kabira and Ruvubu National Parks have suffered from deforestation and severe degradation, while Bururi, Rumonge, and Kigwena Forest Reserves have been degraded.

USAID Assistance

USAID still maintains a program in Burundi that focuses on governance and health issues. The USAID program for forestry and the environment was housed in the Agricultural Development Office and began with the Bururi Forest Project in 1982. At that time the mission was also funding a peat utilization project (peat as an alternative energy source) and a seed multiplication farm in southern Burundi.

The Bururi Forest Project was funded for a period of four years (1982-1986) and received a no-cost extension for an additional year. The original project design called for the protection of one of the two remaining highland forests in Burundi through buffer zone plantations around the entire perimeter of the forest, monitoring and protection systems, and fuelwood production through woodlots. The original project also had provisions for the removal and relocation of 100 families that were living adjacent to or within the boundary of the reserve (almost all of the families lived on the remote western side of the forest).

However, during the first year of implementation the plan to displace most of the families was cancelled in favor of an agroforestry program designed to substitute on-farm production for products normally taken from the forest. The relocation plan had already been discussed with local officials and communities; the cancellation of that plan and the development of the agroforestry program were viewed positively by residents. Of the hundred families scheduled for relocation, only five were eventually displaced. They were living a kilometer inside the limit of the reserve and were relocated to a nearby area just outside the reserves boundary. Agroforestry extension eventually became one of the project's main programs.

A final evaluation conducted in 1986 by REDSO/Nairobi recommended that the mission continue to support project activities for a second phase. However, the mission significantly reduced the level of direct support to the project, and eventually maintained only minimal levels of funding for Bururi by channeling funds through Peace Corps (Peace Corps Biodiversity Project). This provided support for additional volunteers and some minimal field activities. The long-term technical forestry advisor who had been assigned to the project in 1985 left in 1988. The final Peace Corps volunteer to work on the project left in 1993.

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The Bururi Forest Project served as a model for the Rumonge Agroforestry Project, a conservation and development initiative managed by Catholic Relief Services and the INECN. The Rumonge project worked in the same landscape as the Bururi forest and concentrated on agroforestry extension and the conservation of natural forest reserves and gallery forests at lower elevations. The Rumonge Agroforestry Project provided limited support to the Bururi Forest once USAID funding stopped. The Rumonge project also benefited from Peace Corps support through its Biodiversity Project. Other projects that modeled agroforestry programs after the Bururi project included the Austrian-funded SRD Rumonge agroforestry initiative and the agroforestry extension work initiated at Kabira National Park.

The USAID-funded Peace Corps Biodiversity Project was active in most sites managed by the INECN. This project began in 1987 and also funded the chief technical advisor position to the INECN director general's office. The project provided support for up to 15 volunteers over a five-year period working in inventory, monitoring and protection, conservation education, ecotourism, and park planning. The technical advisor position also managed the Peace Corps program within the INECN. The Biodiversity Project helped the INECN host the Second International Workshop for the Conservation and Management of Afromontane Forests, which was held in Bujumbura in 1992. The U.S. Forest Service also provided support for the workshop.

Little documentation is available about USAID's investment in natural forest management for Burundi. The 1992 "INCN Project Assistance Completion Report for Bururi Forest" conducted by USAID is useful, but limited. It focused on in-forest conservation efforts and failed to review farm-level woodlot, agroforestry, and home garden productivity work. This is likely because these activities were not included in the initial project document (from 1982). Similarly, a 1989 USAID-funded assessment of support to INCN noted that forest conservation came at a significant cost to local populations because many families had been displaced to establish protected areas in Bururi. Again, the original project document called for the relocation of 100 families, but actual implementation was a small fraction of the original target.

For this report, time and security constraints restricted field-level (community) interviews to the Bururi Forest area. Other interviews were conducted in Gitega (INECN head quarters) and Bujumbura.

A summary of USAID contributions to natural forest management in Burundi include the following points:

Biophysical

Expansion of Bururi Forest. As a direct result of project activities, the size of the Bururi Forest Reserve was increased from 1,600 hectares to 3,300 hectares through the establishment of clear boundaries and buffer plantations.

Fire Protection. Fire had been a regular and serious threat to the forest prior to the Bururi Forest Project. The establishment of buffer plantations has significantly decreased the threat of fires to the forest's integrity.

Baseline information. Biological inventories (floral and faunal) have been conducted in the Bururi Forest Reserve, Kabira, and Ruvubu National Parks on several occasions. Phenological observations, germination tests, and growth trials of natural forest species were carried out over a two-year period at Bururi.

Ecotourism Programs. Prior to the civil war, Bururi and the other parks (through the Peace Corps Biodiversity Project) were becoming ecotourist attractions for trail walkers, bird watchers ,and others interested in primate viewing (monkeys and chimpanzees). The Peace Corps project established a series of trails and visitor information materials and trained guides to facilitate these activities.

Management Plans. The Peace Corps Biodiversity Project assisted the INECN to develop management plans for most of the INECN-protected areas.

Infrastructure. The Bururi Forest Project constructed an office headquarters for the INECN and a ridge-top tourist cabin adjacent to the forest.

Woodlots and Agroforestry Systems. The Bururi Forest Project increased on-farm biomass productivity through the establishment of woodlots and agroforestry systems in communities adjacent to the forest.

Transboundary Coordination. The Peace Corps Biodiversity Project facilitated and helped the INECN host the second international workshop for the conservation and management of Afromontane forests (July 1992).

Social

Awareness. Interviews with community residents (Bururi) indicated a heightened awareness of the importance of critical environmental services as a result of project activities. On a national level, the Peace Corps project helped advance the INECN conservation message to a much wider audience.

Tree planting for fuelwood and fodder. Prior to the development of the Bururi project, residents regularly used the forest for fuelwood collection and livestock grazing. According to respondents, the agroforestry program stimulated behavior change by providing techniques and materials designed to increase on-farm production as well as the implementation of soil conservation measures.

Skills transfer. Community respondents noted that people who had been employed by the project working in the tree nurseries and as extension workers have found employment on other projects doing similar work. Many of them are now working on the International Fund for Agriculture Development (IFAD)-funded rural development activity in the region.

Economic

Income from tree sales. In Bururi there are a number of residents in the community that have adopted woodlot management as a commercial venture in addition to subsistence needs. Residents credited project activities for this development. Some farmers are selling boards to the local sawmills while others have contracts to provide poles to the regional utility company.

Other enterprise possibilities. Respondents noted that commercial wood sales have encouraged others to consider forest enterprise activities, including handicrafts. They expressed an interest in receiving training in these techniques.

Employment. Respondents in the Bururi area noted the direct employment advantages the project had created. They were encouraged by the early development of the ecotourism activities prior to the civil war and hope that one day this opportunity will be available again.

Institutional

Policy and law. Programs and activities conducted on the Bururi and Peace Corps projects helped reform the forestry code and the development of the national environmental code.

National Poverty Reduction Strategy. Although natural forest management is not addressed in the national poverty reduction strategy, agroforestry and reforestation activities are included. The Bururi Forest Project was one of the first projects in Burundi to use agroforestry as a vehicle for development goals and is credited with having raised the visibility of agroforestry (and reforestation) within the country.

Project Replication. Activities initiated by the USAID project at Bururi led to replication in at least five other projects: Catholic Relief Services activity in Rumonge, SRD activity in Rumonge (Imbo region), Caisse Francaise de Development at Kabira, GTZ, and Peace Corps Biodiversity. The Peace Corps project, the CRS activity in Rumonge, and the U.S. Ambassador were instrumental in getting the Jane Goodall Institute established in Burundi.

Lessons Learned

1 In a new project setting, four to five years is an insufficient amount of time to accomplish lasting development goals on a forestry project. All community respondents were quick to note that the USAID project did not stay long enough in the area; agroforestry and woodlot practices adopted by residents in the northern, eastern, and southern areas around the reserve did not have enough time to become established in the more remote western area because the project left too soon. It is the western communities that are practicing the most destructive activities today. All interviewees and respondents cited the fact that USAID walked away from a promising forestry activity only four years after full-scale implementation was underway as the single most important reason why many of the projects activities were not able to sustain the test of time and civil war. All respondents remarked that the forest would be better conserved today had USAID stuck with the Bururi project for another three to four years, the time it would have taken to fully implement the agroforestry activity (on the remote western side) and strengthen conservation awareness within the general community. This could have led to more productive farm-level enterprises and the maintenance of valuable services that the forest provides (water and medicinal plants among others).

2 Missions must have in-house NRM expertise if they are engaged in forestry activities. The mission actively supported the Bururi Forest Project for the initial year (when the agricultural development officer had a forestry background). Once the point person for this activity was transferred to another country program, the mission had no one conversant with forestry issues (or interested in them). Hence, there was no one in the mission who could articulate how this program related to the rest of the mission's Agricultural Development Office activities (seed multiplication, energy efficiency, farming systems). The fact that the Bururi project was a pioneer in Burundian agroforestry was not compelling enough for the agricultural development officer (ADO) to resist closing the program despite a positive final evaluation that recommended continued funding for several more years. The ADO felt that it was better to "wrap the activity up" and call it a "mission success story" after only five years. Complicating the situation (and assisting the ADO to make his case against continued funding) was that the final evaluation report was never written up by the outside USAID NRM specialist (a verbal assessment was the only feedback the mission received). The corollary lesson is the importance of documenting project activities - especially monitoring and evaluation work that can help shape and determine a project's ultimate effectiveness and impact.

3 It is important to establish a physical base or center in the most remote communities during the early years of forest management project work. From 1982-1984 Bururi Forest Project nursery production focused on pines and eucalyptus for plantation establishment on the eastern side of the forest. The agroforestry program was established in 1984 with household level survey work, conservation education and multi-purpose tree production. According to project design, nurseries and demonstration sites were first established on the eastern (for plantations/woodlots and agroforestry) and southern parts of the forest (woodlots/agroforestry), which were accessible by road. Access to the closest western-side communities was more than an hour and a half by foot in mountainous terrain from the project headquarters and closest roads. Some of the communities the project worked with were more than three hours away on foot. Household survey work was conducted in all western-side communities in 1984 and 1985. Satellite project nurseries and demonstration sites were to be established in these communities shortly after the preliminary survey work, but that activity never materialized once USAID funding stopped. Most of the current degradation is on the western side of the forest where the project never really established a physical base for development activities.

4 Multiple-use access zones and co-management schemes would have been a long-term vehicle to enhance conservation. In the 1980s Burundi's natural forest areas were limited and extractive utilization of forest resources was strictly prohibited in most cases. Fear of punishment for illegal activities worked for conservation in the short run when the INECN had the resources to effectively monitor and protect the natural sites. However, had proximate communities been integrated into the management process through contractual agreements with the INECN for specific uses, and had they been granted management responsibility in certain zones (co-management schemes), then those communities would have been more likely to resist destructive practices by outsiders and other community members once law and order weakened.

5 Balancing development resources between field and home office activities is key to the positive development of a new organization. Initially, the INECN benefited from good leadership and a solid core group of young field technicians. USAID was one of two donors to assist the INECN at that time. Peace Corps began working with the INECN a short time later and eventually other donor organizations increasingly supported the INECN. As the INECN grew so did the need for additional technical capacity in the field and at the headquarters. The Peace Corps Biodiversity Project maintained support both in the main office and in the field (primarily for conservation activities such as park planning and management, ecotourism development, protection systems, and inventory work) while the donors ensured development continuity on the ground (CRS, Caisse Francaise de Development, GTZ). An appropriate balance of field-level technical work, donor coordination, technical assistance, and staff development was being established within INECN prior to the civil war.

6 Transboundary initiatives originating in the late 1980s and continuing in the 1990s have kept Burundi as a participant in the international conservation movement. USAID and Peace Corps were among the first international organizations to take the risk of becoming involved with Burundian conservation and forest management given the country's poor international reputation in the conservation sector around 1980. Eventually, as fieldwork progressed and collaboration developed other donors, as well as the international conservation community, became more interested and involved in Burundi. Burundi's participation as a core member of the three Afromontane Conservation and Development workshops sponsored by USAID helped assure a commitment from the international conservation and development community that continues now despite the civil war. Within the USAID context, Burundi is a member of the Central African Regional Program for the Environment project. Understandably, forest conservation and management is not a priority issue for Burundi today - establishing and maintaining peace, stability, and good governance are the paramount goals. But once peace and stability are restored, attention will refocus on the issue of resource scarcity and forests. Given historical relations, USAID will be well positioned to assist Burundi in this regard.

THE GAMBIA

National Level

Background

Forest management in The Gambia, like in many developing countries in general and in Africa in particular, has been characterized by extensive state involvement with little recognition of the potential for positive long-term sustainable forest management, development and utilization through the involvement of local communities. Indeed, the Government of Gambia Forest Policy of 1976 was a broad statement of policy objectives that was not specific on orientations or instruments for achieving the objectives. It expected public involvement in the development of forest resources without providing an environment conducive for achieving this goal.

With the introduction of the state-owned Forest Park concept in the 1950s and the forestry legislation of 1977 (which vested the state with overall power over the national forest resources), the local populations that claimed traditional ownership of surrounding forests began to feel alienated. This resulted in their unwillingness to be involved in the protection and management of what used to be "their forests."

Because the communities no longer saw the forest as theirs they began to perceive all their activities in the forests as "illegal" with the consequence that forest utilization practices became increasingly damaging. Restrictive forest regulations further enhanced this behavior. Inevitably, the forest resource base of the country continued to deteriorate as a result of a lack of public concern, as well as an increase in population pressure and illegal activities.

The forestry personnel who were mostly involved in forest protection in accordance with the forest laws were deemed to be playing a policeman's role and were both feared and disliked by a significant cross-section of the local communities. Thus, their technical advice on forestry matters was not taken seriously by the target communities.

In the mid-1980s, when more was known about the state of the forests and the potential of natural forest management, the forestry department realized the futility of its efforts at protecting the nation's forest resources without the committed and willing involvement of local communities. The department also recognized the inadequacy of the policy under which it was operating, as well as the inadequacy of the Forest Act and Regulations. Consequently, in 1987, the forestry department in collaboration with the Gambian German Forestry Project (GGFP) drafted a "Proposal for the Introduction of Community Forestry in The Gambia." The first attempts at introducing community forestry began in 1990.

In 1992, the forestry department embarked on a process of a participatory policy review. The draft policy was presented to a workshop of multi-disciplinary policy level personnel as well as representatives of the local and traditional authorities who had the opportunity to propose certain changes and introduce new elements. Government approval of this policy was obtained in November 1995. The policy's broad objectives are to reserve, maintain, and develop forest land resources covering 30 percent of total land area, and to ensure 75 percent of such areas are managed and protected according to forest management principles. Moreover, the forest policy specifically calls for community forest management undertakings as well as private forestry. The policy also provides for community ownership of forest resources being managed by them and the benefits accruing there from, while calling on the government to provide technical assistance and guidance to the participating communities and individuals through the Forestry Department.

Supporting legislation for the new policy was developed with the same participatory process and a revised Forest Code was passed by Parliament in 1998. This legislation provides numerous new elements pertaining to tree and forest tenure, management, and utilization at the community and individual levels. The new legislation has been specially tailored to regulate the process of getting community forest ownership and securing the corresponding ownership rights. It also outlines the obligations of government and those of the communities, and it includes provisions for conflict resolutions and tax incentives. Key elements include: changing the role of forest agent from policeman to partner; full decentralization of natural resource management to communities; classification of forests into community, private and state forests to promote a broad-based participation of population in forest resource management; provision for co-management of gazetted forest and forest areas outside gazetted forests parks; requirements/specifications for the elaboration of management plans before exploitation of gazetted and community forests; and provision for sharing of revenues realized from sales of forest products from community managed forests (15 percent to National Forestry Fund and 85 percent to community).

Current Situation

Total forest cover in The Gambia is just more than 500,000 hectares, about 43 percent of the total land area of the country. However, less than 7 percent (30,000+ ha) of the total natural forest cover is under controlled management, either in state-controlled Forest Parks (13,000+ ha) or Community Forests (17,000+ ha). A 1997-1998 national inventory suggests annual increment of less than 1 m^3/ha per year for natural forests. State-owned Gmelina arborea plantations account for just over 2,000 hectares. Clear felling of these plantations since 1987 has yielded an average of some 2,200 m^3 per year (logs). There is one private forest plantation (100 ha).

The Forestry Department estimates the country produces around 17 percent of its total timber needs (excluding firewood). During the last 10 years an average annual output from state (natural) forest parks has been recorded of 1,500 m^3. This figure appears to be falling. This number does not take into account local/informal trade or usage of timber. In 1998 some 4,000+ m^3 converted timber was imported to The Gambia.

The forestry sector contributes around 1 percent to national GDP, but this does not take into account considerable informal trade in forest products or of the value of rural household consumption of fuelwood and other forest products. In particular, there is considerable use of hardwoods from natural forests for furniture, construction, and boats. There is also a significant trade in hardwood crafts for tourist industry.

Although Gambia's Forest Parks and Community Forests are relatively well protected, there is severe deterioration in the remaining 93 percent of forest resources not under controlled management; Gambia is estimated to have lost more than 30 percent of its forest resources between 1981 and 1988. The degradation of the forest condition is so severe that most closed forests have disappeared, leaving only a tree and shrub savanna of poor quality. High population density (108 persons/km^2) and associated impact (burning for agricultural clearing, consumption of firewood as main home fuel source, and overgrazing of livestock in the dry season) places a major strain on forest resources.

The dramatic decline in the country's forest resources has made government and other agencies acutely aware of the need to devise effective ways to stabilize and regenerate the country's natural resources. The principal engine for forestry sector action has been the program of technical


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assistance provided by the Gambian German Forestry Project (GGFP). In an effort to overcome earlier problems of distrust between forestry authorities and local, rural populations, the Forestry Department in conjunction with GGFP now promotes greater participation in forest management by villages and their inhabitants located in forest areas. This has been the genesis of a larger scheme to bring much of the Gambia's forests under "community management."

A Community Forestry Unit is now established in the Forestry Department and Community Forestry officers appointed to district stations to help administer and steer the new Community Forests toward new management responsibility. The effort has involved widespread education and consultation with rural communities and district administrations. Communities that follow the process through can now receive indefinite tenure and utilization rights (providing they observe the regulations) for their demarcated Community Forest area.

Although no formal "certification" process or policy has been pursued the thrust of the national policy and practice is based on sustainable forest resource management, regulated access to natural forests, and conservation of forest resources, especially fire protection.

As part of the process of establishing a Community Forest, villagers obtain legal agreements to allow tree tenure and all cutting has to be approved at the Divisional Forestry level and pass through the Divisional Commissioner's office (government representative for each of the country's five political divisions). According to most observers and participants, the community forestry program has been successful in a number of areas. It has effectively promoted the concept of conservation among villages in rural areas, where demand for agricultural land and the daily need for firewood for cooking apply constant pressure to forests. It has provided the opportunity for villages, through their community forest committees to benefit from the conservation and management of their own forest. An additional important benefit of the CF program has been the collection and sale of branch wood as fuelwood. Branch wood was in the past ignored for fuel as there was perceived to be enough stem wood available. Now this source is contributing about 10 percent of all fuelwood consumed in the country.

A growing number of community forests have formed themselves into local associations to coordinate marketing and seasonal work activities. To date, however, there is little in the way of serious exploitation of timber resources or other forest products.

The CF program has also led the decentralization initiative, both in terms of decentralization of natural resource management as well as democracy and governance. The Local Government Act has been approved and the local elections are completed, but forestry is "still far ahead" in terms of granting local access to the resource base. The current act has some forestry guidelines, such as all forestry activities will be directly controlled by the District Councils; central government

will be the "policy custodian;" and forestry field staff will directly report to both the District Councils and the Forestry Department headquarters in the beginning, but will eventually be under the District Councils. However, more work needs to be done and it is expected that it will take four to five years for much of the act to be implemented.

Despite the considerable progress being made in CBNFM in The Gambia, several challenges remain:

- The establishment of Community Forests puts more pressure/increased use on surrounding state (unclassified forests). Although the current legislation provides for the local use of surrounding forests, control and protection are difficult. Thus, there is a need to establish more community forests in these areas.

- It is still unclear how effectively the villages will be able to take on a more active management role in planting, thinning, or other silvicultural activities.

- The government continues to have difficulty in monitoring flows of timber across borders of the country and within the country.

- There are still some issues with regard to community difficulties in understanding the concepts of a management plan. In general, the more "advanced" a community is, the easier to design and implement a viable management plan. Thus, there is a clear need to keep management plans simple.

- Marketing of timber and other forest products is also a problem. Although many community forests produced high value logs on a sustainable basis, transport distances to market are often too great and the logs often end up being used as firewood. The Forestry Department has recognized that assistance with marketing must be given to rural Community Forests if sustainable and beneficial use is to be made of the forest resource.

- There is a general lack of modern processing facilities and marketing skills to add value to attractive woods for the tourist market. The forestry authorities operate two reasonably equipped sawmills, though output is low - both due to the age and type of equipment and high prices of local processing. Timber is processed from state (and sometimes community) forests for further small-scale furniture processing or construction. All private re-saw operations must be licensed. However, the standard of processing is low, due to the type of equipment used. Pit sawing is still common in rural areas.

- Another major issue is how to make timely use of interest in sources of tropical hardwood products from sustainably managed forests without incurring large costs of certification or monitoring schemes. Forest authorities are unenthusiastic about international certification processes. There has been some discussion about whether "in-country" labeling is absolutely necessary.

- Government resources are stretched and international funding may be reduced in coming years.

USAID Programs and Projects

The United States Agency for International Development (USAID) began its development assistance to The Gambia in 1957. Since 1996, USAID no longer has a mission in The Gambia. Its programs are monitored from the USAID/Senegal mission in Dakar. Current programs include:

Child survival. This program concentrates on improving health and nutrition by promoting improved infant and child-feeding practices, improved maternal health and nutrition, and improved home-based care of childhood illnesses.

Democracy and human rights fund. USAID supports a small grants program that provides technical assistance through indigenous organizations that implement small, short-term, highly targeted country-level activities in support of human rights and democratic institutions.

Food security. USAID assistance aims to improve household food security and women's economic empowerment.

In the past, however, USAID's involvement in the forestry sector was significant.

Through the $1.6 million Gambia Forestry Project (1979-86), USAID attempted to help the government move toward sustainable forest-based fuelwood supplies by promoting large-scale plantations and community woodlots. USAID also introduced more energy-efficient wood stoves and less wasteful sawmill technologies. However, as the mid-term evaluation points out, "…technologies introduced under the [USAID-funded] GFP project were inappropriate." Project designers chose the deciduous gmelina as the primary tree for project woodlots and plantations. But optimistic assumptions about seedling survival, growth rates, and local demand proved false in practice. Few if any Gambian community woodlots attained the level of sustained production anticipated by the project. In most cases, the trees failed to survive the early years when drought wracked the country.

USAID's environmental action program was designed to support existing Gambian natural resource programs; it recommended short, medium, and long-term strategies for balanced protection, restoration, and enhanced use of soil, water, vegetation, and genetic resources. The program was comprised of four local resource management strategies: (1) mixed farming, using the North Bank Division as an example; (2) forage management, using McCarthy Island Division; (3) biodiversity protection, using Kiang West District; and (4) natural forest management, using areas in the North and South Banks. In contrast to the Forestry Project, several national level interviewees stated that this activity laid a lot of the ground work for co-management in Gambia, particularly in Kiang West National Park.

In 1994 and early 1995, USAID's GreenCOM project and the National Environment Agency (NEA) designed and implemented an Environmental Award Scheme. As a result of USAID support, the NEA secured funding and successfully completed a second and third round of schemes without USAID assistance - and the program continues. One of the sites visited - Tumani Tenda Community Forest - had recently received an award of $7,000 for best protected community forest.

Other Donor Projects

The Gambian-German Forestry Project (GGFP) has been the supporting force behind much of the Gambia's forestry sector reform, and new focus on co-management. The GGFP was established in 1979 and is funded principally through GTZ of Germany. As well as establishing equipment and infrastructure for the FD, an inventory was conducted in 1983. Since then resources have been put into developing forest management models, culminating in 1994 in the Gambian Forest Management Concept. This merged forest park management and community management into one framework. The project has also conducted in-country training of forest guards and rangers and provided scholarships for professional development of senior Forest Department staff. Forest management activities and infrastructure were formally transferred to the FD in 1995. GGFP still supports the community forestry program and is involved in introducing the new Community Controlled State Forests. German support will continue through 2006, at which time support will more than likely be channeled through the European Community (perhaps the Support to Decentralized Rural Development Project) or via a regional or multilateral program.

