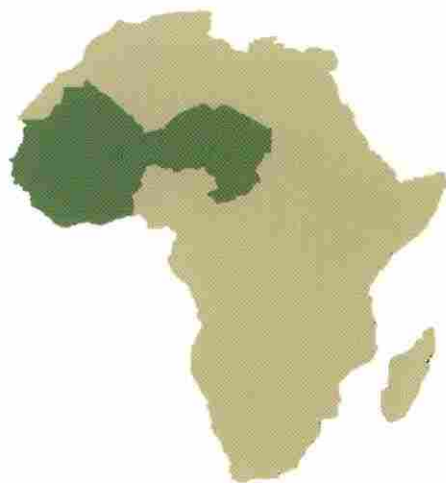


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INVESTING IN TOMORROW'S FORESTS:

Toward an
Action Agenda