Lessons Learned

1 Community access to forests is often more important than revenue generation. Contrary to what is often believed, it appears as though the communities were not seeing the forest primarily as a source of revenue. Access to forest ownership is their first motivation because they appeared to fully understand the importance of preserving the forest to meet their own needs (agriculture - "trees bring rain," fuelwood, grazing, animals closer to home, women closer to home for fuelwood) and to secure their future without interference from outsiders. In general, management plans for the community forests were very conservative - focusing only on the harvest of dead wood for local use. On the other hand, many communities were interested in non-intrusive means of gaining revenue from the forest, particularly ecotourism. (For example, Tumani Tenda Ecotourism Camp (and community forest) is the country's first ever "ecotourist" camp, which opened in early 1999 in one of the villages which manages their own community forest. The camp was planned and built by the community and aims to offer visitors an experience of living in an African village, with forest and river excursions. The camp generates about D120,000/year (US$60,000), supports two full time employees, and makes significant contributions to the village's development fund.)

2 CBNFM can strengthen community structure and help it to better manage other natural resources. As a corollary to the above, most beneficiaries interviewed said that the community forest process brought them "closer together." In fact, in some of the older sites, communities have decided to use the same mechanisms to manage other natural resources such as farm and rangelands ("all work revolves around the committees") and in some cases have organized themselves to form regional associations to rationalize their operations and to strengthen their positions during negotiations.

3 Marketing analysis and development for both timber and non-timber forest products is critical to CBNFM success. According to the GOG, "there is a need to manage community forests more like a business with more emphasis on marketing analysis and development if sustainable and beneficial use is to be made of the forest resource."

4 CBNFM can promote positive changes in community Forestry Department relationships. Whereas most communities said that they used to see foresters as adversaries who only protected the interests of people outside the forest, they are now starting to see them as partners who provide technical advice and help protect community resources. Comments such as "the advice of the FD is good," the FD "hasn't fooled us," and "before the forest was for everybody, but we now have a paper from the FD that says that the forest is ours" were the rule rather than the exception.

5 Forest protection increases when communities are empowered to manage and utilize their own forest resources. Self policing (and control of outsiders) appears to be working. All communities had developed bylaws that described the management plan and provided for sanctions for those who broke the rules. In most cases rules were enforced. "Forest hadn't been burned since they started the process but was burned this year by a beekeeper from another village. Have identified two suspects but are innocent until proven guilty. Have to go to the District Chief with the case." "Found someone from another village harvesting dead wood - confiscated wood and fined culprit." "Forest Committee Sales agent was fined D400 (US $20) for setting fire to the forest by trying to burn a python out of a tree."

From the GOG perspective, "there has been a substantial reduction in bush fires with community forests. Indications are that where forest is protected from fire, regeneration is generally good. It is possible that this regeneration could be assisted by a policy of enrichment with valuable species such as *Khaya senegalensis* and *Pterocarpus erinaceus*, but this needs to be the subject of financial/economic analysis."

6 CBNFM organization and management appears to work best when based on traditional structures. The functioning of the Forestry committee is based on traditional methods. In some CFs, village development committees become the forestry committees, in other places, forestry is a subcommittee of the VDC (along with agriculture, health, etc.). Regardless of the structure, the way the committee operates is based on tradition. (For internal problems/issues, the committee discusses with the entire village and the chief and imam serve as advisors/facilitators. For external problems, they may need to go to a higher level.) The only exception to tradition is that women now play a more active role in the committees, particularly with regard to money. "Women are more trustworthy (as treasurers)."

7 Tenure for CBNFM needs to be clearly established and understood. Forests can be managed by the population if, and only if, their ownership status is clearly established and understood. For forest resources that are managed on a comparatively long-term basis, the ownership rights should not be limited in time by the Government. The ownership should be permanent on the condition that the ownership communities are not depleting their forests. ("The end of the process is ownership - gazetted by the Lands and Survey Department.")

In the words of the GOG, "while it is true that forest degradation results from demographic growth, poverty, and poor education; it is basically a problem of institutions inhibiting constructive actions due to the lack of security of tenure and benefit for communities or individuals to manage natural resources which belong to the state."

8 Land conflicts between communities have to be addressed from the very beginning. Neighboring villages have to sign a statement acknowledging management of one village over a forest (some cases are blocked for years as a result.) The problem is usually that the first village to settle has customary rights of ownership, while newer villages may have problems in gaining access to and rights over forest resources.

9 Continuity and longevity of program support is critical to CBNFM success. Continuity and longevity of German support to CBNFM in the Gambia has undoubtedly played a critical role in Gambia's forestry sector reform. German bilateral support started in 1979 and will continue through 2006. Moreover, the Chief Technical Advisor to the project has worked on and off in Gambia since 1984. The importance of having professional staff in The Gambia and in Germany who have stayed with the program over a long period and who can collect and pass on the lessons cannot be overlooked.

10 CBNFM field experience should drive the policy/legislative reform process. In developing its CBNFM program, the FD chose first to focus/define policy and then develop the legislation required for policy implementation (matters relating to community involvement in forest management, tree and forest tenure, management and utilization procedures, etc.) all with broad stakeholder participation. This is a critical and "correct" step in CBNFM. (In contrast with many other countries in Africa and elsewhere, no distinction is made between policy and legislation and the latter becomes the de facto policy.) Moreover, field experience is driving the policy and regulatory process, so that policy implementation (and adherence to rules and regulations) has a much greater chance of success.

GUINEA

National Level

Background

Guinea, unlike most West African countries, is endowed with considerable natural resources. It enjoys abundant land with fertile soils, extensive water resources, and adequate annual rainfall. Guinea's extensive mineral resources include one third of the world's known bauxite reserves, high grade iron ore deposits, as well as untapped reserves of diamonds, gold, iron ore, and other precious metals.

Forest resources, although under pressure from population growth and itinerant agriculture, are also abundant with total forest area at approximately 13,186,000 hectares (53 percent of total area) distributed into four major forest types: mangroves (250,000 ha or 1 percent); dense humid forest (700,000 ha or 2.8 percent); dense dry forest (1,600,000 ha or 6.5 percent); wooded savanna/other (10,636,000 ha or 43.3 percent).

Management of these forest resources can be categorized by three distinct periods: pre-independence, 1958-84, and 1984 to present.

Pre-independence. This period is characterized by Colonial laws aimed at putting order into the management of forests. The system was based on the French forestry code from 1935 ("administration classique francaise") which emphasized control and preservation of resources. Communities were restricted access and use in both classified and unclassified forests. However, the system "worked well" as local populations were not all that concerned about the repressive nature of the code. There was very little pressure on the forests, given good rainfall combined with the fact that the "village space" was usually enough to satisfy local needs.

1958-1984, the First Republic. Following French withdrawal at independence in 1958, Guinea languished from 1958 until 1984 under a feudalistic socialist regime, which collectivized agriculture and repressed private initiative in commerce and industry. Under Sékou Touré, Guinea suffered a repressive rule, which did not allow for the development of any autonomous political or social institutions. The ruling party and the state became one, and all organs of the state were subordinated to the executive, which, in essence, was President Sékou Touré. High-level corruption became the norm. Forestry during this time was characterized as "anarchy"; the implicit policy was to "let people do what they wanted to do." While people were supposed to work with the State to protect the forests, in reality, the rural population had no interest in protecting State forests and worked clandestinely (or not) to clear them and increase agricultural holdings. Although the role of the forester was to control cutting (mainly through 'repression' and police action), given the implicit policy and too few field agents, many reserve forests were severely degraded. (Eighty percent of Souti-Yanfou Forest Reserve was cleared during this period, and remained so until the late 1990s.)

1984 to present. With the establishment of the Second Republic in 1984, Guinea opened itself to the Western world in search of capital, goods, and services with which to construct a modern, democratic state. The Government's market-oriented reform program abolished collective farming and compulsory marketing through state agencies. Farmers and traders could once again market their products freely.

Reforms in the forest sector were no less drastic and laid the groundwork for moving the Forest Service (National Directorate of Waters and Forests - DNEF) from a "paramilitary" organization to a true civil service. The role of agent changed from policeman to partner ("We used to be policemen, we are now educators."). Changes in roles were preceded by changes in attitudes at the highest levels. Senior personnel (as well as field-level foresters) saw that 'repression' was not halting destruction of the forests. They did not have enough agents to police people, so they decided that they had to work with people as partners. In essence, the DNEF went from the use of parastatal structures to protect the forest to partnerships and building up community-level structures.

Current Situation

Guinea currently has: 156 classified forests (forest reserves) covering 1,186,611 hectares or roughly 4.38 percent of total area; two national parks, Haut Niger (54,000 ha) and Nyokolo-Badiar (38,200 ha); six coastal RAMSAR sites (230.75 ha); and two Biosphere Reserves (Réserves de la Biosphère NIMBA and ZIAMA). These areas together account for only about 14.7 percent of total forested area.

The deforestation rate is estimated at 30,000 hectares per year, with the majority (26,000 ha) occurring in the humid dense forest zone. (Some estimates place the deforestation rate as high as 90,000 ha/year with 40,000 ha in the forest zone.)

Forest degradation is a result of: population pressure (growth rate of 2.6 percent per year); slash and burn agriculture (39 percent of forest area subjected to itinerant agriculture); uncontrolled grazing, burning, and hunting; clandestine exploitation of timber and firewood; lack of forest service resources for management or protection; and the influx of refugees from surrounding states.

Wood production ("exploitation") is estimated at 8,000,000 m^3 round wood equivalents per year with 95 percent used for energy.

Given the high rate of degradation/deforestation, in 2001, DNEF published a policy paper designed to provide a concise description of its commitments to policy and practice as agreed under the National Forestry Action Plan for Guinea (PAFN-Guinea). The development strategy outlined for the next 25 years identifies the following priority objectives:

- Enhanced knowledge of the existing forest resource base
- Sustainable management of the classified forest domain of the state and of the collectives
- Management of watershed areas
- Operations for production through reforestation and the promotion of technology
- Conservation of biodiversity and the protection of fragile ecosystems
- Development of forestry within the framework of village land-use planning
- Promotion of community and private forestry
- Establishment of a forestry research system

Furthermore, in recognition of the ineffectiveness of the old "command and control" approach to forest conservation, the GOG enacted a new Forest Code, initially released in 1990, subsequently modified and enacted officially into law by the National Assembly in 1999. This new law: (i) explicitly recognizes the need to engage the rural population in a participatory management process for both classified and community forests; (ii) recognizes the need for forest management plans to be prepared in collaboration with the local population; (iii) specifies that management plans should balance the socioeconomic needs of the population with the need to protect resources; (iv) makes provision for devolution of forest control to Guinea's elected Rural Councils with each elected committee supported by a state forestry service representative; and (v) recognizes land contracts.

For community forests, the Director of the DNEF must sign a dossier of request from the groupement (community group) concerned. The dossier requires that those with traditional tenurial rights over parts of the forest be identified and give their consent. The forest must be mapped, a basic forest inventory undertaken, and a management plan developed which shows a zonation to be agreed in conjunction with the Chef de Cantonnement Forestier (District Forester). Typically this would include priority zones for tree crops (coffee, oil palm), tree enrichment, water source protection and timber exploitation. It also requires that the group form a management committee (7-8 people) to formulate a village development plan that forest revenues can feed into. Before the request is submitted to the National Director, it needs to be approved and signed by Prefectoral representatives. Trees are the property of the group, and decisions to fell are made by the group's management committee, although it must make a request to the local forestry service for permission to fell. This would only be refused if it contravened the previously approved forest management plan. Once a group has a permit, it can negotiate with a timber contractor to carry out the felling, and can use contractors who are not 'approved' by the Prefecture or the Cantonnement.

Although co-management is not specifically mentioned in the Forest Code, procedures for the co-management of classified forests have been elaborated by the DNEF with donor (USAID and GTZ) support. Generally, these procedures are similar to those for community forests with some exceptions. First, classified forests have to meet certain criteria to be considered for co-management. Second, as classified forests are generally much larger, contain more valuable timber and non-timber resources and have more "communities" involved, more attention is accorded to socio-economic studies and resource assessments/inventories, and more detailed management and work plans. Provision is also made for the establishment of an inter-village forest committee. Finally, the co-management agreement is put into the form of a contract between the Forest Committee and the DNEF.

In addition to its innovative work in CBNFM, the DNEF has suspended the operations of all logging concessions in the forest zone, and has developed a logging concession model that proposes to extend logging leases from five to 25 years, prohibits logging during the rainy season, and protects certain rare species except for artisanal uses.

Despite the considerable progress being made in CBNFM in Guinea, several challenges remain:

- Several DNEF field agents felt that DNEF has been marginalized by donors in spite of the authority for co-management coming from DNEF. Part of the reason for this has been a shift in donor (particularly USAID) emphasis on using NGOs for implementation instead of DNEF. As one DNEF agent stated, "DNEF agents do not receive as

much logistical support as they did in the first phases..in the current phase more resources are going to Guinean NGOs than the Forestry Service." Although this is a common theme in many developing country forest services, it merits some attention at the national and donor level as field agents are critical for technical, legislative and "awareness" input.

- The Director of DNEF pointed out, "as DNEF moved to a civilian service, it did not receive all the training required to allow it to be a full partner in sustained-yield forest management and CBNFM (e.g., the Forestry School was weak on forest inventory and forest management planning, skills necessary for putting into place a forest management plan)."

- The legal status (i.e., "personne morale") of the Forest Committees and village "caisses" (banks) is unclear. Some argue that they have no legal status (official classification) while others argue that they do. The issue needs to be clarified among concerned parties and action taken to formalize the committees and caisses if needed.

- Insecurity from Liberia and Sierra Leone has "closed part of the country's bread basket." Inflation is at 7.1 percent compared to 5 percent a year ago, and there has been a significant slow down on investments. All of this has a negative impact on CBNFM, as rural populations seek more resources from the forests.

- "DNEF needs a better forest inventory, particularly outside of classified state forests, as there is much concern that these forests are disappearing. Additionally, there is a need for more rational forest exploitation, particularly in the forest zone; quotas aren't followed, current short-term leases don't encourage investment, 'cahier de charges' (logging contract conditionalities) are neglected, and DNEF does not receive the taxes from logging."

- The level of suspicion between DNEF and the population, which was compounded by the experiences produced under the Sékou Touré Presidency, continues today. Communities continue to need evidence that if they invest in better forest management, they will have rights to products of those investments.

- Although forestry has taken the lead in decentralization and devolution of power, there is still considerable conflict between forest, decentralization and land codes.

- There is a critical need to get local administration (prefets and sous prefets) more involved in the program; their participation has been somewhat marginalized in the past.

- Government resources are stretched and international funding may be reduced in coming years.

USAID Programs and Projects

USAID has a long history of involvement in the Guinea's forestry sector, and is on the cutting edge in Africa in terms of community-based natural forest management. Indeed, the PEA states, "… the continuing contributions of USAID over the years, related to community management of natural resources have amply supported the policy shift towards people and their participation in the management, protection and conservation of the reserved forests of the country."

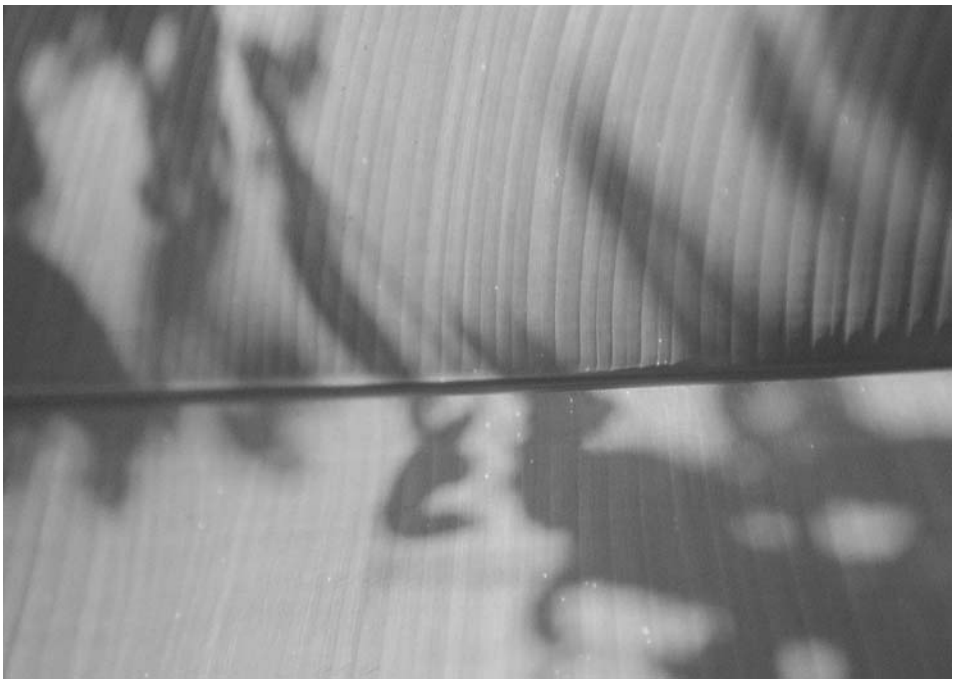
A brief history of USAID's contribution follows.

Natural Resources Management (1992 to 1996). Deforestation in the Fouta Djallon region of Guinea was cited as a cause of decreased water flow in the headwaters of several major West African rivers. This project worked to increase sustainable agricultural and value-added production and to improve the management of natural resources in three target watersheds: Dissa, Diafore, and Koundou in the Fouta Djallon Highlands. The project: (i) introduced new technologies in agroforestry, watershed management, and conservation systems; (ii) disseminated existing technology from research results; and (iii) commissioned local institutions to develop and test appropriate technologies. The project trained regional watershed management units in credit management, beehive and stove construction, and creating private tree nurseries. It also identified markets for new community enterprises and promoted activities such as nurseries, honey, wax, and soap production, and indigo dyeing. In addition, numerous counterpart officials from the DNEF and other institutions received technical and graduate degree training throughout Africa and in the United States. At the site level, the project worked to: reforest and/or protect (mise en defense) areas around natural springs; establish contour hedgerows and rock lines to reduce erosion; increase soil fertility through inorganic fertilizers and agricultural technologies; and establish firebreaks and alley farming with local resources user groups.

Guinea Natural Resource Management (1997 to 1999). This project was a transition activity between the above project and the development of USAID/Guinea's Natural Resource Management Strategic Objective. The objective of the project was to improve the management of natural resources in three upland watersheds while empowering village-level organizations to ensure project sustainability. The project helped create village-level Natural Resources Management Committees and assisted with the implementation of natural resource management plans developed by the committees. Other activities included training in resource management principles, environmental education and awareness programs, land ownership workshops, and project monitoring and analysis. The project finalized the first co-management agreement between the DNEF and a group of villages located on the edge of state-owned forests (Nialama).

Natural Resource Management Strategic Objective (1998).To help Guinea protect its fragile agro-ecological areas against accelerating environmental degradation, in 1998 USAID initiated the Natural Resource Management Strategic Objective. This SO is specifically intended to extend application of appropriate agricultural and natural resource management practices, increase income-generating opportunities for resource-poor rural households, and help Guinea manage its forest resources and exploit its agricultural potential while still conserving its biological diversity. This SO aims to increase the use of sustainable natural resource management practices through: (i) development and improvement of community-based organizations' capacity in natural resource management; (ii) an increase in farm productivity; (iii) an increase in small and micro enterprise activities, and, (iv) establishment of a favorable policy environment which empowers local populations to manage their natural resources and promotes long-term investments in conserving the natural resource base. This Strategic Objective is the principal US Government contributor to the Mission Performance Plan goal to "encourage community involvement in the conservation of natural resources and biological diversity in agro-ecologically fragile zones."

Guinea Expanded Natural Resource Management (ENRM, 1999 - 2004). The centerpiece of USAID/Guinea's Natural Resource Management Strategic Objective is the six-year Expanded



Thomas Fattori/Chemonics International

Natural Resource Management (ENRM). The objective of this project is to assist farmers and community groups in investing in more profitable, less destructive agricultural practices by improving natural resource management capacity, increasing sustainable farm production and productivity, and developing income generating, non-farm small enterprises. The project works with communities to empower local decision-making for agriculture marketing and production, improved natural resources management practices, and non-farm income producing activities. By providing information and new skills, it is hoped that project participants can make informed decisions to sustain and protect their livelihood and resource base. The project supports this approach with: extension and training materials, simplified land use agreements and forest co-management plans, and small enterprise development. The project is also creating institutional strengthening models targeting the Guinean Forest Service, community-based organizations, and local nongovernmental organizations.

The following is a summary of achievements in natural forest management attributed to support from USAID/Guinea:

- USAID was responsible for introducing the co-management concept in Guinea (co-management idea first noted in McLain's work under the USAID-supported Land Tenure Study Program in 1993/94 in Nialama);
- 85 forest groups have been established to manage 5000 hectares of community forests, with another 40 groups in various stages of the process;
- Five classified forests (87,000 ha) are under (or are approaching) co-management: Souti-Yanfou (11,000 ha); Nialama (10,000 ha); Bakoun (28,000 ha); Sincery Owsa (14,000 ha); and Balanyan (24,000 ha);
- Land use agreements/contracts have been established between 30 landowners and land-users (USAID was also responsible for the introduction of the land use contract concept);
- There are currently 1,655 hectares of agricultural land under cultivation employing sustainable agriculture techniques; and
- The mission has assisted with the preparation of 57 community-based natural resource management plans, which include provisions for community forests;

Lessons Learned

1 Sustainable forest management strategies need to look beyond benefits obtained from timber. Income generation from both agriculture and co-managed and community forests is the "greatest challenge." The "link between income generation, agriculture and NRM/CBNFM has become absolutely essential for achieving program impacts." In particular, more attention needs to be paid to markets, particularly for under-utilized timber species and non-timber forest products in the classified forests, in addition to agriculture intensification and improved agriculture marketing as a means of relieving pressure on the forest. Additionally, communication of market information is difficult in Guinea, and the project needs to think about this in more in detail.

2 The importance of negotiated agreements. At all sites visited, people and communities around a forest resource are coming together, in some cases for the first time, to develop rules to co-manage and use common or trans-boundary forests. In some cases, new institutions are arising that are sometimes more representative and transparent than the traditional systems and that are leading to new alignments of authority in the community. In particular, land contracts are becoming the rule rather than the exception in Guinea. Land contract work started out as a way for communities and owners to come to an agreement about protecting water sources. Over time, contracts have evolved to agreements between owners and other individuals or between owners and cooperatives (especially women), and now, even traditional relationships are based on contracts. "Negotiated contracts have mitigated tension" in a lot of areas.

3 CBNFM increases the demand for literacy. As a direct result of negotiated contracts, many CBNFM communities named alphabetization a key priority and in several cases, communities were paying for adult literacy classes with their own resources citing "increased ability to manage their affairs and village agreements" as the primary reasons.

4 Forest protection increases when communities are empowered to manage and utilize their own forest resources. Self-policing (and control of outsiders) appears to be working. All communities have developed bylaws that describe the management plan and provide for sanctions for those who broke the rules. As examples, the Forestry Committee at Nialama has a "commission suivi des activities" which is responsible for monitoring access. This commission discovered that one village had exceeded its allocation of agroforestry land in the forest, and proposed an agroforestry ban on the village.

5 CBNFM can promote positive changes in community-forestry department relationships. Community attitudes toward the DNEF appear to be changing. Whereas most communities said that they used to see foresters as adversaries who only protected the interests of people outside the forest, they are now starting to see them as partners who provide technical advice and help protect community resources. As one community member stated, "now there are no problems (with the DNEF), we have strict control. In the past, there were lots of problems; forest guards were the source of a lot of corruption often in collaboration with others in the forestry department, or 'notables' in Labe." Even the forest agents themselves admit that "on n'est plus police forestière, donc il n'y a pas de corruption." (We are no longer forest police so there is no corruption now.)

6 Motivation is a critical factor in CBNFM success. There appears to be a very large difference in communities' motivation to participate in community forests vs. their motivation to participate in co-management of classified forests. Communities actively seek out DNEF assistance to put village areas under protection (mise en defense) and making it illegal to cut (for both insiders and outsiders). In particular, they are doing this to protect water sources, to serve as a village

shelterbelt, and to maintain shade for livestock. Without exception, communities interest in participating in co-management arrangements is based on their interest in obtaining additional agricultural land though the agroforestry (improved taungya) plots.

7 The attitude and approach of the Forestry Service leadership has been crucial to CBNFM program success. The fact that the DNEF leadership has championed reforms and has been out in front on trying new approaches has also been critical. (All three DNEF Directors going back to the late 1980s have supported reforms such as decentralization and devolution that have been resisted both within and outside the Forestry Service.) In some cases, the DNEF moved ahead of the rest of the government in decentralizing authority,e.g., the co-management concept was approved in 1996 even before DNEF had official support of the National Assembly.

8 CBNFM provides a focal point and a sound economic basis for decentralization and democracy and governance. Negotiated agreements and rules, and more representative and transparent institutions to manage and use forests, were the rule in communities visited rather than the exception. Forestry initiatives are on the cutting edge of democratization and good governance in Guinea, and are out in front of the formal decentralization process in devolving authority and responsibility away from government to rural communities.

In economic terms, communities are now better prepared to recognize the links between forest resources (including agricultural land) and livelihoods; most are pursuing a range of economic activities from the forest for both home use and some commercialization. As one community stated, "our parents were not happy that forest was classified (and thus placed outside of normal agricultural use), but we're now happy that it has been classified; otherwise, there would be nothing left." More importantly, this same community stated, "before, all receipts from the forest went to government without any transparency...today, some of the revenue is staying in the community. This combined with secure user rights in the forest more than compensates for the loss of agricultural land."

9 CBNFM is most effective where it has active local government participation. Local government (prefets and sous prefets) needs to be part of the Forestry Committees. In general, Forest Committee members knew their roles and responsibilities, as well as the role of other institutions as specified in the (negotiated) management plan. The most important point was that in the event of a conflict that could not be resolved locally, they could "go to the sous prefet" who is "very supportive." He brings out the management plan and cites it when necessary "you signed this so it's your problem." In another Nialama case, outsiders from Labe came to Nialama to cut trees, but the sous prefet intervened on the Committee's behalf with the signed agreement/management plan.

10 Forest committee management structure is critical to CBNFM success (getting the villages more involved). Forestry committee functioning is based on traditional methods, but these may need some modification. Traditionally, big decisions are made and conflicts resolved ("regler les affaires") on Fridays after prayers, with village chief and elders (sages). Forest Committee structure for resource use and access is based on this traditional structure; committees are led by the committee president, and advised by members, chief, and elders. In some cases, the sous prefet participates and supports the committee. The only exception to tradition is that women now play a more active role in the committees, particularly with regard to money. "Women are more trustworthy (as treasurers)." There are, however, several issues with regard to the committees:

From a committee member's perspective. "One of the main problems is lack of support for the committee from the population." The population thinks that members of the committee are paid by the project, and as such, do not require local support. Being a committee member "takes a lot of work," for which no compensation is received. (The member expressed the need to be "prise en charge" (supported) and the fact that there are no incentives (compensation) to participate in the committees. He added that "this may influence the success of the project in the future.")

From USAID and ENRM's perspective. "In the past, forest committees were not very transparent or participatory nor did they deal with the economic aspects of the forest (e.g., a process for dividing up benefits). Part of the problem was the two-year hiatus between USAID projects. There are some problems with the present structure (e.g., elections, participation, committees do not want to share power, local government is not involved/asked to participate, etc.)" Moreover, there is no statute governing the committees' legal status. Thus, ENRM wants to replace the existing forest committee structure but internally, the project has not yet agreed on the best mechanism.

11 CBNFM field experience should drive the policy/legislative reform process. In developing its CBNFM program, the DNEF chose first to focus/define policy and then develop the legislation required for policy implementation (matters relating to community involvement in forest management, tree and forest tenure, management and utilization procedures, etc.) - all with broad stakeholder participation. This is a critical and "correct" step in CBNFM. (In contrast with many other countries in Africa and elsewhere, no distinction is made between policy and legislation and the latter becomes the de facto policy.) Moreover, field experience is driving the policy and regulatory process, so that policy implementation (and adherence to rules and regulations) has a much greater chance of success. As Guinea's Director of Forestry stated, "field experiences influenced how the regulations (textes d'application) were developed, particularly on who would assume authority and responsibility," and "policy is now more important than the law."

12 Continuity and longevity of program support combined with the proper mix of technical assistance skills are critical to CBNFM success. Continuity and longevity of USAID support to CBNFM in Guinea has undoubtedly played a critical role in Guinea's forestry sector reform. USAID bilateral support started in 1992 and will continue through 2004 if not longer. During this period, people had a chance to try promising approaches and build upon lessons learned; it was a "work in progress" that provided continuity both in the field and in USAID/Washington, which went beyond the life of any strategic plan. Another key has been to have the technical assistance team in the field; policy dialogue has been in the field and not in the Ministry, but now "there is a need to move the process to the national scale." Finally, an underlying assumption of the ENRM project was that all components would work together to achieve the result. However, this has proven difficult, and suggests the need for the right mix of people and technical skills from project inception.

13 Programmatic Environmental Assessments (PEA) are a valuable tool for CBNFM. The "Programmatic Environmental Assessment of Co-Management of Reserved Forests in Guinea," has helped considerably with project implementation. In particular, the Environmental Planning Checklist for Co-Management of Reserved Forests was critical for improving project performance.

RWANDA

National Level

Background

Rwanda is a small mountainous country located in East/Central Africa. It is surrounded by Uganda on the north, the Democratic Republic of the Congo on the west, Burundi on the south and Tanzania on the east. Rwanda was part of Ruanda-Urundi, a territory that was managed by Belgium as a colony until granted independence in 1962. Prior to and just after independence, Rwanda's transition to nationhood was marked by ethnic violence. Civil strife in 1959 led to the migration of tens of thousands of Tutsi to neighboring DRC, Uganda, Burundi, and beyond. Rwanda was governed by Hutu group from independence until the civil war of the mid 90s.

In October 1990, soldiers from the Ugandan military (comprised mostly of ethnic Rwandans) attacked Rwanda in an effort to change the Government of Rwanda's policy that did not allow Tutsi Rwandan refugees to return to Rwanda. The civil conflict continued until April 1994 when President Habyarimana was assassinated. This action set off a series of events that rapidly culminated in the mass killing of ethnic Tutsis and some "moderate Hutus" that were known to favor national reconciliation with their Tutsi countrymen. In all, between 800,000 and one million people were killed during the next several months in a well-organized and systematic attempt to eliminate the Rwandan Tutsi population.

Eventually, the perpetrators of the genocide (Interahamwe) fled Rwanda, with many settling in neighboring DRC. Since that time the Rwandan government has focused on security issues (Interahamwe attacks from the DRC have continued for years) while rehabilitating and reconstructing the country after the war. Rwanda subsequently became directly involved in the protracted civil war that has paralyzed neighboring DRC.

Forest and park management in Rwanda has a long history of donor support. The Swiss were very active in the forestry sector since independence. Rwandan foresters were trained in Switzerland and the Swiss supported some of the earlier forestry field activities. The French, Belgians, World Bank, and the European Community have also supported Rwandan forestry. In the early 1980s, a combination of Intercooperation Swiss, the Caisse Francaise de Development, the World Bank, and the EU developed the long-term management strategy for the remaining natural forest areas in Rwanda. This strategy focused on management plans built around forest inventories, commercial timber exploitation, and plantation establishment (as protection buffers and as production zones for wood fiber).

The strategy also called for clearing more than half the hectares on one of the four remaining high-altitude natural forests for the establishment of fuelwood plantations and the creation of pasture for European dairy cattle. In this regard, the Gishwati Forest Reserve (about 28,000 ha), was reduced to less than half its original size for the fuelwood plantations and pastureland. This project, funded by the World Bank, is generally regarded as one of the regions more ill-conceived development activities. In addition to removing more than 15,000 hectares of valuable watershed forest, thousands of resident Batwa were removed from the forest without compensation. Furthermore, the dairy component (based on the creation of pastureland) was eventually exposed as little more than an effort to increase grazing access for cattle owned by the ruling elite that originated from the region.

Until the 1980s, all natural forests were under the direct management responsibility of the Department of Water and Forests within the Ministry of Agriculture. At that time illegal logging was on the increase, and the Office of Rwandan Tourism and National Parks (ORTPN), which was noted for its superior protection and surveillance programs was given management responsibility of Parc des Volcans in northwest Rwanda. Parc des Volcans was also the site of a planned commercial agricultural production project that could have endangered the integrity of the park. In the mid 1980s reports of illegal logging in the Nyungwe Forest Reserve (some of which involved Forest Department personnel) prompted the President to assign ORTPN protection responsibility for Nyungwe as well. ORTPN has maintained protection authority over both forests since that time.

While illegal logging was reduced considerably, ORTPN guards assigned to Nyungwe were busy with a range of other illegal activities. Nyungwe (and other forests in the region) has been the site of gold mining for decades. Sapphires were also found in the vicinity of Nyungwe and coltan exploitation has become a more recent conservation challenge. In the late 80s Nyungwe made international news when marijuana plantations were found in a remote sector of the forest by ORTPN guards. The military was called in to destroy the plantations and several local leaders were arrested and named as the organizers of the operation. It was believed that the local officials had high-level contacts in government because marijuana produced in Nyungwe was primarily destined for international markets.

In the 1980s there were two principle donors assisting Rwanda in biodiversity conservation, the Belgian Cooperation Development Agency and USAID. Belgian assistance focused on the management of Akagera National Park as well as providing long-term technical assistance and material support for the ORTPN headquarters. USAID support was channeled through international conservation NGOs working in Parc des Volcans (African Wildlife Foundation, Mountain Gorilla Project) and the Nyungwe Forest Reserve (Wildlife Conservation International, the Nyungwe Forest Conservation Project). USAID also provided support to the development of the Karisoke Research Center (in Parc des Volcans).

In the 1980s and early 1990s Rwanda was internationally known for its considerable conservation achievements. The country had one of the highest ratios of protected areas to land area of any developing country. This was especially noteworthy since Rwanda is the most densely populated country in Africa. The well-structured and ecologically sound gorilla tourism program became a model for primate habituation and viewing in the region, as well as a source of considerable ecotourism revenue. As Rwanda became more internationally recognized for its conservation achievements, donors and NGOs became more heavily involved with support. By the late 1980s Rwanda had one of the highest donor assistance programs per capita of any country in the world.

Current Situation

The civil war and genocide have had a devastating impact on all levels of Rwandan society. With considerable international support, Rwanda has managed to establish law and order and move the rebuilding process forward. Resources are increasingly programmed for development and enterprise activities as opposed to emergency relief. Rwanda's borders have been secured, for the most part, and rebel operations within the country have been brought under control. Forests that were used as bases for rebel operations are now secure for work and ecotourism development.

Nevertheless, since the mid 1990s, Rwanda's extensive protected area system, including some of its natural forests, has been severely degraded. First, Akagera National Park has been reduced to roughly 30 percent of its pre-war size. The sections declassified have been mostly in the north and western areas where Rwandan refugees have resettled with their livestock. Of the 4 remaining high-altitude forests, two have been virtually eliminated. The remaining blocks of the Gishwati Forest Reserve, which was the focus of the World Bank-financed plantation and pasture project in the 1980s, has also been used for resettling returning refugees. Most of the remaining natural forest areas have been divided up, cleared, and converted for agriculture. The Mukura Forest Reserve, which was heavily degraded before the civil war, has little remaining vegetation.

Given the events of the 1990s, the most surprising development is the relatively good remaining condition of both the Parc des Volcans and the Nyungwe Forest Reserve. Poaching larger mammals, apart from primates, is still a problem in both forests. For the Parc des Volcans, the status of the mountain gorillas has been closely monitored since the outbreak of civil war by a number of national and international conservation groups working in Rwanda, Uganda and, at times, the DRC. Their presence has helped minimize the damage to the park.

The Nyungwe Forest Reserve does not generate as much international attention as Parc des Volcans. However, due to the efforts of local employees of the Nyungwe Forest Conservation Project, who continued to work despite the absence of law and order (and salaries for quite some time), and the positive impact the project's activities had on the local communities, the forest suffered relatively minor damage. Ecotourism has begun once again in both forests.

Direct community involvement with the management of protected areas is minimal in Rwanda. Interviews with ORTPN and NGO officials indicate that the conservation community is aware that communities need to participate more directly in the management of these areas. Where to begin and how to go about it, however, is still an issue for debate. The multiple use access zone approach in neighboring Uganda was mentioned as a possibility, but it was quickly noted that there is one group in the Rwandan conservation community (nationals and internationals) that are against any community access to national parks. They believe that once communities gain a bit of access the entire process may be impossible to control. Others believe that they have no choice; protection alone is a short-term solution that must eventually be augmented by community self-policing systems if forest protection is to be viable over the long-term. It was noted that decentralization is a very recent program in Rwanda, and communities are still at a disadvantage relative to outsiders that would exploit the forest resources for their own advantage.

Interviews with community members around Nyungwe provided insight into their perceptions of project activities and the conservation of the forest. Three issues were mentioned by all community groups in relation to the management of Nyungwe: protection, income and education. All communities agreed that they do not view the forest as belonging to them. It is largely for outsiders, researchers, and for wildlife conservation. They also noted that the forest is well protected and that community members do not want problems with the ORTPN over forest use.

The same communities also agreed that they value the forest more now than they did prior to project work and the development of ecotourism. Many residents were directly employed by the projects that were operational prior to the civil war while others benefited from ecotourism (employment, increased service opportunities). They cited income and acquired skills as direct benefits they received from the forest, and stated that they would like to see project work and ecotourism development become active once again. All communities noted that conservation

education programs have also changed how they view the forest. They have always valued the forest for its goods (bamboo, wood, game meat, medicinals) and services (water), but they now have a more comprehensive understanding of how destructive practices can eliminate these if not used in a sustainable manner. Nevertheless, all communities would like greater access to the forest.

USAID Activities

Parc des Volcans was the first recipient of USAID support, followed by the Nyungwe Forest Reserve. In and around Parc des Volcans, USAID supported three separate but related activities that included the Mountain Gorilla Project, Karisoke Research Center and the Ruhengeri Resource and Analysis Management project (RRAM). Together, these three projects addressed a range of issues and activities. The Mountain Gorilla Project assisted the ORTPN with the management and oversight of gorilla tourism, park protection, staff and guide training and also a conservation education program for local communities. Karisoke is the research center established within the park in the early 1970s for the study of mountain gorillas. Eventually the research agenda at Karisoke was diversified, and it developed an international reputation that attracted researchers and students from many different parts of the world. The RRAM project focused on soil conservation and agricultural productivity in this, the most densely populated part of Rwanda (which was also adjacent to the Parc des Volcans). RRAM employed a combination of development and conservation technologies to conserve natural resources and increase on-farm production.

In 1987 USAID Washington awarded a grant to Wildlife Conservation International for the Nyungwe Forest Conservation Project. This activity was designed to compliment the multi-donor forestry projects already underway at Nyungwe by concentrating on forest conservation through ecotourism activities, the development of a conservation education program, and biodiversity research. The project evolved out of a primate research activity that was initiated several years earlier. As the project was directly linked to the ORTPN, a considerable amount of project time and resources were also focused on monitoring illegal activities and protection measures. This project also worked closely with a USAID funded fruit dispersal study of Nyungwe implemented by the University of Wisconsin.

Projects in both forests worked at improving the coordination and information exchange with other forest conservation activities in the region. In 1989 the Nyungwe Forest Conservation Project and ORTPN hosted the first International Workshop for the Conservation of Afromontane Forests (in that region). Participants included managers, technicians, and researchers from other projects in Rwanda, Uganda, the DRCongo, and Burundi. Nyungwe is a transboundary forest; in addition to the 100,000 hectares located in Rwanda, Nyungwe is part of the montane forest block that includes the Kabira National Park in Burundi (40,000 ha at that time). As with other USAID activities, funding and support to the Nyungwe project ended during the period following the genocide.

Peace Corps Rwanda was actively involved with the NRM sector as well. In this regard, Peace Corps assigned NRM volunteers to all of the USAID conservation projects managed through the ORTPN (both at Nyungwe and Parc des Volcans). Volunteers worked mostly with conservation education programs or ecotourism development, and they significantly contributed to the evolution and development of all of the projects.

Tori Paide/Chemonics International

In addition to field-level projects, USAID also assisted the Government of Rwanda with the development of a National Environmental Action Plan (NEAP). In that regard, and in an attempt to consolidate the missions existing NRM conservation activities (which included agroforestry work with ICRAF's East Africa Highlands Initiative and Auburn University's fish culture research and development program) the mission awarded a contract to a for-profit firm to manage the entire program.

The final NRM evaluation report is one of the only documents related to any of the NRM program activities that the study team could locate in Rwanda (and that was generously provided by someone outside the mission). Following the genocide when the mission was reopened, virtually all of the mission's documents were destroyed. Although every focus country mission is missing some documentation related to forestry and NRM programs, the case of the Rwanda mission is the most extreme.

Since the mission reopened in the mid 1990s, activities have focused on emergency relief, health, reconciliation, and governance. The mission has more recently moved back into the agricultural enterprise development sector. During the next few years the mission may consider becoming once again involved in NRM. In the meantime, efforts should be made to reconstruct the NRM library with copies of reports from NGOs, contractors, and university partners. The institutional memory of NRM at the mission has virtually disappeared due to the absence of documentation, the turnover of expatriate staff, and the loss of mission Foreign Service National) personnel during the genocide.

The following list of activities summarizes contributions USAID Rwanda made to natural forest management.

Biophysical

Key Forests Conserved. While protected areas and forests throughout the country were being cleared or severely degraded for agriculture, the two forests that were the focus of USAID support remained relatively intact.

Baseline information. Direct and indirect USAID support for research and inventory work in both forests has produced a wealth of information related to ecology and biodiversity conservation. Wildlife inventories have established baselines for most primate species and many of the larger mammals. Survey work has also been completed for most other faunal groups.

Biomass production. The RRAM project led to increases of on-farm biomass productivity. Unfortunately, productivity estimates on a unit area basis are not currently available.

Management planning. Projects in both forests contributed to the development and monitoring of management plans.

Field stations and offices. Construction and rehabilitation of park offices and research field stations were completed at both forests with USAID support.

Ecotourism infrastructure. Over 40 kilometers of ecotourism trails, several in-forest campgrounds and visitor information sites were constructed on the Nyungwe project. Trail construction and maintenance was also completed at the Parc des Volcans with USAID support.

Transboundary conservation. International collaboration was improved, especially in relation to the transboundary areas of Nyungwe and Kabira National Park in Burundi and the shared boundary of the Parc des Volcans with Mgahinga National Park in Uganda and Virunga National Park in the DRCongo.

Social

Conservation education leadership. First with the Mountain Gorilla Project and then later with the Nyungwe project, USAID supported activities that led to the development of the most comprehensive conservation education programs in Rwanda at that time. The Mountain Gorilla Project was a regional leader and innovator in relation to forest conservation education (mobile program taken throughout the project area and beyond). MGP's conservation message was effectively transmitted to most levels of Rwandan society and greatly influenced decision-makers.

Curriculum development for schools. Projects in both forests were involved in helping Rwandan schools expand their curriculum to include basic messages focused on environmental education and the conservation of natural resources.

Empowerment through training. Guides, trail workers, and other service providers received a considerable amount of training from project staff in both forest locations. It is this core group of project personnel that are largely credited with maintaining activities during unstable times and ultimately contributing to the conservation of the forests.

Educational materials. Project activities in both areas produced a range of educational materials that included information pamphlets, guidebooks, and posters. The materials were either distributed free of charge to schools and other national institutions or sold to tourists (depending on the material). Some of the materials produced in the 80s (posters) are still available today in Rwandan shops and offices.

Economic

Revenue from ecotourism. Estimates of revenue generated from ecotourism in the Parc des Volcans placed the value of that program at US$4 million per year prior to the civil war. Nyungwe's ecotourism program generated more modest yet significant amounts (estimated in the hundreds of thousands of dollars per year for the local economy and ORTPN).

Material contribution. International visitors frequently made contributions of equipment, educational materials, and money to guides and other project personnel in both forests. Most were made on an individual-to-individual basis, others were arranged between institutions as well.

Forest enterprise development. In the case of Nyungwe, the project encouraged local artists and wood workers to display their crafts at the tourist site. This generated a range of requests for materials, including folding tables that were made from local forest species (under controlled harvesting programs) as well as baskets, carvings, and other materials. Similar activities were supported at Parc des Volcans.

Employment. Project activities in both areas cumulatively led to the direct hiring of hundreds of local community members either by the projects or by ORTPN. Initially, most of the costs were covered by project funding; an increasing number of employees were eventually paid from tourism receipts.

Coordination with national and international tourism service providers. Both projects worked closely and often with a range of service providers in the ecotourism industry. The group included travel agencies, tour operators, societies, and other organizations. Both programs catered to a range of tourist: from backpackers and "overlanders" to the more upscale groups such as "birders."

Ecotourism extension. In the case of the Nyungwe project, interest in the forest as a tourist destination grew so rapidly that local officials and leaders requested and received technical assistance from the project to develop other ecotourism activities in the region (chimp viewing in a small forest outside of Nyungwe, lakeshore camping and recreational development at Lake Kivu, etc.).

Regional ecotourism promotion. Projects in both forests also promoted other established ecotourism destinations in the region (by distributing brochures and other information), including programs within Rwanda and in neighboring countries (Burundi and DRC). In all, this supported the ecotourism objective of diversifying activities in an effort to keep tourist in the region for longer periods of time.

Institutional

Protected area policies. Both projects provided regular and frequent feedback to the process of developing a wide range of ORTPN protected area policies related to tourism, research, training, and communications. Some of these same policies were also applied by the Department of Water and Forests and ISAR (Rwandan Agricultural Scientific Research Institute).

International research and conservation links. Both forest projects spent time and resources advocating for increased communications and collaborative arrangements between international research institutions, universities, foundations and conservation organizations with the Rwandan research and conservation community.

Capacity Development. Projects in both forests worked on the development of training programs for ORTPN professional staff. Activities included structured training programs as well as field visits to other similar projects and activities in the region. The projects also supported the work of researchers, faculty, and students from ISAR and the University of Butare.

Conservation initiatives with ongoing forestry projects. In Nyungwe, the project worked with personnel from the various Forestry Department donor projects (EU, World Bank, Swiss and French) to increase coordination of management activities, especially those directly related to conservation education, forest inventory, and forest protection.

Replication. The Nyungwe project was replicated from successful activities initiated in Parc des Volcans (ecotourism based on primate viewing, research, and conservation education). Both of these projects led to similar activities/projects in Burundi and Uganda. The International Gorilla Conservation Project (IGCP) was created in the early 90s and is still responsible for assisting much of the conservation coordination and management that is carried out in relation to the Virunga Volcano range in Rwanda, Uganda, and the DRC. The highly successful gorilla tourism program at Bwindi National Park in Uganda (and Mgahinga NP in Uganda) is a direct replication of the Rwandan model.

Lessons Learned

1 Protection is important, but the prospects for sustainable forest management are increased when local communities are engaged in forest conservation initiatives that provide direct benefits. The example from Nyungwe forest, where project employees maintained activities despite the absence of law and order, demonstrates the level of commitment that can be made when members of local communities are empowered to make management decisions and realize benefits from their efforts. Similar examples come from Parc des Volcans. A common factor to each forest is that they are both sites of successful ecotourism programs that were supported to varying degrees by members of the local communities for their obvious benefits. They were also the sites of conservation and development projects that provided employment opportunities and skills. Conversely, the two other high-altitude forests that were not ecotourism centers, Gishwati and Mukura Forest Reserves, were deforested.

2 Capitalizing on the presence of key wildlife species can have a multiplier effect that goes far beyond ecotourism revenue. In the case of Rwanda, it was far better to risk possible overexposure of wildlife populations to tourists, then to risk having the habitat converted or significantly altered for large-scale commercial endeavors. This was the situation facing Parc des Volcans 20 years ago. What many people did not anticipate, however, was the international recognition that gorilla tourism would draw to the conservation needs of threatened species and forests. It was also difficult to foresee the high level of political support that this program would generate at most levels of government. Primate viewing programs have been replicated in many other settings, and it could be argued that where these programs have been successfully established, conservation has been enhanced.

3 NGOs often demonstrate a strong commitment to a particular objective that corresponds well with their institutional mission statement. Two well-known international conservation NGOs (WCS and AWF) demonstrated a commitment to their programs (Nyungwe and Parc des Volcans) during a time of crisis. This helped conserve both forests and better prepare all stakeholders to resume activities once law and order were restored.

4 While the forest conservation efforts made progress to protect key wildlife species, the situation of the Batwa has steadily deteriorated. When the USAID-funded projects began, most agencies and conservation organizations viewed the Batwa as a threat to conservation and did not oppose GOR practices to remove them from the forests. The assumption was that the Batwa would benefit from adopting a more sedentary agricultural lifestyle and they would have better access to educational and health services. For years it has been evident that this is not the case; today the Batwa suffer from a range of social and health problems directly attributed to GOR

policies that forcibly removed them from their traditional areas. The GOR, donors and the international conservation community have yet to adequately address this issue.

5 Conservation programs should make management provisions for the exploitation of minerals within forest areas. Wherever valuable minerals are found, they will be exploited either transparently or clandestinely. It is in the best interest of conservation and equitable development to have these operations take place in a transparent and ecologically sensitive manner. In the early 1990s the Nyungwe project conducted a study of gold mining.

6 Consolidating existing mission NRM projects under an "umbrella" grant or contract mechanism is conceptually appealing but unlikely to be effective when projects are implemented in different geographic areas. In 1989 the Rwanda mission attempted to consolidate the NRM program by awarding a contract to a for-profit firm to coordinate program activities among a range of institutions and projects which were operating in different geographic regions. The activities include wetland management, fish culture, soil conservation, agroforestry, environmental planning, and protected area management/biodiversity conservation. By 1992 the mission had already rejected this model and went back to funding activities as it had prior to 1989. Had these activities been implemented within the same landscapes, then the chances for synergistic field-level impact would have been greatly enhanced.

7 As a conservation initiative, ecotourism is a dynamic enterprise that can provide great rewards, but it is also management intensive and places a great demand on project time and resources. In the Rwanda context ecotourism has been highly successful in bringing in foreign exchange and generating revenue at the ecotourism sites. It has also raised national and international awareness levels about key conservation issues, which in turn favors the development of enabling conditions necessary for sustainable forest management. Ecotourism development does, however, require a considerable commitment of time and resources when effectively managed. For both Nyungwe and Parc des Volcans ecotourism was but one of several project activities. With both projects it was the one activity that demanded the greatest amount of attention, especially during the initial 2-3 years period.

SENEGAL

National Level

Background

Forest management in Senegal has been characterized by extensive state involvement with little recognition of the potential for achieving positive long-term sustainable forest management, development, and utilization through the involvement of local communities. During pre-independence and the early 1960s, the perception of the forest service was that of a guard service or forest police force. The system was based on the French forestry code from 1935 that emphasized control and preservation of resources. However, local populations were not concerned about the repressive nature of the code as there was very little pressure on the forests, given good rainfall combined with the fact that there was enough land to satisfy needs.

Pre-independence forestry activities were centered on large-scale reforestation efforts along roadsides, rail lines, and communal land with species such as cassia, Albizzia lebbek and neem. In fact, neem was known as the "Independence tree" by local populations.

At independence, the Forest Service was a strong institution, having benefited from colonial infrastructure and knowledge. The early 1960s was also the time of research and publications, much of the work on the Sahel in botany and other subjects was centered in Senegal. The forest service also continued the plantation effort, with the establishment of several large plantations near Dakar, Diourbel, and Thies, using primarily teak, gmelina, and khaya.

Shortly after independence, the drought combined with an increased charcoal demand from Dakar meant that the forest service needed to protect and regenerate more forests. The forest code was revised in 1965 and although it was still repressive, it promoted the concept of village reforestation zones. However, the revised code still required forest service authorization to cut trees whether in the forest, field, or home. Additionally, in 1964, the National Land Law was passed which made all lands the property of the State, abolished traditional systems, and generally discouraged community and private initiatives.

The period from 1968-70 saw the beginning of multi-donor-funded large-scale reforestation efforts in Thies, Bandia, and Kaolack, in response to the "energy crisis" and to establish a supply for the Dakar charcoal market. This strategy was largely based on the premise that exotic trees species such as eucalyptus would have much higher growth rates than the natural forest and the rate of return on the investment would exceed 30 percent. However, the poor estimates of growth rate and general rates of return from large-scale plantations led to some of the biggest errors made in the history of Senegalese forestry.

During this same period, donors and the forest service started several community forest (woodlot) projects. The idea was to try to promote village woodlots and make trees part of the production systems. This represented a paradigm shift as there was more of a social orientation to these new initiatives. In reality, however, village woodlots were just scaled down state plantation schemes.

In 1993, the forest service began to reconsider its role. Thus, during the late 1980s to early 1990s, a sentiment of local ownership was being created. Local communities were becoming more organized socially, politically and institutionally, and with the new forest code, trees belonged to

the person who planted them. Concurrent with this change in sentiment, this same period saw the beginning of decentralization combined with another paradigm shift from focusing on forests and trees to broader concern about natural resources. In fact, natural resources were the vehicle for decentralization and a means to empower local authorities. The bottom line was that the forest service's poor management of natural resources resulted in local demand for decentralization.

Current Situation

The decline in the country's forest resources combined with local demand for decentralization of natural resource management has made government and other agencies acutely aware of the need to devise effective ways to stabilize and regenerate the country's natural resources. As noted above, the principal engines for forestry sector/natural forest management action have been: (i) the forest service's willingness to better integrate communities into forest management (and recognition that the population and government must manage forest resources together); and (ii) the Decentralization Act.

Senegal adopted a progressive decentralization code which transferred a wide range of responsibilities to local government units (LGUs). These local jurisdictions obtained the authority to manage their affairs in nine areas:

- Land tenure,
- Environment and natural resources,
- Health, population, and social affairs,
- Education,
- Youth and sports,
- Culture,
- Urban planning and housing,
- Land development, and
- Development planning.

Thus, civil society and the private sector have become important players because state control has been relaxed. Regional Advisers are elected and as a result regions have their own representation. The decentralization law enabled the status of the extension services to be changed, to become a society in which there is public participation, and that fosters collaboration between producer organizations and decentralized bodies. Indeed, the "code de conduite communautaire des collectivites rural" is a more important governing document than the forest code; it incorporates forestry, range (parcours), wetlands, agriculture, water, and finance into one (easier to understand) code.

The Decentralization Act provides the authority to transfer jurisdiction (transfer de competence) over natural forests to rural communities, provided that certain conditions are met. The most important of these conditions is the development of a forest management plan to be approved by the forest service. To date almost 40,000 hectares of natural forests have been transferred to

rural communities primarily with the assistance of three projects: 1) PAGERNA, funded by the German government and implemented by GTZ. This project works primarily at the village level and helps to establish village protected areas (mise en defense) which can be managed to provide wood and non-wood forest products on a sustainable basis. 2) PROGEDE, funded by the World Bank and implemented by the Forest Service. This project works in the Tamba/Kolda area on a larger scale, 18-25 villages to manage one forest section. 3) CIDA, in Kolda, that works on the co-management of classified forest. The new USAID-funded initiative (Senegal Agriculture and Natural Resource Management) is also expected to become involved in NFM when it becomes operation in 2003.

Despite this recent progress, there are a number of outstanding issues related to CBNFM. Senegal's existing policies do not help local communities gain full benefit from their natural resources. The Forest Code does not clearly provide regulations and procedures for the transfer of jurisdiction over forests to local communities. Although the Decentralization Law provides authority to transfer jurisdiction over forests to local communities, it lacks specific regulations and detailed procedures for accomplishing this transfer.

An expression often heard in Senegal is that "If it's in the law, it's already done. If it's not in the law then you can't do it." This expression more or less sums up the interest of many senior forestry and other officials in developing legislation rather than focusing on a sound policy framework that would in turn guide legislation modification and revision. In fact, no distinction appears to be made in Senegal between policy and legislation and the latter has in effect become the de facto policy.

Although the Senegalese Forest Service is slowly opening the door to CBNFM, it is still considerably behind many other Sahelian countries. Although supportive of forest transfer to communities for unclassified (open access) state forests, the Forest Service is still very hesitant to enter into any co-management arrangements for classified forests or parks. Forest Code regulations allow for the distribution of a portion of revenues (taxes, fines, etc.) collected by the Forest Service to be distributed to the Communautés Rurales (CR). To date, however, these funds have not been made available to the CRs.

Laura Miller/Chemonics International

While markets for most agricultural products have been liberalized and there are few direct taxes on agricultural products, significant taxes, in some cases 20 percent of

value, are paid on charcoal, fuelwood, gums (gum arabic and mbepp gum), fruit, leaves, and bark, roots, and sap used in medicinal products. However, since products for the natural or parkland forests would tend to be more environmentally friendly than most agricultural products, this tax is a disincentive to the responsible management and production of environmentally friendly products.

Communities are required to prepare forest management plans and have them approved by the Forest Service, but private sector forest users (e.g., charcoal cutters) are not required to have any such plan. In addition, charcoal and wood products from forêts amenagées pay higher taxes than those from forêts non-amenagées, adding a direct monetary disincentive to management by local communities.

USAID Programs and Projects

USAID has a long history of involvement in the Senegal's forestry sector, but has only recently begun to get involved in natural forest management. The first effort to develop a forestry program started in 1987 with the Senegal Reforestation Project. This activity continued until 1992 and was designed to mobilize large-scale popular participation in tree planting with local and private resources. At project's end, the target was to prepare the people of Senegal to be sufficiently aware of the benefits, and have sufficient technical knowledge, to carry out tree planting with their own resources at an ever increasing rate. The project focused mostly on reforestation and afforestation activities, and did little direct work with natural forest management, although some of the work directly led to natural forest conservation (substitution of products normally taken from natural forests).

The successor to the Senegal Reforestation Project (SRP) was the Senegal Community-Based Natural Resource Management (CBNFM) project. This project began in 1994 and finished in 2001. It was designed to build upon the experiences of its predecessor by increasing community participation in the identification, planning, use, and conservation of natural resources. The goal was to increase private sector incomes derived from the exploitation of natural resources, consistent with decentralized and sustainable natural resources management.

CBNFM was developed when decentralization was advanced. Unlike the Senegal Reform Project, CBNFM focused more on institutional development, in particular community organization. CBNFM strengthened community structures, which in turn dealt with the forests. CBNFM realized that good local governance was essential for sustainable forest management. CBNFM is recognized as having helped laid the foundation for community-based natural forest management.

Natural resource management is now addressed as a crosscutting theme in USAID/Senegal's Country Strategic Plan (CSP) for 1998-2006. Its premise is that NRM concerns can be addressed through two related Strategic Objectives (SOs): SO1 (private sector enterprise development) works to improve the economic conditions for sustainable use of NRM, while SO2 (decentralization) focuses on improving political empowerment to enable local populations to take fuller charge of their resources. This program is intended to create active synergy between the two SOs, focused on agriculture and natural resource management. The program is represented by the new Senegal Natural Resource and Agriculture program, which will begin implementation in early 2003.

USAID Senegal's contributions to the forestry sector include the following activities and issues:

Biophysical

Improved natural forest conservation. The Senegal Reforestation Project was active at the village level and succeeded in putting trees into production systems, which reduced pressure on the natural forest for the same products. The project, and later CBNFM also promoted improved natural resources management techniques.

Land use management. USAID support has led to the development and implementation of rural community action plans focused on the improved management of the natural resource base. The activities have been to routinely monitor and update land use management plans (LUMPs) and implementation plans; monitor and visit model sites and stakeholders; study CBNFM implementation strategies and experiences; and develop a capacity for action research in the context of future NRM programs.

Mapping. Communities access to mapped inventories of local natural resources, relevant technical information, and trained extension agents.

Monitoring. CBNFM helped assure that monitoring programs have sufficient and competent staff for their monitoring roles; link financial and program monitoring for effectiveness; and provide training in management for results.

Social

Decentralization. The SRP also laid the groundwork for decentralization activities. Discussions and interviews indicate that many believe if community forests and tree tenure had not been an issue the decentralization law would have taken longer to develop.

Training. SRP and CBNFM reinforced the local pool of expert trainers and helped place a greater emphasis on participatory communication. The program also helped develop strategies for the wider diffusion of technical skills.

Education. Training consisted of 26 participants in U.S. short courses and six Senegalese who completed Masters Degrees in the United States; 38 U.S. observation tours; and 1,114 in-country participants. SRP also supported a study tour for select members of Parliament to see decentralization in the United States. Many of the people trained by SRP are still actively involved in government or in the private sector (projects).

Conservation education. This involved technical, commercial, educational, and motivational activities designed to encourage and convince many different groups of people to participate in tree planting. It was based on special programs for radio and TV, articles for the newspapers, and audio-visual kits of materials for use by extension agents in the regions, etc., to integrate planning of communications activities and resources within the NRM program. The use of local language was reinforced throughout program implementation.

Cross-cutting gender issues. Helped with access to land for women; accounted for the differential access of women to financial resources which can constrain women's participation in project activities; improved gender sensitivity; and developed strategies for hiring technically trained women.

Economic

Income. Through the implementation of community natural resource management activities CBNFM increased incomes within the rural communities where it was active.

Economic studies. SRP helped the Government of Senegal by developing guidelines for the proper role of government in promoting the private sector in forestry and for pricing tree products that reflects the trees market values.

Financial capacity building. CBNFM assisted the development of community financial and administrative skills.

Institutional

Forest Code. SRP was instrumental in getting the Forest Code changed.

Sector policy studies. This work also included funding a series of policy studies, meetings, and analyses for senior government decision makers to stimulate a greater participation in tree planting.

Decentralization. CBNFM was in the forefront of implementing government decentralization policies for natural resource management.

Lessons Learned

1 The decentralization of forest management can lead to better protected forests and improved conservation. Self-policing, including the control of outsiders, is working in areas where decentralization has taken hold. Communities have developed bylaws that provide for management plans and sanctions for those who break the rules.

2 When institutions with police powers change their mandate without the benefit of an education campaign and personnel "retooling," the trust between the communities and institutional agents will take longer to establish. There still appears to be some distrust between the communities and the forest service. Although attitudes toward the FD appear to be changing, it's happening much more slowly than in other countries that have undertaken similar initiatives. One reason is frequent past conflict between forest department agents and villagers.

3 Communities see the forest as most important for services rather than as a source of revenue. Communities are not as much interested in making money from the forest as for protecting it for livestock grazing, use as windbreaks, water source, etc. Access to forest ownership is the first motivation because communities understand the importance of preserving the forest to meet their own needs, and recognize the need to address the principal threat to forest conservation (open access by both the community and outsiders). As a result, management plans developed to date have been very conservative.

4 The process of decentralizing forest management directly supports democratization, civil society development, and conflict resolution in Senegal. Most beneficiaries interviewed said that the decentralization of forest management brought them closer together and provided a structure through which democratic principles can grow. They have seen the benefits of better social cohesion and are now better able to better manage lives. Communities and officials alike

noted that communities have gained confidence in being able to use the legal system and their own skills to defend their interests in community forest lands. Conflict resolution is still based on traditional methods but negotiated agreements and rule by law now lend more support to the traditional process. This was abetted through decentralizing forest management.

5 Policy reform and effective implementation (adherence to rules and regulations)have a much greater chance of success when field experience is driving the policy and regulatory process. In Senegal, the two issues that central government frequently do not like to directly address from a legal perspective are land use and resource access. It has been repeatedly demonstrated that the decision-making process works much better when issues originate from the field (communities) and are brought to the attention of central government for resolution.

6 The chances of successfully institutionalizing sustainable forest management at the community level are reduced when outside support is limited to short time periods (five years or less). Continuity (and interest) of donor support both in the field and in headquarters is critical to the success of CBNFM projects. Related to this is the need for or ability of donors to collect and pass on the lessons learned from CBNFM/CBNFM activities. The importance of having people who have stayed with the program over a long period and who can collect and pass on the lessons cannot be overlooked.

UGANDA

National Level

Background

In the 1960s Uganda was among the most developed countries in Africa. The government system operated effectively, the private sector was dynamic, and its educational system was among the best on the African continent. At the same time, Uganda had one of the most extensive and well-organized protected area systems in Africa. About 70 percent of all Ugandan forests had plans that provided guidelines and standards for their management. However, during the period of insecurity and civil war (1972-1986), the plans expired and the protected areas were largely neglected and abused.

Uganda's long and violent civil war ended in 1986. Following the civil war, the national development strategy of late 80s and early 90s sought to restore law and order, rehabilitate the government and private sector, and rebuild national unity. Uganda has successfully met many of these challenges. Strong leadership has been a key factor for Uganda's rapid development through the rehabilitation and development stages (including the development of good working relations with the international donor community). Today, Uganda is a regional leader in promoting the decentralization of government and democratization. It is also world leader in the fight against the global AIDS epidemic.

Despite Uganda's impressive development record during the past 15 years, problems still remain. Economic growth and stability is threatened by regional conflicts (most recently in neighboring Democratic Republic of Congo) as well as regular insurgencies from the northern and western parts of the country. Corruption still plagues parts of the government as well as the military and private sector, and transparency is continuously raised as an issue that needs additional attention. All of these issues, both negative and positive, have a direct impact on Uganda's forestry sector.

Uganda possesses a network of natural forests that are internationally recognized for their extremely high resource values (many are critical watersheds that contain high levels of biodiversity, including exceptional levels of endemism). Most of the forests are located in Western Uganda and are vital components of the Albertine rift valley complex; a macro landscape feature that contains the African Great Lakes. Virtually all of the forest areas are either national parks or forest reserves.

Population densities outside these forests are among the highest found in Africa (and anywhere else in the tropics). Apart from woodlands, there is very little natural forest found outside of the parks and reserves. Population pressures, and the important role these forests play in providing critical goods and services, has led Uganda to test a number of methods and technologies that more fully integrate community participation in the management of these forests.

During the 198's Uganda's dense humid forests were mostly part of the public domain and directly under the control of the Forest Department (FD). In the early 1990s a number of key forest reserves were reclassified as national parks and management responsibility for these areas was handed over to Uganda National Parks (UNP). Prior to that time, UNP had been responsible for a network of savanna parks established during the colonial period primarily to protect big game species. By the mid 1990s UNP was merged with the Game Department and transformed into the Uganda Wildlife Authority (UWA), a parastatal agency having greater autonomy from

central government. A similar initiative has been approved by the GOU for the FD (to become a Forest Authority).

Current Situation

Uganda's protected area system has been largely rehabilitated, and both key forest reserves and national parks are under active management systems. Deforestation rates have declined dramatically, and deforestation is no longer considered an immediate management priority in most protected areas. Similarly, since the end of the civil war poaching rates in protected areas have also declined. Unlike deforestation, however, poaching fluctuates from one area to another, with some locales going through periodic increases.

Baseline information for forest areas has also improved significantly. During the 1990s, biodiversity inventories were completed for all key forest reserves and most national parks. Many protected areas also benefit from active research programs linked to both national and international universities.

Permanent forest inventory plots were established in select areas during the Colonial period. They were neglected during the civil war, but some of them have been rehabilitated with IUCN support (Budongo Forest). There are also plans to increase the network of permanent forest inventory plots. Forest inventories have been carried out in all forest reserves, and the National Biomass Project (located at the FD) has established a comprehensive set of permanent field vegetation plots located throughout the country. This project has produced vegetation maps at varying scales that have been widely used by development projects, organizations, agencies, institutions, donor community and the private sector.

The FD has also completed the national Forest Master Plan with assistance from the European Community. The Forest Master Plan contains guidelines for the completion and implementation of site specific forest management plans, which include provisions for community access and user rights.

The enabling conditions for community involvement in natural forest management (co-management, access, user rights) are contained in the current Forest Policy, the Wildlife Policy and the GOU's decentralization initiative. Decentralization, in particular, has been instrumental in bringing local government and communities closer to decision making related to forest resources. The decentralization of environmental management in select areas has also led to the FD turning over an initial group of forest reserves to local government and communities for management. At the district level, forestry issues are currently addressed in the district environmental plans.

UWA has been promoting community participation in the management of national parks through ecotourism development, district level environmental advisory committees, training for key government personnel (community conservation wardens), and the establishment of multiple use access and utilization zones within the parks. UWA also has a revenue sharing scheme in place for all national parks where 20 percent of the gate fees are used by communities for development initiatives (mostly schools, health clinics, and other infrastructure).

Nevertheless, the UWA and the FD have problems that need to be addressed. Both agencies suffer from a shortage of trained field personnel and materials. In the case of UWA, the Kampala office is frequently criticized as being too isolated from the real problems (in the field) and for holding back too much of the financial and material resources for their own operations. The

Forest Department has to deal with similar issues in addition to internal resistance to the decision to transform the FD into a Forest Authority (which automatically places a greater emphasis on the decentralization of forest resource management). A number of protected areas in both agencies have boundary disputes with communities and/or local representatives as well.

Despite the changes in policy, many FD and UWA personnel do not believe that increasing community involvement in protected area management is a wise or viable approach. Skeptics are found both in headquarters and in the field. This makes the success of the pilot initiatives undertaken by the FD, UWA and local government that much more important and potentially more difficult to achieve.

Forestry issues, and their role in the social and economic welfare of Uganda, are not well articulated in Uganda's National Poverty Reduction Strategy. This is unfortunate and could lead to missed opportunities for communities to directly benefit from their own resources. One reason for this oversight is due to the limited work that has been carried out in relation to total value estimates of Ugandan forests (the IUCN is addressing this issue in part). Other reasons focus on institutional infighting and poor coordination among agencies and organizations, including the donors. With Uganda committed to a national poverty reduction strategy, all donors (with the exception of USAID) are pooling their resources together in this effort to more effectively utilize available resources (U.S. Congress does not permit USAID to pool resources with other donors/institutions).

Outside of protected areas, the remaining natural forests and woodlands are being deforested at alarming rates. Although less biologically diverse than the dense humid forests, these forests are still important sources of goods and services. Many are being cleared for charcoal production to supply the urban zones. This is largely driven by the lack of a national energy policy addressing sectors outside of electricity and petroleum. This has subsequently led to increasing demands for charcoal as electricity prices go up. Also, the significant growth of the economy has led to an increased demand for wood products. Plantation forests, which have until recently been largely ignored, are in some areas being put under active management systems.

At the local level, forest resources are threatened by mineral exploitation (most notably gold and coltan) and associated activities (poaching, grazing, make-shift camps, fires) in forest areas. Mining can lead to both economic opportunity as well as environmental damage (if conducted in a speculative, unorganized manner).

Finally, most of the key forest protected areas in the western part of the country have been the sites of conflicts, or have been used as a safe haven for rebel activity/conflict during the past 10 years or more (as in the case of Rwenzori Mountains, Semliki, and Mgahinga). Instability in Mgahinga, Rwenzori Mountains, and Semliki (which are all part of transboundary protected areas in Rwanda and the Congo) is largely the result of civil war and instability in neighboring countries. Surprisingly, the civil war in the Congo appears to have eased pressure on timber resources in Uganda due to the largely uncontrolled trafficking of undervalued timber. While this may bode well for Uganda's forests in the short-term, the widespread availability of undervalued tropical timbers could undermine efforts to sustainably manage Uganda's forest resources in the future.

USAID Assistance

USAID has been directly involved in the management of Uganda's natural forests for more than 15 years. USAID support to this sector has been programmed through three basic means:

1. USAID Washington-based projects (i.e., biodiversity grants) that were used to start up field work in the mid-late 1980s. Most of these were given to U.S. based conservation NGOs working in protected areas.

2. PL-480 food imports generated counterpart funds (local currency) that were programmed for project work. These funds were used in part for NRM/forestry work from the late 1980s until the mid 1990s. Frequently they were used to supplement the biodiversity grants, action projects, and as "start up funds" for new projects. PL-480 also assisted the mission to directly fund field research.

3. Program Funds (Grants and contracts through Mission ENR programs, 1991-present: Action Program for the Environment (APE) I and II, and the Conservation of Biologically Diverse Areas program (COBS). The Mission programs worked both at the institutional level (technical assistance and support) as well as at the field/community level (accomplished to a great extent through the implementation of Integrated Conservation and Development Projects - ICDP's)

USAID assistance to Uganda's forestry sector has been channeled primarily through international and national NGOs, universities, and for-profit firms. However, some technical assistance as well as a percentage of the PL-480 support was provided directly to GOU agencies.

The following list summarizes USAID contributions in the field of natural forest management.

Biophysical

Conservation status of key forest areas. USAID spearheaded the Government of Uganda's initiative to upgrade the conservation status of key forest areas from forest reserves (managed under the Forest Department) to national parks (under UWA). These areas included Mgahinga, Bwindi, Rwenzori, Kibale, Mt. Elgon, and Semliki forest reserves. All became national parks by the early 1990s.

Deforestation and forest degradation. Deforestation was stopped and forest degradation was greatly reduced where USAID projects were operating (some areas were in fact, rehabilitated and the forest cover expanded). Forest degradation was reduced most notably in Mgahinga, Bwindi, and Kibale national parks. To a lesser extent this was also true for Rwenzori Mountains (insecurity issues limited the effectiveness of project support). Other protected areas that have been better conserved include Queen Elizabeth (Maramagambo Forest), Semliki, and Mt. Elgon national parks, and the Budongo Forest Reserve (USAID provided complimentary support to this last group of forests, which were also received funding from other donors).

Baseline information. USAID improved baseline management information through inventory and research programs at all forest areas (community perceptions and awareness, resource use and access, biodiversity inventories, soil conservation studies, indigenous tree growth trials, restoration ecology, seed dispersal mechanisms, primate studies, and others).

Monitoring and evaluation systems. USAID helped set up monitoring and evaluation systems (biophysical, social, administrative, and financial) for all protected areas where there was project activity as well as the UWA headquarters. USAID is now in the process of collecting baseline information for all of its natural resources management activities to measure impact over time. For example, USAID is presently running aerial photography (1:25,000 scale) and conducting farmer-level income surveys at Bwindi National Park, Mgahinga National Park, Echuya Forest Reserve, and specific "landscape sites" in southwestern Uganda.

Transboundary conservation. USAID funded a series of three international conferences for the conservation of Afromontane forests (four participating countries included Uganda, Rwanda, Burundi, and the Congo). The first conference was held in Rwanda in 1989 (USAID Rwanda support), the second in Burundi in 1992 (USAID Burundi support) and the third in Uganda in 1994 (USAID Uganda support). These early efforts have led to improved communications and coordination of conservation activities in the region as well as other spin-off programs and organizations. Also, USAID Uganda provided the initial assistance to the International Gorilla Conservation Project (managed by a consortium of conservation NGOs) which has been effective in monitoring activities and promoting conservation for transboundary forests in Uganda, Rwanda and the Congo.

Social

Community participation in protected area management. USAID initiated the development of protected area management committees (PMACS). Although PMACS were eventually dissolved, they served as the forerunner to the current district level committees established to provide direct community and local government participation in the management of protected areas.

Community participation in project design. Until the early 1990s very few development projects designed their activities with the active participation of the communities. That has changed significantly in part because of efforts made by USAID to improve the participation of community members in project design, implementation, and evaluation.

Multiple-use zones. The concept of establishing community access multiple-use zones in a national park was pioneered in Uganda at Bwindi Impenetrable National Park in the early 1990s through USAID support (CARE International and the Institute for Tropical Forestry were the grantees that implemented the activity). This concept has since been replicated and adapted to other protected areas of Uganda and the region.

Decentralization of natural forest management. USAID programs working for the decentralization of environmental management through Action Program for the Environment (APE), Conservation of Biologically Diverse Areas Program (COBS), and Environmental Protection through Economic Development project (EPED), implemented by ACDI/VOCA, have helped prepare local government to manage their forest resources. USAID also promoted the revenue sharing scheme that UWA now has adopted as policy.

Economic

Income generation. Communities in the zones where USAID has funded forestry related projects are deriving direct benefits and income from employment, enterprise development, revenue sharing, and the sustainable extraction of forest resources.

Ecotourism development. USAID project activities were in the forefront of developing Uganda's ecotourism industry since the late 1980s. Gorilla tourism in Uganda was initiated with USAID support (Bwindi and Mgahinga) and chimpanzee tourism in other parts of Uganda. Similarly, USAID supported some of the earliest community-based ecotourism initiatives (Buhoma at Bwindi, Kisoro at Mgahinga, Mbanda at Rwenzori, and Bigodi/Kanyancu at Kibale).

Self sufficiency. USAID project activities also enhanced community capacity (skills training) and the integration of productive technologies at the farm level. Some led to increased household incomes, while others promoted on-farm production of products normally taken from forest areas (agroforestry systems). This has often led to household savings in time, energy, and productive resources.

Potential products. USAID is already developing new technologies targeted at increasing the productivity and value of select forest products. In this regard, ICRAF has made considerable progress with on-farm planting of a natural forest tree, Prunus africana (bark is used to treat prostate cancer) Prunus is currently threatened throughout its range by unsustainable harvesting practices. The major demand is from the European market. USAID is also conducting some work with wild coffee strains and medicinals.

Institutional

National Environmental Action Plan. The action program provided both technical assistance and project level support to the development of Uganda's National Environmental Action Plan, which updated forest policy and legislation.

Ministerial reform. USAID support helped restructure several ministries (including the consolidation of line ministries involved with the management of forest resources) and develop the Uganda Wildlife Authority.

Forest trust. Uganda has established the Bwindi Impenetrable Trust; an off-shore endowment that provides funding for community-based development projects, the management and protection of Bwindi, and research. The Bwindi Trust was the first of its kind in Uganda and the region. USAID provided some of the start-up capital and technical assistance needed to establish the trust. This effort has been replicated in various forms in Uganda and in the region.

Peace Corps. Peace Corps Uganda managed a Natural Resources program that was effective in supporting the FD and Uganda Wildlife Authority. USAID had developed strong and positive relations with the Peace Corps Natural Resources program, and provided direct support to Peace Corps volunteers assigned to sites where USAID had project activities.

Lessons Learned

1 Establishing national parks from less restrictive protected areas requires adequate planning and clear communications. Initially, some communities opposed the government transfer of key forest reserves to national parks. Many viewed this as merely a centralized means to obstruct their access to needed resources. In the case of Bwindi, Mgahinga, and the Rwenzori Mountains, the situation was exacerbated by Forest Department personnel who spread misinformation among the communities to heighten their fear and ultimately block the transfer (stories focused on Uganda National Parks stocking dangerous wildlife in the forests that would threaten the communities like lions, leopards, and elephant). It has taken a concerted effort on the part of UWA (with support from USAID and partner projects) to adopt more "community friendly" policies and programs to change these views. Among the more influential initiatives are the development of ecotourism activities (especially primate tourism) and the creation of multiple-use access zones.

2 Donor Coordination. The change of forest reserves to national parks created tension between the FD and UWA. Unfortunately, this carried over somewhat to relations between USAID (who was viewed as supporting UWA and the international conservation NGOs at the expense of the FD) and the European Union (which was supporting a large forestry rehabilitation initiative). It took a concerted effort on the part of technical officers within these organizations and agencies to maintain some level of coordination. This one example underscores the importance of maintaining close and regular donor coordination during the implementation of development activities.

3 Strategies that integrate conservation and development technologies are effective in stopping deforestation and reducing degradation. The integrated use of technologies provides the framework for the sustainable use of forest resources. Effective technologies include those that increase on-farm productivity, develop community capacity (including civil society strengthening), build NGO and GOU capacity, promote conservation education, foster enterprise development (including ecotourism), improve forest management systems (including protection), and focus on applied research. The level of effort devoted to any one of these technologies largely depends on the site in question at a particular period. The more progressive programs are not static; rather, they adapt to the prevailing conditions by modifying resource allocation accordingly.

4 PL-480 can be an effective development tool for forest management. The use of local currency funds was an effective means of generating significant resources for discreet sets of activities (infrastructure rehabilitation and development) as well as supplementing or funding project work. These funds were also used as seed money for research. Conversely, although it is recognized that PL-480 funds had positive effects on NFM, some funds were diverted and part of larger corruption scandals that were uncovered at the FD and UWA.

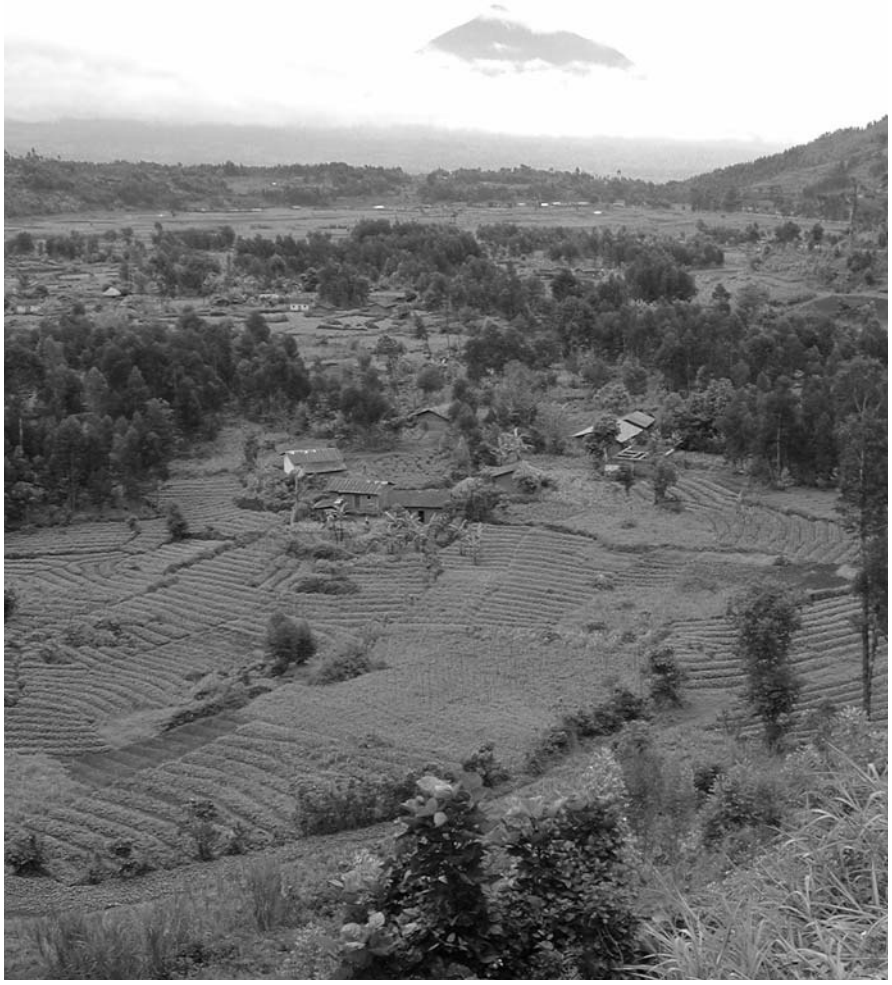
5 Environmental management and forestry is a vehicle for decentralization. Uganda has vigorously embarked on a Decentralization of Government program for most of the past eight years. The program has been implemented in stages (pilot districts) and has been supported by a range of donors (including USAID). Concurrently, under the guidance of the National Environmental Management Agency the decentralization of environmental management has moved forward in select districts. Districts where the decentralization of environmental man-

agement has taken place are among the best prepared for the decentralization of government. Within this context, forest resources and their management (co-management or complete transfer of management authority) are often the focal point of decentralization efforts because they are a local source of revenues (timber and other market products) and contain a range of goods and services.

6 Community-based ecotourism can lead to forest co-management strategies. Ecotourism programs grew rapidly in many parts of Uganda during the 1990s. USAID provided timely support to their development in the early stages. In some locales, community-based ecotourism has evolved as a primary vehicle for the establishment of forest co-management schemes.

7 Ecotourism programs need to diversify. Ecotourism has generated benefits for local communities, but the number of attractions is limited and most programs need to diversify to draw a larger group and retain tourists for longer periods of time (this is especially true in the case of primate tourism).

8 Policy and field activities need to be balanced and integrated. USAID provided effective support to policy development in the environment (including forestry) mostly because it maintained a significant presence through NGO's and contractors in the field. This enabled the mission to take advantage of field experiences that could then be applied to the formulation of effective policies and legislation. Similarly, as the enabling policy and legislative framework for forest management evolved, field-level activities that promoted the active participation of communities in the management of forest resources met less resistance.



David Gibson/Chemonics International

INDONESIA

National Level

Background

Indonesia has been governed by a military dictatorship (General Suharto) throughout most of its post-colonial period, including all of the 1980s and most of the 1990s. This led to the establishment of a heavily centralized government in a country that consists of about 17,000 islands and a wealth of ethnic and natural resource diversity. As the world's fourth most populous nation, this period also witnessed several large-scale migrations from more densely populated areas (Java) to islands like Kalimantan and Sumatra. Migrations have taken place both as part of government sanctioned programs as well as unofficial attempts by communities to seek access to a greater resource base (including forested areas). Conflict has been associated with a number of these migration periods.

Under Suharto the state claimed ownership of all forestlands, which represented more than 70 percent of the country (although much of this land is no longer forested). Most of these forests were located in Kalimantan, Sumatra, and Papua, where many people depend directly on them for their livelihood. The Suharto government viewed forest resources as a key element in the strategy to promote economic development. The approach focused on establishing wood processing industries (mostly in Kalimantan and Sumatra) that would answer domestic needs while generating a significant supply of foreign currency.

Unfortunately, the forest industry was developed without a clear understanding of the carrying capacity of the resource base, and egregious errors were made in the 1960s when estimating available forest stocks and their growth rates. At that time, 64 million hectares were classified as "production forests" and a standard growth rate of 1 m3/ha/year was adopted. This led planners to establish an annual allowable cut of 64 million m3. The actual amount of "production forests" was much less than the estimated 64 million hectares and annual growth rates on many sites are less than 1 m^3/ha/year. Allowable cuts have been reduced significantly since that time, but are still in excess of what most believe is a sustainable level.

Part of the strategy also called for the establishment of fast growing forest plantations on non-forested land. This has not been carried out to the extent anticipated. Consequently, forest productivity in both natural forests and plantations has not been able to keep up with wood processing capacity.

Finally, the forest industry was created over a period of three decades. In the 1960s concessions were granted to generals and areas were harvested using low-capital intensity methods. In the late 1970s more wood processing capacity was established through subsidized loans. In the 1980s and 1990s the government lobbied international financing institutions to provide the necessary start-up capital for handpicked companies (especially in the pulp sector), many which had direct ties to the Suharto government through the military. Further complicating matters, the central government granted large-scale concessions in areas that had already been classified as traditional land (adat). During the Suharto years, some companies benefited from military protection when relations with local communities reached the point of conflict. It is estimated that up to 70 percent of the military's financial resources come from all non-budget commercial operations. A lot of this is derived directly from forest industries.

Current Situation

Deforestation in Indonesia is continuing at an alarming rate. Recent estimates indicate that the country is losing about 2 million hectares per year. Most of this is taking place in Kalimantan and Sumatra. The main reasons for the deforestation is subsidized wood processing, conversion to plantation crops (oil palm and rubber tree plantations), illegal logging, unenforceable regulations, and the denial of community rights. Fires also threaten the forests and are responsible for the destruction of vast areas (as in the El Nino fires of 1997-98).

Corruption and the lack of transparency are still unresolved issues throughout Indonesia. Cronyism that helped bring about the collapse of the Indonesian economy in the late 1990, is still present in the forestry sector. Many within Indonesia list corruption as the main obstacle to development and stability, regardless of the sector. Transparency International recently rated Indonesia as the worst country in Southest Asia with regard to corruption.

The forest industry is carrying a debt measured in billions of U.S. dollars, and many, if not most of the companies, are not economically viable. Debate within the government, and among donor organizations centers on whether the state should continue to subsidize this sector (by restructuring the debt) or let the market sort it out. The Ministry of Forestry is against a bail out by the government for these companies. It believes that in the long run this will doom any prospect of establishing sustainable forest management. The Indonesian Bank Restructuring Agency (IBRA), on the other hand, is recommending assistance to the industry by restructuring the debt.

The donor and NGO community are in general agreement with the Ministry of Forestry on this issue. However, while the Ministry of Forestry is calling for a reduction in the current number of forest industries, the Ministry of Finance and the Department of Industry have been encouraging investment in processing capacity. They are doing this without adequately taking into account the effects of deforestation on agriculture, palm, and rubber plantation establishment and coastal resource management. The government also has conflicting policies regarding land claims and uses between mining, agriculture, and forestry.

Timber and wood products have been consistently undervalued in Indonesia. When prices decrease, companies attempt to offset losses by increasing the flow of materials (cutting more). Current cutting levels are estimated to be about three times the allowable amount (actual cut is about 60 million m^3/year vs. allowable cut is about 22 million m^3/year). To satisfy the wood processing industry, some companies have moved from legal concessions to illegally logging in protected areas, even national parks (i.e., Gunung Palung, Tanjung Putting, both in Kalimantan). Some companies are also claiming access rights (and cutting timber) on local community (adat) forestlands. This has led to conflicts in some areas.

The decentralization of resource management has often been found to accelerate forest conversion. Unclear land tenure and resource access rights continue to constrain sustainable forest management, and for many, decentralization is doing little more than "decentralizing corruption." In some cases decentralization has exacerbated tensions between local governments, communities, and companies and has resulted in open conflict.

Lack of capacity building is often cited as a key reason why decentralization is falling short of expectations in some areas. Decentralization is occurring at a rapid rate, and most local governments and communities are not prepared for the rapid transfer of authority and responsibility.

Local level planning and financial management skills are repeatedly cited as major weaknesses. Civil society groups and NGOs could help in this regard, but they are underrepresented in more remote places like the heavily forested island of Kalimantan. There is also a lack of local policies and regulations that clearly articulate the roles and responsibilities of all stakeholders.

Tenure and access to forest resources is a major issue surrounding decentralization, and it is also one of the main causes of fires. In this regard, vast tracts of Indonesian forests have been destroyed during the past couple of decades. The Community Fire Project (supported by GTZ) demonstrates that when communities lose their access to traditional forest areas because of conflicting claims from companies or government, fires are sometimes set to sabotage the operation or to accuse local people of non-compliance with agreements. The project also pinpoints other causes of wildfires that include shifting cultivation, transmigrants (people who are new to an area are frequently not familiar with the local conditions), and forest conversion (oil palm installation).

"Donor fatigue" is increasing for Indonesian forestry. For example, the German government (through GTZ) has provided the government with long-term assistance addressing a range of forestry issues. Because of corruption, however, the German government has decided to drastically cut back its bilateral forestry program. This is coming at a time when some experts (including German foresters) feel that the donor community needs to be engaged in forestry more than ever because of the emerging decentralization activities. Other donors are contemplating similar strategies. After persevering through the years of highly centralized military dictatorship, donors are now well positioned to assist the evolution of forestry and decentralization.

The management of Indonesia's forests is also a transboundary challenge. For example, most illegally harvested timber in Kalimantan is transported by road or barge into Malaysia where it is processed and exported to Japan, Korea, and the United States. This represents a significant percentage of all the timber cut on Kalimantan.

Research and technologies are largely outside of the current forestry debate. It is widely believed that most of the technologies have been sufficiently developed (for sustainable forest management), and that all energies should be focused on democracy and governance (decentralization and conflict mitigation) as well as capacity building (local government. and communities). Others point out that some key technologies (TPTI-national silvicultural system) are sound on a conceptual level, but flawed on a case-by-case basis due to inadequate site specific testing (including wetland forest, altitude forests, and others). For social technologies, community mapping has spread throughout Indonesia as a necessary prerequisite for any community-level work. This mapping work is largely limited to its cadastral functions (due to land disputes with concessions) at the expense of resource assessment and inventory.

Despite the challenges, there are some positive signs for Indonesian forestry. The government has developed a "five point plan:"that focuses on illegal logging, industrial restructuring, decentralization, forest rehabilitation, and fire control, and the Consultative Group on Indonesia (CGI) has included forestry as one of the key sectors. These initiatives have helped move the dialogue on forestry to the highest levels of government. In this regard, the CGI could play a major role in reconciling the differences within the government over the question of the forest industry debt burden by supporting a revision of the strategy proposed by IBRA so that it falls more in line with recommendations made by the Ministry of Forestry.

Donor investments from the early 1990s are now starting to pay dividends. The national level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policy and legislative framework that supports decentralization is mostly complete and responsive, at least on paper. This provides a legal basis for communities, local government, and forest companies to work together.

The more progressive companies realize that they need to work with communities to be viable enterprises. Some companies have developed active community programs and are looking at new strategies to improve their relations with other stakeholders. Some of these same companies are also concerned about their national and international image and are actively seeking support in their effort to partner with communities and local government. Several international conservation NGOs (TNC, WWF) recognize this potential for collaboration and are facilitating activities and agreements between local government, communities, and industry concession holders.

The same NGOs are assisting these relations by using a landscape approach to determine where to focus project level activities and with whom to broker/negotiate agreements. This method provides them with a useful means to plan, design, and implement a regional program with a diverse group of stakeholders. Similarly, with the support of both the government of Indonesia and the government of Malaysia, WWF initiated transboundary projects in Kalimantan to monitor the flow of illegal timber into Malaysia, better conserve two internationally important catchment forests, and raise public awareness of the threats to these two areas.

The more progressive NGOs and companies are also investing in research and technology development. A number of companies are actively developing tree improvement programs (forest genetics) that can systematically shift the focus from natural forests to intensely managed production from plantations. Reduced Impact Logging (RIL) is being used and tested by the Ministry of Forestry, NGOs, forest industry professionals, and community-based forestry operations to improve harvesting efficiency while minimizing disturbance due to the timber extraction. Some U.S. universities are collaborating with several Indonesian companies by providing technical assistance (e.g.., North Carolina State for forest genetic and, Oregon State for skyline cabling systems for timber extraction).

Forest certification is the focus of considerable discussion in Indonesia. So far only a few companies have been certified using international standards; others, realizing the importance of certification, are preparing themselves by following Forest Stewardship Council Principles and Criteria for Forest Stewardship. Similarly, Eco-labeling has growing support, and five companies are already working on an Eco-labeling system for Indonesia.

While there are some encouraging developments unique to the forestry sector, it appears that Indonesia's chances for peaceful development are tied to transparency, democracy, and the decentralization of government. The number of civil society groups (on a national level), some working on anti-corruption and transparency issues, has increased dramatically over the past couple of years. Also, many NGO and donor projects are now working directly with district governments (Kabupati) and bypassing or minimizing their assistance to central and provincial governments (where decentralization frequently bogs down). As indicated above, some forest companies are looking to establish productive long-term programs and relations with other stakeholders in an effort to increase productivity and minimize the resources wasted on conflict resolution.

In many parts of Indonesia, the success of transparent democracy and decentralized government is directly linked to the management of forest resources.

USAID Programs and Projects

USAID's support to Indonesian forestry since 1980 can be broken down into two distinct phases. The first actually began in the late 1970s with the funding of the Citanduay I (agricultural productivity and watershed conservation) and continued until the early 1990s when the Upland Agriculture and Conservation Project ended. Several features distinguished this period from subsequent support. Most of the projects were located in Java, they were field based, and they focused on extending productive technologies and watershed management.

Most of the work centered on increasing agricultural productivity in the lowlands through water management schemes, the introduction of improved seed, hillside soil conservation, and agroforestry technologies, demonstration, and extension. The management of natural forest areas (as part of the watershed) did not receive a lot of direct support (forest management plans, inventories, etc.). However, an underlying assumption was that improved management of the hillsides and lowland areas would lead to greater conservation of these forests (since on-farm product substitution and income generation would lead farmers away from destructive forest practices).

The second phase of USAID support began around 1990 when the Natural Resources Management Project I (NRM I) become operational. NRM I signaled a significant shift for USAID's E/NR program for several reasons. First, NRM I focused on policy and legislative reform. Second, given Indonesia's remarkable terrestrial and marine diversity, biodiversity conservation became a more important part of the Mission's overall portfolio. Third, Java was no longer the geographic focus for Mission support under ENR.

NRM II, the successor to NRM I, became operational in 1996. NRM II continued to build upon the policy and legislative work, and expanded the number of field based activities taking place in or around key protected areas (an extension of the biodiversity conservation initiative), including local level policy reform. The NRM projects also provided support to work in resource economics and valuation studies (more conducted here than other focus countries), forest industry restructuring, and provided leadership in the donor forum. Most protected area support was channeled through international and national NGOs.

It was also during this time that the environmental endowment, KEHATI, was established to provide grants for a range of environmental initiatives (implemented by NGOs). USAID contributed about $16.5 million (which formed the capital base) and also contributed another $2.5 million for small grant activities. NRM II developed BSP (Biodiversity Support Program) - KEMALA, a national NGO that is responsible for providing small grants to local environmental NGOs.

Finally, USAID Indonesia has benefited to a degree from other USAID and U.S. government funding through regional initiatives and Washington-based projects. Some of these include the international NGO work (WWF and TNC) that is supported by the International Tropical Timber Organization (ITTO), the Great Ape Earmark, and the East Asia and Pacific Environmental Initiative.

The following summarizes key USAID contributions and issues in the forestry sector:

Biophysical

Improved land use planning. Initial USAID Indonesia efforts in the environment and natural resource sector (watershed management-Citanduay I and II and the Upland Agriculture and Conservation projects) successfully promoted improved technologies in threatened watersheds that are still in use today. These efforts highlighted the benefits of planning and implementing development work on scales that reflect the predominant landscape feature. Many in the Indonesian government, NGO and donor community, and the private sector have designed projects based on these earlier models, and today landscape approaches are being used throughout Indonesia.

Biodiversity baseline information. Through USAID grant programs, baseline biodiversity information has been improved at several protected area sites and other forested areas (including mangrove forests associated with coastal project work).

Protected areas conserved. Protected areas receiving USAID support have been conserved (protection systems improved, community relations established, deforestation decreased) in most cases. However, many of the parks are threatened by forest industries operating concessions in the peripheral areas. Gunung Palung has been severely deforested (logging, conversion) and Kutai has been heavily impacted from fire.

Transboundary forests. USAID has provided support to WWF and the Ministry of Forestry in their efforts to monitor and conserve the important transboundary protected areas of Kalimantan (shared with Malaysia).

Harvesting practices. NRMP funded several studies designed to improve harvesting methods by forest managers. This has been directly applied to more than 50,000 hectares of forest.

Social

NGO development. The capacity of select national NGOs has been improved through USAID sponsored training and workshops. Most of this work has been done through BSP-KEMALA. The NGOs have also benefited from program assistance to implement development work in the field through the Primary Environmental Health Project in Kayan Mentarang.

Community based forest management. BSP-KEMALA has been effective at capacity building and promoting community based forest management (KEMALA has produced "how to" community forest management books in Bahasa Indonesia). They have also been successful in working with a forest concession holder in testing and adopting reduced impact harvesting techniques.

Community mapping. BSP-KEMALA funded a number of community mapping exercises and studies related to democratization and environmental management.

Environmental awareness. NRMP supported several studies and field implementation for environmental awareness and education. Also, GREENCOM has recently initiated project activity in Jakarta and will work there for the next two years in an effort to promote calls for action in combating illegal logging and eventually improve policies toward sustainable forest management. The mission is also supporting community education and environmental awareness through WWF's "Voice on the Forest" program and by providing training for journalists.

Democracy and governance. Through NRM, the mission has promoted CBFM in a number of key areas in Indonesia. There is the potential for collaboration between the mission's natural resource program and ongoing DG/CPT work. One area being discussed is Papua.

Economic

Environmental endowment. USAID provided critical support to one of the first environmental endowments set up for Indonesia, KEHATI.

Non-timber forest products. USAID, through the BCN project, has provided support to a number of national NGOs in an effort to promote, produce, and market NTFPs. A wide range of stakeholders in Indonesian forestry appreciates the importance of this potentially lucrative industry.

Conservation financing. NRMP funded several studies aimed at providing the financial sustainability for field level conservation activities. Some of these focused debt-for-nature strategies, other on "green taxation" for local government.

Forest economics. Studies were conducted to determine the impact of the economic crisis of the late 1990s on the natural resource management sector and forestry in particular.

Total valuation studies. NRMP promoted the analysis and use of total valuation economic studies for assessing values of forest resources. The program funded several such studies for site specific locations and protected areas, including the value of customary forest management practices in East Kalimantan. These pioneering efforts have strengthened the argument that Indonesia's forests are grossly undervalued in relation to management decision making.

Enterprise Development. Although forests play a minor role, it is worth noting the success of community co-management in relation to the Bunaken Marine (Sulawesi) supported by USAID. This is widely viewed as one of the most successful co-management projects in all of Indonesia. Considerable revenue is generated from ecotourism and other enterprises, percentages of which go to civil society development and resource conservation.

Institutional

Enabling framework for policy and legislation. NRM I and II have been successful in improving the legal and political framework for the forestry sector at the national level. USAID has maintained support for this important initiative for more than 10 years.

Natural resource conflict resolution. USAID is providing support to national NGOs to work on conflict resolution between natural resource companies and communities. Much of the work focuses on disputes over legal ownership and access. This work is increasingly in demand since the military no longer provides blanket protection for forest companies. As a result, about 90 percent of the companies are now working with communities.

Criteria and indicators. NRMP provided support for the development of criteria and indicators for forest management in Indonesia.

Management plans. Long-term management plans (25 years) were developed for several national parks including Lore Lindu and Bukit Baka Bukit Raya and Bunaken.

Program funding. For more than a decade the majority of forestry bilateral assistance was targeted at the central policy and legislative level (Jakarta). The mission is increasingly targeting resources toward the field level, which is seen by most as the best use of available resources.

USAID program coordination. While remaining positive about overall USAID support to the environment sector, a number of USAID partners expressed dissatisfaction with the structure of the USAID program. They claim that they do not clearly understand their role within the programs broader objectives, and are unaware of many related activities supported by the mission. They attributed this to weak communications.

Lessons Learned

1 Sustainable forest management in Indonesia will be difficult to achieve without establishing viable working relations between all stakeholders. The future of Indonesia's forest resources is tied to the ability of communities, local government, and the private sector to enter into and respect equitable agreements. In 5-10 years, many companies now working in forestry will be out of business. The more progressive companies openly acknowledge that their future is linked to the question of community-managed forests and developing lasting relations with them. Overlapping interests exist in most cases and it is now a matter of negotiating and formally finalizing mutually beneficial arrangements.

2 Accelerated deforestation often results when local government and communities are not properly prepared for the decentralization of government. Generally, communities and local government in forest resource dependent areas were not well prepared for decentralization. In some instances this lead to local leaders opting for increased revenues through the accelerated liquidation of the forest resource base. However, many forest stakeholders also recognize that decentralization can be the most promising vehicle for sustainable forest management. Given that the enabling policy and legislation are in place and the recognition that additional training is needed at the local level, decentralization could progress rapidly, even in areas where it is viewed as little more than "decentralizing corruption."

3 Access to information technologies can increase community benefits from natural forest management. The availability of rapid and reliable information for communities is critical to their empowerment. Currently, middlemen have a highly efficient information network that allows them to exploit communities for their own benefit. If the same capacity were developed at the community and local government levels, the prospects for institutionalizing sustainable forest management practices would be greatly enhanced. This was often mentioned as a major constraint to sustainable forest management during field level interviews and discussions.

4 Sustainable forest management stands little chance of success without education and awareness programs. Education at all levels is a critical link to developing the basis for effective political support while providing appropriate technical interventions that support sustainable forest management. Proven effective educational strategies in Indonesia include short newspaper articles and handouts, seminars and workshops, and longer-term formal curriculum development (for certificate and degree programs).

5 Diminishing research and technology support leads to missed opportunities and the extension of inappropriate technologies. Although research and technologies are rarely the focus of current discussions concerning sustainable forest management in Indonesia, they could play

an important role in determining the success of this initiative. It was noted in several discussions and interviews that, among other themes, all stakeholders could benefit from improved silvicultural practices, increased support for tree improvement, a diversification of community technologies (more than just mapping exercises), improved forest valuation estimates, and innovative approaches to stakeholder cooperation.

6 Internal migrations often lead to conflict over access and use of forest resources. There are numerous examples in Indonesia where an outside group settles in less populated forest areas and enters into conflict with the indigenous group. Differences in cultures and traditions frequently clash over how the resource should be used and managed. Others sometimes manipulate these tensions to their own advantage. If not carefully planned and implemented, periods of migration often lead to violent conflict.

7 International cooperation is necessary for transboundary forest management issues. Both Indonesia and Malaysia have publicly announced that they are committed to stopping the flow of illegal timber from Kalimantan. However, illegally harvested timber is still crossing into Malaysia and being processed and sold to other countries (U.S., Japan and Korea among others). The CGI has placed forestry as one of the key elements for Indonesia's economic development, and the importing countries listed above are members of the CGI. These links underscore the importance of transparent information exchange and coordination among neighbors and trading partners.

8 The Indonesian forest industry is more diverse than generally reported. The forestry industry is frequently characterized as being riddled with corruption and as being little more than an appendage of the military. However, there are great differences among the companies. Some are in it only to maximize profits today without regard for the future (cut and run) while others are committed for the long haul (companies that have active R&D and community relations programs). This latter group also usually represents the companies looking to develop mutually beneficial relations with local government and communities.

9 The forest industry's international linkages can be used to promote sustainable forest management. Forest companies are usually part of much larger international corporate groups that have a wide range of investors (for example, the California Teachers Fund has millions of dollars tied up in Asia Pulp and Paper, which holds debt in the billions of dollars). Many of them also have working relations and agreements with universities, NGOs, and other organizations. Most companies have policies that call for sound environmental management (and many are attempting to define management criteria and indicators). Consistently poor forest management practices (including conflict with communities) can be brought to the attention of corporate leadership and offshore partners to help influence field-level activities.

10 Donor resources for forestry are less effective in Indonesia when program activities are not geographically and thematically linked. Currently, many planning level decisions are made within the constraints of predetermined area limits that neither reflect ground conditions nor encourage sound forest management practices. Many E/NR practitioners in Indonesia view landscape approaches as an effective means for strengthening geographic and thematic links. USAID Indonesia was a pioneer in this field by beginning NRM activities with a landscape approach in the 1980s (watersheds). However, the mission shifted away from this during most of the 1990s. Other donors and NGOs are increasingly adopting this approach to improve resource effectiveness and impact.

NEPAL

National Level

Background

For generations Nepal's forests have suffered from degradation and deforestation due to pressure from a rapidly expanding population and lack of government control of forest resources. While well noted for its mountain resources that line its northern border, Nepal has important forest resources. The country's forests are divided into two regions, those in the hills covering the mid-sections of the country, and those in the southern Terai region (the predominately flat areas bordering Northern India). The hill forests (covering the mid-lands between the high Himalayan range to the north and the Terai to the south) are made up of mixed hardwood (oak, alder, etc.) or softwood (pine) stands. Many were cleared as the expanding population moved their farms up the slopes from settlements on valley floors. The Terai region (lowland bordering Northern India) holds much of the country's production forest including Sal (Shorea robusta) and Sisso (Dalbergia sisso), important timber species, both heavily cut and exported to India. Each region has its own unique set of socio-economic conditions and physical features that impact forest management. Community management of these forest resources has now been tried and tested during the past 25 years, and seems a very effective tool to arrest forest degradation and improve the benefits derived from the country's forest assets.

The conservation and utilization of Nepal's forests is closely linked to government programs and their ability to conserve and ensure sustainable utilization of the forests. Nepal had been consolidated and governed under a monarchy since the late 1800s. His Majesty's Government administered the country's forests through the Department of Forestry in the Ministry of Forests. The Department of Forestry administers the country's forests through five regional and 75 district forest offices. Each District Forest Officer supervises several foresters and rangers who are stationed at the district office or locally throughout the district. These district based personnel are responsible for extension activities, approving community forestry management plans, and the overall promotion and supervision of community forestry programs. Even with this administrative structure in place the government lacked the resources and trained manpower to administer scattered forests, often located in remote, mountainous areas. All commercial scale harvests of forest products were supervised by, and all proceeds went to, the Department of Foresty.

The Panchayet (a hierarchy of councils in a one-party system) and government-led system of forestry failed to halt environmental degradation of the forests. Community forestry was first envisioned when Nepal's government realized that deforestation had become a serious problem, and that it did not have the resources to effectively respond to the collapse of the nation's forests. The National Forest Policy in 1976 called for involving local communities in the management of local forests.

In the early 1980s programs that enlisted local communities were implemented to protect the remaining forests. The community forestry program was first attempted in several trial project areas in the hill regions. In the late 1980s the government with the help of several donors, put together the country's first comprehensive plan for its forests. The Forestry Sector Master Plan recognized that community forestry should be a high priority with villagers organized into user groups and given the authority to protect, manage, and utilize nearby forests. Government was reluctant at first to deed over this responsibility for fear that villagers would over harvest or otherwise squander these resources.

The rise of democratization in the early 1990s led to increased demand for participation in governance. In 1991, after a short period of political upheaval by those seeking democracy, a constitutional monarchy was installed. With this newfound freedom, the adoption of community forestry began to expand at a quickening pace. Since then the country's forestry picture has been changing rapidly due to population pressure, the advent of development, and new road construction to provide access to many remote areas. Finally, community forestry policy was legally enacted in 1993 through the Forest Act and the policies set up in the Forest Act By-laws passed in 1995. Since the mid-1990s, participatory approaches to natural resource management have increased in acceptance. It has become more common to see local communities use participatory approaches to effectively take responsibility to protect, and productively utilize, nearby forests.

Under these new government rules forest lands were identified as appropriate for "handover" for management by those who on a daily basis use these resources. Villagers were first required to organize Forest User Groups that included all regular users of that forest and to develop an operational plan for the management of the forest. These plans include a detailed forest survey (map and inventory), protection program, demarcation of the forest, plan for the harvest of products (including animal bedding, fodder, fuelwood, and timber), and a plan for the distribution of benefits to the villagers. Once the operational plan was approved by the District Forest Officer, often a process that added delay to the handover process, the community assumed control of the forest. The agreement with the community called for opening a bank account that could be audited by the District Forest Office, regular visits to the forest by government personnel, and that the Forest User Groups setup a User Committee that represented and conducted business on behalf of all users of the forest.

Community Forestry in Nepal is built on the working partnership between the District Forest Officer and a local community charged with protecting a nearby forest. The forest may be productive, with volumes of standing timber and other forest products. However, more often than not the forest would have been degraded from over-harvest and grazing, and desperately needing protection. In many cases these degraded forests recovered relatively quickly as a result of the community's protection.

Once the forest recovered enough so that their forest products (firewood, building timber, or even commercial volumes of timber) were again available for harvest, the users could be rewarded from the years invested in protecting and managing the forest. In the early years of the program this was a dilemma for the District Forest Office and other government agencies charged with administering the nation's forests. These agencies were often reluctant to share the returns traditionally garnered by the Department Of Forestry and now under the Forest Rules due to the villagers and they often blocked permission to harvest forest products.

Most feel that community forestry has emerged as a successful model of local control and participation in natural resource management due to stakeholder participation in the design and implementation of management schemes, with decreased government involvement. While the government, and even donors, were reluctant to hand over forests to community control, many are now learning to listen to end users and stakeholders, and more importantly give the communities the chance to fail.

The Progression to Community Forest Management

USAID has nearly 50 years of experience in Nepal, most of which included investment in the forestry sector. Beginning with forest inventory and management studies in the 1960s, USAID fostered the development of roads that opened up access to heavily forested Terai and the development of production forests and infrastructure (district forestry offices, sawmills, trucking, and marketing capacity). This involvement continued with forest utilization assistance in the 1970s, with several large integrated projects, many of which included focus on forestry or related sectors. Two projects in particular focused on forestry and agriculture in the hills - The Resource Conservation and Utilization Project (RCUP) spanned the 1980s, and the Rapti Project continued well into the 1990s.

In addition, USAID made several investments to help build policy-making capacity through support of the Ministry of Forestry Policy Division through the Forestry Development Project (FDP). Between 1992 and 1995, the FDP was instrumental in helping to organize and get approval for new forestry legislation that lead to the growth of community forestry. Support to the forestry master plan called for increased community forestry and increased numbers of trained personnel. To flourish, Nepal's community forestry program needed more trained personnel, sensitive to local level forest user needs, on the ground working with communities. USAID invested in major improvements to Nepal's forestry training and education capabilities through the Institute of Forestry Project (1989 - 1995). More recently, USAID has supported community-based product utilization and enterprise development through projects such as the forest-based micro-enterprise development and the Dhading Resource Management Project

Forests had been traditionally managed by nearby communities, those that use the forest for a myriad of products and services. Deforestation due to population pressure meant that more and more forests needed to be cleared. With the introduction of increased numbers of livestock and their need for fodder and grazing lands, more land was cleared. As incomes improved, it resulted in more incentives to clear land for agriculture. The forests were first taken under the government's wings through the Forest Nationalization Act of 1957 which allowed the government to take over ownership of all private and communal forest lands. Nothing could happen in the forest without the permission of the Department of Forests. Farmers near the forest could apply to the for permission to extract forest products, but for the most part the forests were "closed."

As the population grew and agriculture productivity declined, pressure increased to clear more land for farming. Increased access to health care meant that birth rates grew and infant mortality rates declined. The result was the country's population grew from 13 million in the early 1970s to nearly 20 million in the late 1980s.

The late 1980s and early 1990s saw pressure by several donors including USAID on the government to clarify and uphold the community forestry policy, which required the government to hand over forests. The government had been reluctant to handover forests to local villagers, but new legislation in 1993 included sections pertaining to community forestry that allowed communities to utilize and sell forest products. Previously, without this clearly spelled out, government officials could tell communities that they could not harvest product for other than subsistence use. Now communities could pay for forest management activities through the distribution (trade) or sale of forest products. This opened the way for more user group formation and their support.

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In 1978 two community forestry laws became the cornerstone for community forestry development in the country, and a model for countries throughout the region. Eventually, Nepal was visited by officials and forest users from other countries to learn more about this model of forest management. In 1989, the Forestry Master Plan was developed and it called for increased release of forest lands to communities. Unfortunately, certain parts of the plan were unobtainable. The plan called for training of thousands of new forestry guards and managers, training facilities in-country were limited and there were no resources to send personnel for training overseas.

In 1995, the Forest Act By-laws provided implementation authority for the Forest Act of 1993. The authority to hand over forests was now decentralized to District Forest Officers, this greatly expanding the efficiency of handover process. By the time community forests were in the system for 10 years or more, they began to produce forest products and provide income to those who had been protecting and managing them.

Further revised in September 2000, the Forest Policy strongly encouraged government agencies to urge communities to take on the management of nearby forests. By June 2002, the Community Forestry Division of the Department of Forests in Kathmandu had recorded more than 11,000 Forest User Groups organized and reported, nearly 900,000 hectares managed under community forestry, and 1.2 million households involved in community forestry. This growth had occurred in just more than 25 years! These large numbers were reported even though numerous districts had not reported all the Forest User Groups organized. In some districts the maximum hectares allowed by the government for community forestry had already been handed over. Communities and the NGOs that support them are seeking ways to get more forest designated as appropriate for community forestry. Until the government designates more of the government forest as appropriate for turning over to communities, villages will manage (or not manage) nearby government owned-forests.

In summary, for more than 15 years USAID has worked to put control of local forest resources in the hands of the local communities, those people most dependent upon those resources. USAID's strategy has been to improve forest management and policy making capability, improve community forestry programs through strengthening public institutions and NGOs, and increase the production from community forests.

To more fully facilitate the implementation of community forestry the process needed to be more participatory, and less "top down" or government dictated. The IOF training was strengthened to include community-based approaches to forest management. Knowing that it lacked the facilities and personnel to effectively stem deforestation and forest degradation, government representatives have now become advisors or extension workers, helping to facilitate handover of forests to villages.

Investments in the forestry sector are coordinated through the Forestry Sector Coordination Committee, which is made up of donors and other key forest players working in Nepal's forestry sector. The committee meets at least once per year and is lead by the Secretary of Forests. It discusses resource and collaboration needs, new project plans, and any new legislation that has been passed or special needs for support in the sector.

USAID monitored the need for and facilitated improved forest research through a variety of projects. USAID through the 1990s was actively supporting improved forest management in 15 districts. While the number of districts directly impacted by a USAID-funded project has decreased in recent years, other donors have filled in and learned much from the USAID-lead experience.

Through USAID's RCUP project, and the Soil and Water Conservation Department, Water Conservation Committees were formed to implement land conservation and forest activities. Planting have increased, soil conservation has lead to forest recovery, and water resources have recovered.

Community forestry officially began in Nepal during late 1970s. Originally, the government was reluctant to encourage community takeover of community forests. However, eventually the government agreed to hand over patches of forests when they thought that the communities would protect the forest. Communities were empowered to decide how their forests would be managed. These often degraded forests flourished under community management and produced forest products and services not provided under the old regime of government control. Now the government had a different set of problems. These communities wanted to cut green timber, sell excess products, all allowed under the forestry policy and planned for under the community forestry management plans. When sales were finally approved and communities began to accumulate resources they faced decisions on where to invest and how to distribute the proceeds. Communities began to build schools, water systems, community centers, and to hire school teachers, support environmental education projects, and fund installation of bio-gas plants. The communities also trained their leaders whose skills enabled them to move on to political positions. Clearly community forestry led to increased governance beyond the scope of making decisions about how to manage forests. Community forestry user groups now join regional and national associations that lobby for better forestry policies. The key lesson is that with more than 11,000 communities now managing forests and the resultant forest-based enterprises, there are numerous community rural development leaders being groomed for roles beyond managing local forests.

Current Situation

The recent emergency situation has greatly limited the ability of government officials to travel to visit and support the formation and operation of Community Forest User Groups.. The army has banned group meetings. Hence, user groups annual meetings (that are mandated through community forest legislation), and executive committee meetings are currently illegal. A more participatory approach has resulted from observing the failed Panchayet and government control methods of forest management and protection. In the 1990s community forestry began to rapidly increase, especially with the advent of democracy.

Many villagers may still be unaware of the government handover of forestlands and more importantly if they are aware, they may not understand how to take advantage of this program. The

results are startling. Where protection has been in place for even a few years, already degraded forests have begun a steady recovery. However, rural Nepalese are not only interested in protecting the forests that surround their villages. They wish to harvest and benefit from the forests. Even with several legal acts in place the Department of Forestry and others seem not ready to relinquish all control.

USAID Involvement

Over a period of nearly 30 years USAID has invested more than $50 million in direct or indirect support of the community forestry system in Nepal. The results of that investment and benefits observed on the ground have been dramatic. For instance, the team confirmed that local community members are learning how to manage financing of community development projects. It is important to note that many Community Forest User Group members, especially women, have gained experience in managing community forest resources. This experience has given them the training, and most importantly, the confidence necessary to successfully pursue voluntary or elected leadership positions at the local and district levels.

The following summarizes key USAID contributions to face issues in the forestry sector:

The Biodiversity Support Project provided local NGO and the IOF with support to foster communities in the Humla region to collect, sustainably manage, and market medicinal plants and their extracts.

Regional approaches now focus on wildlife as a valuable resource, and its protection helps foster economic growth and biodiversity conservation. Protected areas along the border with India, and with Tibet (China) to the north, have been the focus of USAID and other donors.

While data on the number and location of Community Forest User Groups is being collected, it is often not accurate. For instance, in June of 2002 the Department of Forestry data claimed for more than 11,000 Community Forest User Groups organized. But several districts claimed that CFUGs that had been organized and paperwork submitted were yet to be included in the tally.

Biophysical

Forestry baseline information. USAID was one of the first donors to directly supported inventory and other important data collection in support of good sound forest management. This forest inventory system included the establishment of permanent measuring plots. The information was crucial for the Forestry Sector Master Plan, and is still being used today.

As mentioned above, conservation of protected areas has benefited from investments for USAID. The protected areas of Nepal are important to attracting tourists, an important source of foreign earnings. Through several projects USAID has supported environmental education, and the conservation of Nepal's critical protected areas.

Social

NGO development. The capacity for local and regional NGOs to work in community forestry has been greatly increased through their involvement in most USAID projects. Through local contractors like CARE USAID has fostered NGO involvement in all aspects of projects.

Environmental awareness has grown through help for community forestry conferences, and education efforts.

Democratization and governance not just at the community level but at the institution level (Institute of Forestry, Ministry-planning Division, and in the regional and district Department of Forests field offices)

Economic

Non-timber forest products are now widely recognized as important to local economic development and their management important to any forest management scheme. USAID recognized this early on and helped foster inclusion of NTFP education at the IOF, forest research programs, and forest policy development.

Enterprise development, especially through USAID's investments in the BSP and EFEA, are now a cornerstone of USAID's natural resource programs.

Forest economics had been important to USAID. The major firewood study supported by USAID was the first of its kind and has been emulated in several other countries.

Institutional

Policy development. The Forestry Development Project was instrumental in developing policy makers capacity to build and promote sound forest policy in Nepal.

Forestry education. The Institute of Forestry Project supported new curriculum that promoted community involvement. The Institute of Forestry Project helped build a regionally recognized educational institution that develops and hosts workshops in issues important to maintaining social/community forestry in numerous.

Building infrastructure. USAID has played an active role in building local institutions through integrated rural development projects (i.e., the Rapti Project).

Lessons Learned

Considerations for future assistance to Nepal's forestry sector include:

1 Safety for all stakeholders (government and NGO workers, Community Forest User Group participants, etc.) in community forest management will continue to be a concern as long as the civil war continues. With many districts not safe for government or outsider travel, numerous ranger posts, government offices, and infrastructure destroyed by the insurgents, most rural areas are dangerous. Meeting in groups, a key component of Nepal's community forestry program is prohibited as the government fears that Community Forest User Group meetings may be used to recruit for the insurgency. Villagers fear working in the forests, as they may be abducted by the insurgents or shot at by the army as suspected insurgents. Those working with non-governmental organizations are forced to meet with stakeholders and conduct community forestry work using irregular patterns. Sustainable forest management through community forestry will be difficult to continue without assurance of uniform safety for villagers and government/non-government forestry. It may be difficult for USAID to continue working in community forestry if the U.S. government is associated with giving aid to the government to fight terrorism or the insurgency?

2 Education of government personnel in community forestry activities should continue and be expanded. The future of sustainable natural resource management and good environmental stewardship is dependent on increasing awareness of good sound forest management through education at all levels. USAID should continue with support and guidance to continuing education for government and NGO forest practitioners, environmental education for villagers (primary and secondary education), and curriculum development and support for Bachelor's level training at the Institute of Forestry.

3 More land should be designated as ready for community forestry. The Department of Forestry has designated in each district certain forest tracts that are appropriate to hand over to communities. In several districts the handover of these lands has been completed. Hence, the major constraint to further expansion of community forestry is the government's reluctance to designate more land for community forestry.

4 Access to business technologies (marketing, etc.) will help Community Forest User Groups plan for and deal with the need for income generation activities. User groups have a firm understanding of the forests they manage, and for the most part their productive capability. However, they often have little understanding of business practices. The study team visited an EFEA-sponsored workshop for project participants that focused on developing markets for Community Forest User Group products. This is a valuable lesson to be learned, as CFUGs need to know up front about markets for their potential products before they invest in the protection and management of community forests.

5 Government needs to permit more harvesting by Community Forest User Groups. Legally, the government cannot limit harvesting as directed by the approved user group management plans and mandated under the Forest Law. However, in practice most local Department of Forests are still reluctant to allow CFUGs to harvest for sale forest products.

6 Corruption is minimized through community forestry. Though difficult to discuss during our interviews the subject of corruption did come up more than once. Recent efforts by the government to expose and bring to justice corrupt officials have attracted wide recognition and praise by many as a step in the right direction. But is it enough to slow or stop the flow of potential revenues away from supporting management and protection of forest resources?

7 Smuggling of timber into India is a problem in some areas of the Terai. Timber often crosses the border to the larger markets in northern India (especially in Uttar Pradesh). Transnational management of protected areas is supported by USAID (i.e., through the Terai ARC program)

8 Forest certification will help Nepal support good sound forest management and open niche markets for specialty wood products and handicrafts. International recognition for products through certification and other programs will help ensure markets for products (albeit niche markets) and help provide communities with the resources necessary for sustainable management of their forests.

9 Non-timber forest products need to be included in forest management plans. USAID projects have supported the investigation, production, and marketing of non-timber forest products. However, efforts to identify non-timber forest products with commercial potential need to be incorporated into all projects.

10 Donor collaboration by the government has been responsive to Nepal's needs. Donors in the community forestry sector often meet through the guidance of HMG. Each has been designated target districts in which they should focus their projects, to further increase appreciation for community forestry. There is, however, a greater need for increased collaboration. Meetings between donors seem to be held on an ad hoc basis. As community forestry becomes more sophisticated and products begin to move from local communities into regional and national markets, the program would benefit from more regularly scheduled meetings between the government and the donors, and between donors. With project completion and donor resources declining, resultant synergistic efforts (such as to train Community Forest User Groups and extension agents) would be more beneficial.

11 Extension work is required as post-formation support for Community Forest User Groups. The success of the community forest program will be dependent on effective extension work at the village level. A bottle neck in the past has been the development of operational plans and their subsequent approval. In many cases, villagers remain unaware of community forestry or the requirements to receive management rights over their nearby forests. In addition, Community Forest User Groups often lack knowledge of technical forestry. More trained extension personnel helping to form and then support Community Forest User Groups are essential for the program's continued success and more importantly for the conservation and recovery of Nepal's forests. Where projects or government support user groups they flourish and will continue to do so. Many initiatives will be less effective without permanent systems in place to facilitate User Group formation and support them after formation with technical guidance and other support.

12 Limited institutional memory is a substantial problem. Forestry endeavors are long-term activities. It is difficult enough for mission personnel and contractors to develop skills to deal with government and non-government influences on community forestry. However, when local resources are destroyed, it makes the process of fostering good sustainable development even more difficult. (One consultant that was met during the team's visit mentioned that much of the material needed for a fifty year report on USAID's activities in Nepal had to be retrieved from a dumpster.) The USAID mission library had been eliminated. Many files loaded with valuable information about project goals and accomplishments had been removed.

PHILIPPINES

National Level

Background

In 1900, forests covered 70 percent of the Philippines; during the American colonial period the forest cover was reduced to 68 percent. Since independence at the end of World War II deforestation has accelerated even more dramatically, and today forests cover only 18.5 percent of the country.

This rapid deforestation is a direct result of two factors: Intensive logging and overexploitation of select forest species (i.e., Philippine Mahogany) and, forest conversion to agricultural land (population pressure in the agricultural lowlands led to widespread forest clearing in the highlands). If deforestation continues at the current pace, the forests will be reduced to just over 6 percent the total land area by the year 2010.

In the 1960s, the Philippines realized that deforestation was a threat to the nation's social and economic development. As the root causes of deforestation are socio-economic, the country moved to counteract them by developing a strategy to promote "social" or "community forestry". The purpose of this innovative initiative was not only to slow deforestation, but to promote productive on-farm and community technologies and enterprises. The goal of this new approach was not only to increase the availability of wood products, but also to generate income. It was also designed to decentralize some of the management burden from the Department of Environment and Natural Resources (responsible for public domain forests) to local government units and communities.

Social forestry has become synonymous with community-based forest management (CBFM). For the past two decades, CBFM has been viewed as the most effective strategy for addressing the problems plaguing the Philippine forestry industry. As a result, CBFM programs have received substantial donor support, and are still considered the most effective strategy for sustainable forest management. The evolution of CBFM has developed in parallel with the emergence of the government decentralization program that began in the 1980s.

Current Situation

Approximately 53 percent of the Philippines is classified as "forest land" under the jurisdiction of the Department of Environment and Natural Resources (DENR). In reality only 18 percent of this land is actually forested; the rest is either grasslands or degraded forests. Illegal logging continues (albeit at reduced levels due to the diminishing resource base and the establishment of CBFM), and corruption is frequently cited as being the number one obstacle to institutionalizing a sound, long-term strategy that focuses on decentralized forest resource management. Clearly problems remain, but there are numerous achievements that can be noted as a result of the Philippine experience in social/community forestry

At the highest levels of government CBFM still benefits from considerable support. In 1995, Executive Order No. 263 was issued from the President's Office that makes CBFM the official government strategy for the management of forests. EO 263 is also working as an alternative to the Sustainable Forest Act. The act has yet to be approved by government, and is a continuous source of frustration for supporters of CBFM as it is viewed as a necessary step in the process to establish CBFM on a national scale. The act is the first piece of legislation that directly addresses CBFM in the Philippines, and has been pending for 12 years.

A significant amount of legislation and implementing regulations has been developed since 1980 that directly supports CBFM. These were developed in direct response to the rapid deforestation experienced in the previous martial law years. They include the Indigenous People's Rights Act (Ancestral Domain certificate), the Local Government Code and the Protected Areas Act. CBFM is also supported in the Constitution. Within the legislative context, the Philippines has several instruments established to provide tenure to communities and promote CBFM, which include CBFM agreements, Community Ancestral Domain Contracts/titles, and Certificates of Stewardship Contracts.

Timber Licensing Agreements (TLAs), commercial concessions to private companies, are no longer awarded in an effort to clear up corruption and illegal logging. The phasing out of TLAs also contributes to the support of CBFM. The remaining TLAs are being allowed to operate until their agreement expires. Unfortunately, some of these TLAs also cover areas claimed by indigenous (CADC or Certificate of Ancestral Domain Claim) and migrant (CBFMA or CSC) communities. These overlapping claims have often led to conflicts between the communities and TLA holder.

In the field, there are several regions where CBFM has been shown to be effective (mostly Luzon and northern Mindanao). In these areas, CBFM has productively built upon indigenous knowledge and traditional land use systems practiced by groups that include the Ifugao, the Bontoc, the Sagada, the Ikalahan and the Higanonon. In other areas where communities are more heterogeneous, CBFM has been more dependent upon outside projects and agencies to move the process forward. Even in areas where there have been no projects established to promote CBFM, the initiative has benefited and prospered from the presence of programs designed to decentralize government.

Despite CBFM's considerable progress to date, national-level support appears to be ebbing. CBFM is gaining critics (or providing long-standing critics a more vocal platform) because it has not produced results as quickly or as widely as originally envisioned. There have been unrealistic expectations for CBFM; many viewed it as the quick answer to the Philippine's forestry problems during the days of the Ramos government (early 1990s). However, most recent assessments of CBFM conclude that the program was pushed forward too quickly, and that communities were not adequately prepared to absorb the responsibilities associated with CBFM.

Technologies do not receive a great deal of attention in the debate over the most effective way to carry out CBFM. The unstated assumption is that the technologies already exist and that CBFM is mostly a social issue. CBFM timber harvesting and marketing technologies are inefficient, and as a result middlemen, who make the greatest profits, frequently manipulate the system. Tree improvement programs at all levels have been neglected, and in some cases abandoned. Research and technology focusing on non-timber forest products are inadequately funded and supported. Non-timber forest products are not being given sufficient attention in the CBFM framework. Almost all of the focus has been on timber, which is not a viable strategy in many of the CBFM areas. Even where timber is the driving product, CBFM links with the private sector (National Wood Products Association, Sawmillers Association, etc.) are not well developed.

When CBFM was initiated it was envisioned that the private sector (wood processing industry and banks) would play major roles in the development of CBFM. One reason for this rationale came from previous successful initiatives involving the private sector and communities collaborating on forest enterprises. An activity frequently mentioned was the PICOP project, which

focused on setting up enterprise relationships between farmers and the wood industry in essentially an out-growers scheme. The farmers would grow select trees on farm (Gmelina arborea and Albizzia falcataria for pulpwood, Pterocarpus for furniture), which were then purchased by the private sector through pre-arranged agreements. This system worked well for more than 20 years. Although the original business agreements have changed, there are still markets for the tree products and farmers continue to grow them on their individual lots.

In relation to financing CBFM, it was incorrectly assumed that banks would provide reasonable rates on loans to community groups. CBFMAs in fact, cannot be used as collateral with financial institutions as the lands covered by the agreement remain under the jurisdiction of the state. Apparently, CBFM planners overestimated both the banking industries willingness to take risks related to CBFM and the capacity of communities to effectively respond to banking conditions.

The Department of Environment and Natural Resources has been the lead agency in CBFM since its inception. In this regard, it has developed a policy of transforming itself from a regulatory agency into a service-providing (demand driven) institution. This will not likely happen in the near future given the DENR's current structure and staffing. As opposed to efficiently offering needed services, the DENR is now frequently mentioned as the single biggest obstacle to successful CBFM. DENR has made compliance with the rules and regulations for CBFM certification extremely difficult. The stated obstacles (voiced by communities, NGOs, LGUs and some DENR personnel) include felling and transport requirements (communities are not allowed to use modern equipment), excessive taxes on forest products, complex permit systems, and onerous management plan requirements. Furthermore, DENR check points have become synonymous with bribes and "shake down" points. The DENR also suspended new CBFM instruments in 1998. The irony of the Philippine CBFM experience is that the DENR has publicly acknowledged its inability to manage the national forest resource base, but has now created a system (permits, management plan approvals, taxes, etc.) that makes it virtually impossible for fledgling communities to establish sound management practices of their own.

CBFM involves a range of government and community organizations, which makes coordination and transparency difficult to achieve. DENR, as the lead coordinating agency, works with local government units (province, municipalities, Barangay community leaders, LGUs), people's organizations, the private sector, NGOs, and donors. Those who are opposed to CBFM (both within and outside of DENR) often play one group off another to their own advantage. Most donors are frustrated with the performance of DENR and have pursued innovative alternatives to support CBFM efforts. After being a pioneer and major supporter of the sector, the Ford Foundation is pulling out of CBFM within the next 2-3 years and will be closing its office in the Philippines. For many of the same reasons, USAID has opted to support CBFM by working with LGUs under the EcoGovernance program.

While most of the blame for CBFM's difficulties is attributed to the DENR, the donors are not without fault. The Asian Development Bank is frequently criticized for providing resources to communities without the proper training necessary to manage the funds. With regard to DENR reform, the donor community appears to be confused and not in unison as to what actions should be taken. The situation is much the same with corruption, which has plagued the forestry sector for many years. Transparency International recently rated the Philippines next to last in Asia in terms of transparency (only Indonesia received a worse rating). In addition, the development of CBFM has suffered from excessive expectations and an uncoordinated approach from the donor community.

While CBFM dominates the forestry sector, less well publicized is the significant evolution of the Philippines protected area management system. Forest PAs comprise about 5 percent of the country's forest resource base, and fall under the jurisdiction of the Parks and Wildlife Bureau of the DENR. Each PA has established a Management Board that is chaired by the DENR and has members from LGUs, NGOs, and other stakeholders. The boards are responsible for setting up multiple use access zones for the collection of select forest products (vines, medicinals, and other traditional uses). They also generate revenue from entrance fees, research fees, telecommunications (user fees where radio towers/stations are located in a PA), water user fees and ecotourism (where it is developed). A percentage of the revenue is then distributed to the local POs for community development. This system is relatively new, but is credited with improving PA protection.

Finally, armed conflict is a major constraint to the establishment of sustainable forest management. This is especially true, but not limited to, Mindanao where rebel movements and insurgencies have affected the region for decades. Forests are used as a base for rebel groups and terrorist operations (especially in Southern Mindanao) as well as a sanctuary for villagers hiding from rebels or other assailants. Reports also indicate that forest products from these areas may also be used to support the conflicts. On a more local scale, there has been conflict over forest resources in other parts of the Philippines. This past year alone saw two CBFM members in Luzon assassinated by agents associated with illegal loggers.

Although challenges still remain for social forestry (CBFM), the program has evolved significantly since the 1960s. As with most development programs, progress has been remarkable in some areas and more difficult to attain in others. Despite the setbacks and its detractors, CBFM is still viewed as the best means of moving toward sustainable forest management in the Philippines. The Philippine experience in CBFM is long and extensive, for this reason the Philippines provides a wealth of lessons for institutions and individuals interested in community benefits from forest areas.

USAID Programs and Projects

USAID has been consistently at the forefront of support to social/community forestry and CBFM in the Philippines. For more than 20 years USAID has provided assistance, first through the Rainfed Resource Development Project (RRDP) from 1982 to 1992, and subsequently through NRMP I and NRMP II. RRDP marked a shift in the mission's development strategy. During the 1970s the focus was on agricultural development of lowland areas. Through RRDP the mission refined its development strategy by also addressing environmental degradation and social forestry in the deforested upland areas. Activities focused on farm forestry, reforestation, and natural forest management. RRDP was innovative as it used the landscape (watershed) as the planning and activity context to address farmer's needs. It also helped move the Forest Department away from the widespread deforestation of key watersheds (commercial timber extraction). RRDP was funded for $32 million, with $11 million earmarked for the social forest component. The lessons learned from this project were largely incorporated into the implementation of the NRMP projects.

Expanding on RRDP forestry work, NRMP I (1991-1995) and NRMP II (1995-2000) included a policy component designed to promote CBFM. Through CBFM, NRMP continued to focus on upland communities for the protection and improved management of natural forests. In addition to forestry, NRMP also contained components that included industrial pollution manage-

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ment, environmental monitoring, and coastal resource management. Evaluations of NRMP indicated that the program lacked an integrated approach to the implementation of the various components. This is in part attributable to the fact that NRMP worked in three different yet related sectors (CBFM, coastal resources and waste management), and with three different government institutions. NRMP and the mission have also provided some support to protected area management. The total cost of NRMP is listed at $125 million.

Another mission program that has had a significant impact on CBFM is the Governance and Local Democracy Project (GOLD). GOLD began in 1998 and ended in 2000, it was operational in 9 provinces. Although the GOLD project was not designed to directly address CBFM, it had a very positive impact on the process in all provinces, which serves to underscore the links between CBFM and decentralization initiatives throughout the Philippines. GOLD's contributions to CBFM are perhaps most evident in the province of Nueva Viscaya, where it worked to link local government units with the NRM II project.

Nueva Viscaya is generally recognized as having the most advanced CBFM project in all of the Philippines. Its governor, Agbayani is credited with moving the province rapidly toward decentralization through a grass-roots democratic approach. Given Nueva Viscaya's status as one of (if not the most) important watershed province in the Philippines, CBFM has become a key component of the governor's development strategy and has provided very positive results. The governor, provincial administrators, PO leaders and others credit the development of CBFM through the GOLD project for assisting Nueva Viscaya's development and supporting its vision. The province leaders readily admit that without the GOLD project many of their accomplishments would either have been delayed or never realized.

USAID is still providing support to CBFM through the EcoGov program, which began in 2001. EcoGov represents the mission's effort to effectively build upon past accomplishments under NRMP and GOLD. Resources for EcoGov are significantly less than the NRMP programs, and as a result, EcoGov is supporting CBFM only in select areas. Finally, it should be noted that USAID funding for the Philippines has dropped off dramatically since the closing of the U.S. military bases in the early 1990s (Clark Field and Subic Bay).

The following is a summary of achievements in natural forest management attributed to support from USAID Philippines.

Biophysical

Forest management. USAID assistance to CBFM (through NRMP) has directly led to the improved management of more than 600,000 hectares of natural forest throughout the

Philippines. Most of these areas are now under management structures that are run by communities in association with local government institutions. Of the 95 CBFM activities that have produced management plans approved by DENR, 75 of them are CBFM communities that received USAID support.

Forest protection. Through CBFM communities have increasingly taken over responsibility for the protection of natural forests. Where this has taken place, there has been a sharp reduction in the number of forest fires and illegal logging.

Deforestation. Deforestation from land clearing and unsustainable logging practices has been reduced in all sites that received USAID assistance.

Watersheds. USAID was among the first organizations in the Philippines to use landscape elements (watersheds) to plan and implement programs. In most locales, this led to a more effective use of available resources for both productive enterprises and environmental conservation. Watershed management has since become a vital part of the Philippine's national development strategy.

Protected area management. USAID is also supporting PAs in the Philippines through NGOs. Among the most prominent initiatives is Conservation International's corridor (landscape) program for Sierra Madre National Park, which began in 1999 and is making good progress.

Research. Through the NRMP project, USAID supported the conduct of the videography of all the remaining closed canopy natural forests in support of the NIPAS law. This also supported the implementation of the policy to ban timber harvesting in old growth areas, and also the installation of management systems in the Mt. Matutum Protected Area and the Bicol National Park.

Social

Tenure. Tenure and resource access have been secured for many CBFM communities that have taken advantage of the existing legislation and policies supporting the decentralization of natural resource management. USAID has continuously supported such initiatives. In addition, USAID helped the policy dialogue by funding a number of community case studies that focused on tenure and property rights. USAID also played a key role in developing tenure systems in publicly owned forests and forest lands.

Community mapping. Community mapping exercises have been extensively used in the Philippines as a step in the process of setting up CBFM (and community resource management in general). Mapping not only highlights the actual and potential value of resources within the community, but it has also proven to be an effective tool in preventing resource conflict. Most USAID projects use community mapping as a development tool.

Community monitoring and evaluation. USAID support has also led to community capacity development for monitoring and evaluating CBFM work. Community training and monitoring and evaluation guide development were among the activities developed with USAID assistance.

Community environmental officers. USAID work through CBFM also helped initiate and support the development of Barangay Environmental Officers, who are responsible for coordinating environmental issues at the community level.

Democratization. Both NRMP and the GOLD project helped LGUs public participation, the management of the devolution and democratization initiative. Both programs also provided communities with conditional grants (about 50 percent of the LGU grants under GOLD are environmental projects).

Economic

Enterprise development. NRMP provided communities with the training and materials necessary to foster enterprise development. Technical assistance has also been provided to DENR in its stated objective to become more service oriented and managed like a demand-driven service provider.

Financial management. EcoGov is also providing communities with assistance in enterprise development by refining skills acquired under NRMP in financial management and economic analysis of CBFM sites (especially with regard to determining annual allowable cuts). This work is currently being implemented by Enterprise Works, an international NGO.

Economic analysis. NRMP worked closely with a number of CBFM communities to develop economic feasibility case studies for CBFM. The case studies led to a series of workshops and training programs geared toward increasing the viability of sustainable forestry.

Increased income and employment. CBFM has led to increased income and employment opportunities for upland communities (commonly cited as having the lowest per capita income). In some CBFM communities as much as 40 percent of the population is deriving direct employment benefits from CBFM.

Government savings. It is estimated that the government is saving 127 million pesos annually on protection costs through CBFM by allowing communities to manage and protect their forests.

LGU funds to CBFM. The development of CBFM has led to LGUs contributing funds and materials to communities for the management of forests found in their jurisdictions. LGUs are supporting the development of land use plans, road rehabilitation, and projects directly related to livelihood improvement.

Institutional

DENR. The Department of Environment and Natural Resources has been a prime recipient of USAID support. DENR has received materials and training in communications, information management (including GIS), enterprise development, marketing, environmental education, mapping, land use planning, and protected area management. USAID has also commissioned several studies designed to address issues related to CBFM (i.e., logging ban analysis among others)

LGUs. LGUs have also received considerable support from both NRMP and the GOLD project. In addition to some of the technical areas listed for DENR, USAID sponsored a "Manual of Procedures for DENR- LGU Partnerships on Devolved and Other Forest Management Functions." This was designed to facilitate the hand over of authority from DENR to LGUs by creating partnerships between the two agencies. Successful work between DENR and LGUs is best evidenced in the province of Nueva Viscaya where the LGU and DENR have developed a working relationship that has won awards for innovation and excellence in local government.

People's organizations. POs, and the more recently developed Federations of POs, have also received training from USAID support. PO Federations are relatively new and designed to provide POs with critical technical guidance and assistance. Limited experience in parts of the Philippines indicates that PO Federations can be effective mechanisms in strengthening and empowering POs.

NGOs. NRMP awarded a range of grants to international and national NGO's for community mapping, capacity building/priority setting workshops, and enterprise development.

Timber Licensing Agreements. Timber Licensing Agreements (TLAs) were the instrument used by DENR to transfer management of forests to the private sector. TLAs were very common before the growth of CBFM. At that time community benefits from timber harvesting were limited and a number of the TLA arrangements were corrupted. With USAID support, TLAs have been progressively phased out; most of the areas formerly under this arrangement have been turned over to CBFM communities.

Codes, policies and legislation. USAID has been a leader in promoting a range of codes, policies, and legislation that supports CBFM work. Perhaps the most significant is Executive Order 263, which was designed jointly by NRMP and DENR staff and signed by the president in July 1995. EO 263 established CBFM as the official policy of the Philippine government for sustainable forest management.

CBFM as a national program. With USAID policy and program assistance, more than 3.8 million hectares of forestland have been put under the CBFM system. Within this context, a number of key steps have been taken to empower communities and promote decentralization (methods to define communities, incorporate communities, define boundaries, and develop management plans, tenure rights, and criteria to safeguard environmental standards). The process involves not only the communities and DENR, but LGUs, POs and NGOs, financial institutions, Congress and the private sector as well (to varying degrees).

Governance as a special objective. The special objective on governance was spread out among all technical SOs within the Philippine mission, but was focused across disciplines on transparency, accountability and participation. This has enabled the technical programs to benefit from the crosscutting support that Democracy and Governance activities can provide. Democracy and Governance also allows the mission to support CBFM without making the DENR the focal institution for implementation (current Ecogov program is dealing much more directly with the LGUs).

U.S. funds through the International Timber Trading Organization (ITTO). US Government funds are effectively being used to support CBFM in the Philippines through the ITTO (including 3 CBFM sites in Nueva Viscaya).

Lessons Learned

1 Forest protection increases when communities are empowered to manage and utilize their own forest resources (through tenure and access). Before social forestry and CBFM took hold in the Philippines, the upland forests were threatened with fires, conversion and illegal logging. The government decision to move ahead with social forestry and CBFM was largely predicated on the assumption that DENR lacked the human and material resources to adequately protect the forest estate, and that the most rational way to address this issue was by empowering communities to take over this responsibility. In areas where CBFM has taken hold, incidences of fire, illegal logging, and deforestation have dropped off dramatically, proving that those assumptions were correct.

2 Sustainable forest management strategies need to look beyond benefits obtained from timber; non-timber forest products and environmental services are underutilized and undervalued within CBFM. A key feature of CBFM is sustainable resource use for improving livelihoods. To date, timber has been the product driving the process. In many sites, CBFM's focus on timber has led to the exclusion of other valuable non-timber forest products and services. Underutilized products include carvings, medicinals, forest foods, grasses, ornamentals, and others. Although limited "total forest valuation" work has been completed, there are several recent forest valuation studies that provide useful estimates for certain values. In the "watershed provinces," user fees for forest resources and services (i.e., water, grazing) are being negotiated with downstream beneficiaries.

3 CBFM has been most effective where it has active participation by the Local Government Units (LGUs). Institutional issues involving CBFM are complex since it involves a range of different organizations and agencies (DENR, LGUs, POs, NGOs, communities, and donors). Technical services (NGOs and DENR), approvals from DENR, transparent representation by POs, and the efficient use of donor resources are all enhanced when the LGUs play a lead role in supporting CBFM in their area.

4 Community-based forest management is a vehicle for democratization and the decentralization of government. CBFM has played an important role in democratization and the decentralization of government in the Philippines. This is evident in provinces like Nueva Viscaya where the national League of Governors has asked Nueva Viscaya for technical assistance in decentralization (including CBFM). The other eight provinces that have received support from the GOLD and NRMP projects are also sharing their expertise with the League of Governors.

5 CBFM takes hold most rapidly in indigenous communities. CBFM has rapidly taken hold in communities that share cultural traits and identities. One reason is that these communities tend to view resource issues in a similar way, and therefore it is often easier to gain consensus on how best to use resources. In these communities, CBFM is most effective when it is tailored to build upon the traditional forest management systems.

6 CBFM can strengthen community structure. In more heterogeneous communities (recent immigrants or combinations of different ethnic groups) CBFM has been effective in encouraging community cohesion through collective problem solving. In this sense, CBFM is also a catalyst for the development of community structure. These communities usually need outside assistance to get CBFM moving forward, and they are more likely to develop CBFM around a central economic enterprise activity.

7 CBFM acts locally, yet it is an important tool for shaping land use management on larger scales. Social forestry and CBFM resulted from the recognition that destructive practices in the highland lead to negative impacts in the more densely populated lowlands. This was also the USAID thinking behind the design and development of RRDP in the early 1980s. The key feature of this approach was viewing the upland forests as integral parts of broader landscapes extending downstream to the lowland agricultural production areas and coastal zones. The effectiveness of CBFM in the highlands determines, to a great degree, how effectively resources can be managed in other parts of the Philippines.

8 Protected areas can benefit from the CBFM process. While the vast amount of CBFM experience centers on long-term tenure/access to areas for logging, many of the same principles are being applied to protected area management for non-timber goods and services. Although this is relatively recent, feedback from the field is thus far encouraging. Protected areas do benefit indirectly from the CBFM process through the effective management of buffer zone areas and the eventual crafting of CBFM-PA tenure instruments for communities in buffer and multiple use areas.

9 Security of tenure can provide incentive for more effective CBFM operation. Where tenurial security of CBFM participants has been assured through appropriate instruments (such as CSC, CBFMA, or CADC, CBFM) projects have been more effective and sustainable.

10 When embarking on new national resource management strategies, institutional reform should be part of the implementation plan. DENR has been the recipient of generous donor support in the effort to move CBFM forward. While this investment has provided some positive change, the accomplishments of DENR in relation to its stated CBFM objectives during the past fifteen years falls short in most areas. In fact, those working with CBFM today cite the DENR as the single biggest obstacle to CBFM's growth and effectiveness. DENR as an institution is excessively large, bureaucratic, and outdated relative to its stated mission (emphasis on service provision as opposed to control and protection). Unfortunately, some DENR personnel view the decentralization of forest management (CBFM) as a threat to justified (or historic) rent-seeking activities.

GUATEMALA

National Level

Background

Guatemala is a small Central American nation that is divided into three regions: the Pacific coastal zone, which is known for commercial agricultural production (limited natural forests); the densely populated mountainous region which includes a series of volcanoes and ruins (that are part of a chain that run from Mexico to Honduras and El Salvador); and the limestone based plateau region in the north (the Peten region), which is part of the Yucatan peninsula. In addition to the Pacific Ocean in the south, Guatemala is surrounded by Honduras and El Salvador in the southeast, Belize in the northeast, and Mexico in the north and west.

Guatemala gained independence from Spain in 1821. For much of the past century Guatemala's political, social and economic development has been heavily influenced by its neighbors, especially the United States. Following World War II, democratically elected administrations began looking at ways to grant farmers greater access to land. In this regard, they developed plans to buy back uncultivated land from private plantation holders so they could be sold at subsidized rates to subsistence farmers. Within the context of the cold war, these activities were viewed as a threat to the U.S. company, United Fruit (a major landholder). At the height of anti-communism (McCarthy era), the land reform movement in Guatemala was being portrayed as a communist threat to the U.S. As a result, in 1954 with direct support from the CIA, the government was overthrown, which set the stage for 36 years of military rule and over 30 years of civil war and violence.

Culturally, Guatemala's population is divided into two large segments: the Ladinos, who have some European lineage, and the indigenous Amerindian population that consists mostly of Mayans. The Ladinos are predominantly considered the ruling class, occupying most important posts in government and industry. They have controlled Guatemalan politics since independence and make up just over half the population. The Mayans are predominantly agriculturists. The center of Mayan civilization in its time (some 1,000 years ago) was Tikal in northern Guatemala (Peten region). Many Mayan farmers eventually settled in the highland areas of central and southern Guatemala, but extensive agricultural practices, a rapidly growing population and insecurity have brought many Mayan back to the Peten over the past two decades. Guatemala has the highest percentage of indigenous people as part of the general population among all the Central American countries. Peace accords were signed in Guatemala in 1996, officially bringing an end to more than 30 years of armed conflict. In 1999 the findings of a Truth Commission supported by the United Nations found that the Guatemalan military was responsible for 93 percent of the crimes committed during the war..

Forestry has been the domain of national government throughout the postcolonial period. Most of Guatemala's natural forests are located in the Peten, and are primarily tropical evergreen broadleaf forests that contain a number of locally and internationally valuable timber species (mahogany, *sweitenia macrophylla*, and cedrus- *Cedrella odorata*, among others). Forests in the highlands are predominately pines and pine/oak complexes that have been severely degraded and deforested, which has led to the deterioration of watersheds and the acceleration of soil erosion. Agricultural productivity as a result has steadily declined and is the main reason why there is a continuing migration to the forested regions of the Peten.

Forest industries are not a major part of Guatemala's export economy, although there has been a steady international demand for timber and non-timber forest products for generations. The high-valued species listed above are still exported and non-timber products such as chicle, allspice and xate (a native palm) are still regularly collected for export. Chicle is extracted from the inner bark of certain trees and used for the production of chewing gum. Allspice is still regularly exploited and the demand for xate, which is used mostly by the florist industry in the United States, is increasing. Fuel is the most common domestic use for Guatemalan timber.

Forestry was part of the Ministry of Agriculture and Livestock for many years. More recently the National Forest Institute (INAB) was formed to assume management and oversight responsibilities for all issues related to forestry. Much of the forestry work conducted in Guatemala today focuses on the establishment of plantations, mostly in the highlands. The government has an ambitious plantation program that is averaging an annual reforestation rate of about 15,000 hectares. INAB is responsible for the management of all natural forests that are not found within protected areas. Guatemala also has an extensive protected area system that covers almost 23 percent of the country.

The forests of the Peten are well known for their rich biodiversity and cultural significance. Tikal, the historical center of Mayan civilization, is located in the Peten. Recognizing the importance of this region, NGOs, universities, and other organizations became advocates for elevating the conservation status of these forests in the 1980s, and by 1990 a proposal to establish the 1.5 million hectare Mayan Biosphere Reserve (MBR) was accepted by the Guatemalan government. The proposal called for zoning the MBR into areas that were set aside for core nature areas (no extractive utilization allowed) and multiple-use zones. The multiple-use zones comprise roughly 800,000 hectares. The MBR is the largest and most important protected area in Guatemala and is part of a much larger transboundary resource shared with Mexico and Belize. The National Council for Protected Areas (CONAP) is responsible for the management of the MBR.

Current Situation

Guatemala is at an important crossroads in its national development. While it has been seven years since the peace accords were signed, the transition process has not been easy or without violence. There are still parts of the country that suffer from insecurity involving armed groups. Overland transportation is periodically interrupted at gunpoint. While progress has been made in fighting corruption and improving transparency, there is still a considerable amount of work that needs to be done. Moreover, the optimism that followed the peace accords is slowly eroding under the most recent government. Many in Guatemala (including the international community) are concerned that the current administration will revert back to politics of unstable times. The president and many senior administration officials (some who have returned from exile) are known for their connections to past administrations when terror and human rights abuses were commonplace.

In some ways natural forest management and conservation are at a crossroads as well. Migrants from the overpopulated highlands are moving into the Peten at unprecedented rates, and remote sensing analysis of land-use patterns reveal contrasting trends. In the western part of the Peten, near the MBR "buffer zone" protected area, migrants are clearing the more accessible forest for extensive agricultural practices. As a result, deforestation rates are very high, even within or around the protected areas. In the eastern multiple-use zones and around the protected areas, deforestation has virtually come to a halt. It is in these areas where the government has granted

low-intensity logging concessions to a range of communities. It remains to be seen if the ecological-socio-economic dynamic taking place in this part of the MBR will spread to other parts of the Peten and beyond.

Communities engage in forestry on a seasonal basis and use it to augment production and income generated from other livelihood activities. The adoption of reduced impact-harvesting techniques and guidelines for allowable cuts has been carefully followed. Extraction practices employed in the concession forests are efficient and ecologically sensitive. Nurseries are well managed and enrichment plantings are moving ahead as scheduled. Interviews with some of these community members indicate that the system is progressing well, but warrants continued support and monitoring.

The communities in the forefront of the forestry concessions are ones that have historically practiced non-timber forest enterprises. The extraction of the more traditional non-timber forest products continues to play an important role in local livelihoods. Some conservation groups are also experimenting with management techniques that could increase the productivity of these enterprises, making them even more profitable for communities.

Modest ecotourism activities are also being integrated into community enterprise work. This part of the MBR has a number of Mayan temples in various stages of rehabilitation (excavation). Although the overwhelming majority of tourists head straight to Tikal National Park, a slow but steadily increasing number are starting to visit the more outlying ruins as well.

Many of the forestry communities are looking to the certification process as a means of addressing donor concerns for sustainable management, as well as gaining access to new markets to improve product value. By 2002 more than 400,000 hectares of forest had been certified in Guatemala. This makes it the fourth-ranked country in Latin America in relation to total hectares of forest certified (behind Brazil, Bolivia, and Mexico).

While certification in the MBR is advanced in many communities, others are still beginning the process. Overall, certification in Guatemala still suffers from difficult market access, overreliance on mahogany (Swietenia) and cedrus, and high costs. Smartwood is currently working with communities in the Peten to implement methods that reduce costs by increasing collaborative agreements between the various community forestry enterprises.

Another effort to consolidate and increase the efficiency of community forestry operations has led the communities to form the Community Forestry Association of the Peten (ACOPOF). ACOPOF works to increase information flow, especially in regard to markets, and to promote species other than mahogany and cedrus. The association recently won an award for its work with communities at the World Summit on Sustainable Development in Johannesburg, South Africa in September 2002. Another award was given to the communities of Uaxactun and Carmelita for their work in the sustainable utilization of forest resources.

Communities have also received support from local and international NGOs including ProPeten, Central Maya, CATIE, Rodale, The Nature Conservancy, CARE, and Conservation International. ProPeten at one time worked directly with Conservation International until CI turned away from timber harvesting as a viable method of implementing sustainable forest management and opted to concentrate on non-timber forest products. At one time CI promoted its conservation concession plan by offering communities and the Protected Areas National Council (CONAP) financial incentives to abandon sustainable timber extraction. Both the communities and CONAP refused and subsequently CI has concentrated on other activities.

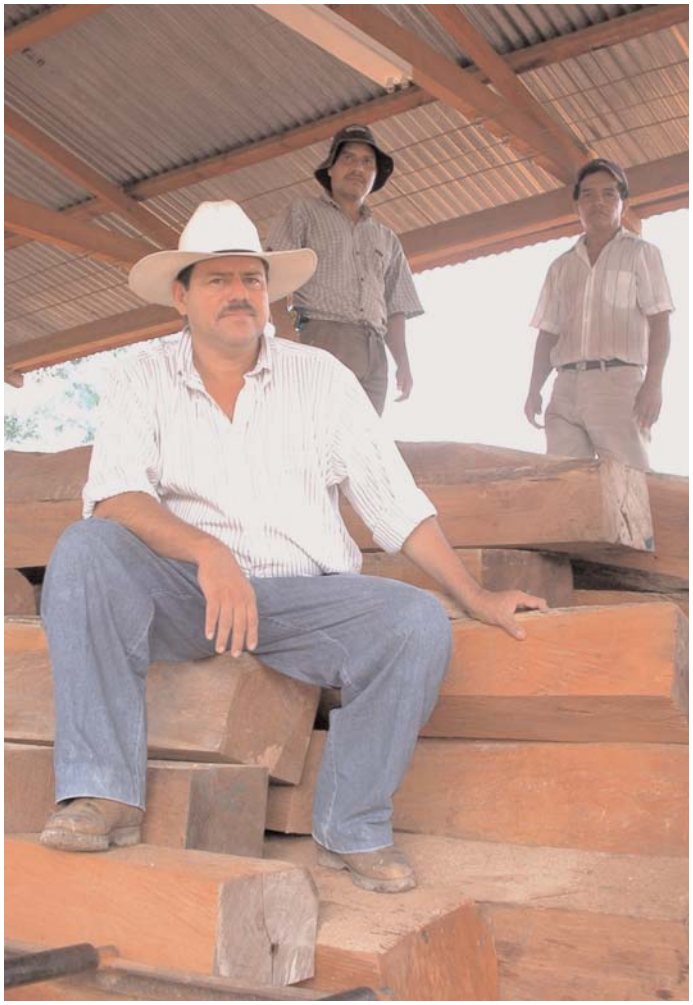
There are indications that entrepreneurs from the local forest industries would like to develop closer business relations with the forestry communities. Understanding that standing stocks of valuable timber species are limited, some forest companies see their future linked to developing equitable and profitable arrangements with community forestry operations. Historically, this was difficult to do with the high levels of corruption and the insecurity that had plagued the region. With the enabling environment improving, the chances of developing mutually beneficial arrangements between industry representatives and communities are steadily increasing.

All stakeholders note, however, that certain key issues need to be addressed before forestry, whether at the community level or with industry, can be considered successful over the long run. Most of the issues focus on the diversification of species, products, and skills. It was noted earlier in the report that the emphasis on mahogany and cedrus is a limiting factor. For products, both communities and industry will have to respond rapidly to national and international markets as the demand for forest products changes (plywood, pre-fab houses, and non-timber products). This also highlights the need for additional research into NTFPs as well as other product needs. Finally, vocational training for communities needs additional attention. This includes, but is not limited to improving skills in carpentry, furniture making, and tourism services.

CONAP's ability to monitor and oversee all activities in the MBR is challenged by the size of the MBR, the scale of activities, and inadequate coordination with other agencies. With USAID and other donor assistance, CONAP has managed to install a physical presence in the region and generate a wealth of baseline information that is being used by a range of stakeholders. With GIS, CONAP has produced number of useful maps that are being used by government agencies, donor institutions, NGOs, communities, and the private sector. CONAP has also developed synergy with other important national institutions and programs by assisting with the national land cadastre and as well as the most recent comprehensive census of the Peten (supported by CARE in 1999).

While CONAP is pleased with developments in community forest concessions, it is concerned with the deforestation in the rest of the MBR, especially in the protected areas. Collaboration between CONAP and local police authorities is unsatisfactory, and perpetrators of illegal land speculation schemes frequently go unpunished. CONAP activities with other local institutions (municipalities) in those areas are not adequately coordinated.

GTZ funds several projects that have a direct relation to the management of the MBR including the Decentralization and Municipal Support Program, which works to strengthen the capacity of local



David Gibson/Chemonics International

development councils and municipal administrations as well as to promote environmentally sustainable economic development. The project has adopted a strategy that uses local forests as a vehicle to promote decentralization objectives, which is being applied to many of their target communities throughout the country. This project works closely with INAB, CONAP, and another GTZ initiative, PROCAP, which is designed to develop SMEs in the forestry and agricultural sector and the Rural Management of Natural Resources Project, a CBNFM initiative working in the Peten with communities and government agencies.

USAID Projects and Participation

USAID support to Guatemala's forestry sector began in the late 1970s with highland initiatives to protect watersheds, conserve soils, and increase agricultural productivity. These projects employed a range of technologies, some of which are still used today. Most mission support was channeled through NGOs.

Project evaluations were generally mixed. NGOs introduced productive technologies that assisted watershed protection and increased on-farm productivity, but sometimes at a considerable cost due to missed opportunities. In an effort to introduce technologies proven to be effective elsewhere, NGOs frequently overlooked less complex technologies that build on traditional systems. At times they also failed to adapt to changing situations and circumstances. From an institutional standpoint, the rapid increase in the number of international and national NGOs operating in this sector fed a cycle that required quick impacts while developing new proposals to take advantage of available funding. In the end, their effectiveness may have been compromised by their inability to stay focused.

Near the late 1980s the Guatemala mission turned its attention toward biodiversity conservation, and in 1990 a consortium of international and national conservation NGOs, together with CONAP, received a grant from USAID for the management and conservation of the MBR. The MBR project became the focus of the mission NRM program. The project was designed to conserve the biodiversity of the MBR while improving the conditions for economic development in the region.

The period of 1990 through 1996 was for the MBR project. Some activities progressed, but overall CONAP and its NGO partners were struggling to move the conservation and economic development agenda forward given political instability, increasing in-migration to the area, and the institutional limitations to address such problems. This was also a time of widespread corruption, violence, and a lack of law and order. The peace accords of 1996 improved the overall context for project management, but CONAP was still faced with a stream of returning refugees seeking land. Refugees from the north (Mexico) and migrants from the southern highlands put considerable pressure on CONAP and the government to find solutions. Many of these people have been settled in areas just outside the MBR, while others continue to settle inside the reserve.

CONAP started awarding forest concessions to communities in 1994. This program has grown rapidly and as of now there are more than 312,000 hectares in FSC-certified community concessions, mostly located in the eastern Peten. CONAP also awarded several large scale industrial concessions in parts of the MBR that total more than 100,000 hectares. As indicated above, the forest has been very well conserved. in areas where CONAP has awarded concessions.

Currently, the focus in the Guatemala mission is on good governance, economic development, and food security. The place for NRM within the mission portfolio is still being debated.

The following is a summary of contributions that USAID has made to the Guatemalan forestry sector.

Biophysical

Natural forests better managed. Since the inception of the USAID-funded MBR activities, more than 600,000 hectares have been awarded by CONAP to communities and industry for concession agreements. The management and conservation of these areas is improving significantly, especially when compared to other parts of the Peten where access/tenure has not been granted.

Management plans developed. As part of the concession process, management plans have been developed for both the community concessions as well as the industrial concessions. Many of the plans have also been developed to address requirements of the forest certification process.

Maps and other management tools. USAID support to CONAP has facilitated the development of comprehensive land use maps that are being used by a broad range of stakeholders for land-use planning and other activities. The maps are also generating much needed revenue.

Baseline information. The level of ecological and socio-economic baseline information for the MBR has increased since USAID funding began.

Biomass production. The watershed projects of the southern highlands have contributed to the production of vegetative covering for soil conservation and on-farm production.

Watersheds conserved. Although problems remain, watersheds receiving support from USAID have benefited from some levels of conservation.

Social

Community strengthening. Given the social dynamics of the Peten prior to and since the peace accords, community forest concessions have helped civil society growth and development through improved communications, training and collaboration.

Building on traditional knowledge. The community concession activities have been successful to date in many communities where there is a tradition of forest enterprise activities from non-timber forest products (allspice, chicle, and xate). Working with communities that possess this level of experience has helped the forest management work get off to a good start.

Assist the repatriation process. The project was initiated at a time when many refugees returned to the area. Some of them had gained forest management skills while in Mexico. Community forest management helped reintegrate the refugees by providing them with an avenue to productively apply their skills.

Capacity building. Communities have been trained in a range of skills and activities that help them manage community forest concessions as well as other productive enterprise initiatives.

Economic

Increased revenue from forest enterprises. Project activities to date demonstrate positive trends in relation to income generation for forest enterprise activities. During the life of the project, community revenues have increased by more than 100 percent.

Collaboration with private sector - There is a growing concern that present stocks may not be sufficient to keep up with demand or processing capacity. Linking the private sector with the community concessions is a possibility that is being considered for additional community support under USAID-funded activities. If correctly carried out, productive agreements could be developed that benefit all parties.

Certification. Project support has helped move the certification process along in Guatemala. Currently, Guatemala is the global leader in certified forests managed by communities.

Other enterprise activities. Communities engaged in forest concessions are also generating income from the non-timber products and to a degree from ecotourism development as well. If peace and stability are fully restored in the MBR region, then communities can anticipate a considerable upswing in tourism, which will increase demand for services that are not currently being provided. In addition to Tikal, some of the smaller temple sites will be more frequently visited. While current tourism levels outside of Tikal are very modest, ongoing work in this area is preparing communities to integrate these enterprise activities into their livelihood strategies.

Institutional

Inter-institutional collaboration. MBR activities facilitated the exchange of information and testing of technologies that not only benefit the local communities, but similar projects and programs in the region as well. The involvement of CATIE, the international NGO community, ACOPOF, and other donors present communities with a range of options to improve livelihoods.

Replication. Many MBR activities were tested and developed under the BOLFOR program in Bolivia. Now experiences in the MBR are being considered for replication (at varying stages) elsewhere.

NGO and CONAP capacity. The MBR project has helped both the NGOs and CONAP develop their capacity through training, materials, and financial support.

Lessons Learned

1 Guaranteed access/tenure is a precondition for increasing community benefits from natural forests while conserving the resource base. In a relatively short period the effect of policies and programs that promote community participation in the management of local forest resources is having a profound impact on land use practices. The evidence provided by remote-sensing imagery that shows how applying different land-use management strategies to the same area can lead to very different results is compelling. Forest conservation has been enhanced in the multiple-use zones where communities are actively participating in forest management. In contrast, areas where local populations have been excluded, including the highest conservation zones (national parks), are suffering from extensive clearing.

2 Communities can become effective agents of forest enterprise activities with time, patience, training, and effective monitoring. In the case of the MBR, the resources were available and the community was willing to undertake the enterprise activities. The government agreed to the concept and the donors and NGOs were willing to facilitate the process. However, bringing in a range of stakeholders to collaboratively work together, each with their own missions and agendas, takes time, patience, and transparent cooperation. In the MBR, progress has been encouraging, but it will require careful monitoring and timely support for years to come.

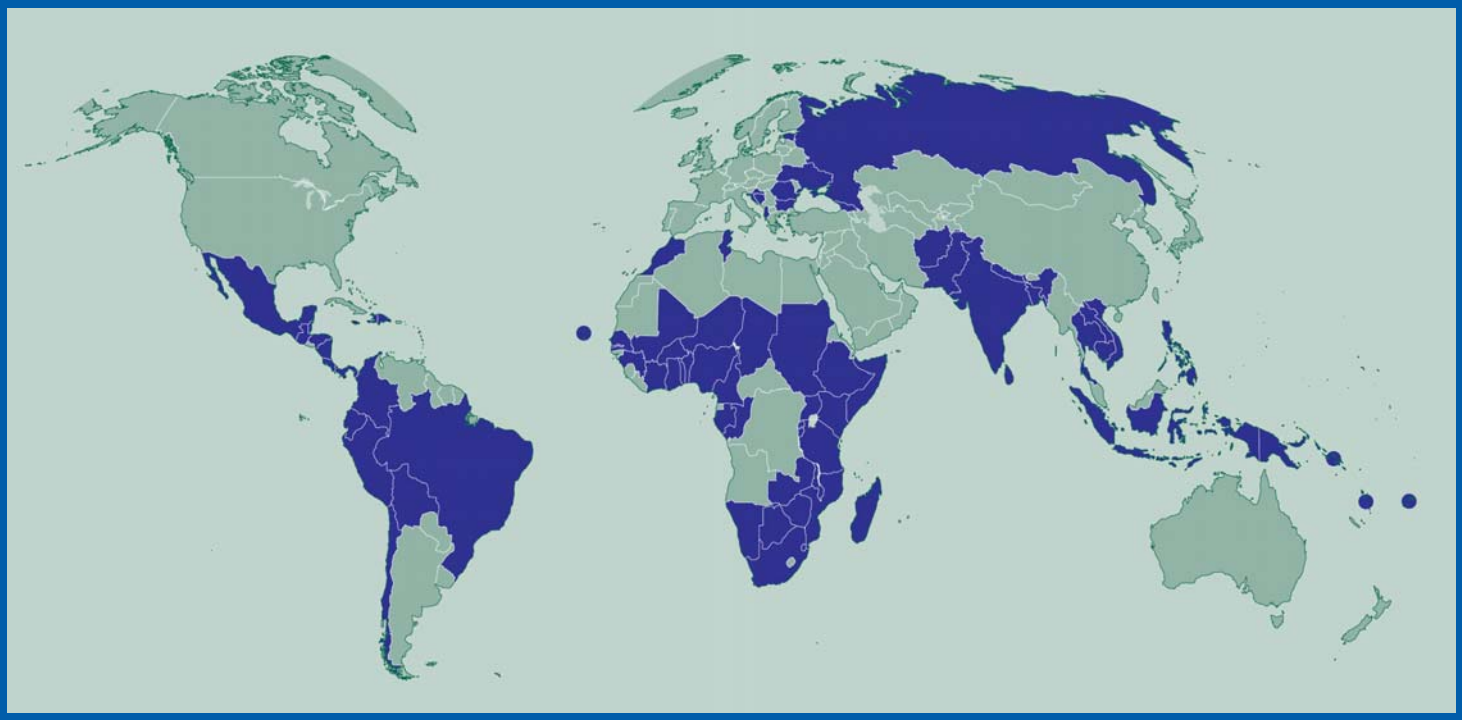
3 Traditional knowledge and skills are a precondition for the rapid adoption of forest enterprise activities. Relative to other natural forest management programs worldwide, the progress noted for community forestry in Guatemala has been exceptional. This is primarily because the focus communities already possessed experience and skills in the extraction and processing of forest resources. Conceptually, using the forest for resources other than subsistence household needs was already established in most of the communities. This allowed rapid progress once access was guaranteed and training initiated.

4 A mix of service providers and facilitators for community forest management can provide a range of innovative ideas and concepts, but it can also lead to disagreements and disputes that can slow down the process down and negatively affect communities. Different conservation and development strategies are not always compatible. In the case of the MBR, while initially starting with the same agenda, some of the NGOs began to pull the process in different directions while CONAP was still developing and evolving its role. In effect, communities became the focus for competing forest management strategies, which sometimes left them confused about their engagements as well as prospects for the future.

5 High expectations and excessive demands can threaten the ultimate success of community forestry enterprises. In addition to the different strategies and competing interests mentioned in the preceding lesson, unrealistic demands by CONAP, FSC, and USAID impeded progress in some situations. The onerous management plan approval process (by CONAP), the environmental assessment demands (by USAID-although the mission has wisely combined this with the certification process), and the certification process itself are all examples where creating the conditions for sustainable forest management can lead to overkill. In a multi-year, long-term process, when activities are performing well 80-90 percent or the time, trying to attain that additional 10-20 percent as quickly as possible can lead to the collapse of the process.

6 Forestry enterprises support community cohesion and ultimately the maintenance of peace and stability. Decades of violence, civil war, and human rights abuses have left many in Guatemala suspicious of the motives of outsiders and at times, even of others within their own communities. National rehabilitation, reconciliation, and the elimination of corruption do not take place overnight. Residents of the Peten know this well. The community forestry concessions have helped bring residents together around a local enterprise theme, which can promote civil society development as well as the ability to connect with outside agencies and institutions. These links in turn facilitate information exchange, technology transfers, market access, and revenue generation.

USAID Forestry Experience



USAID Forestry Program

25 Years of Progress Toward
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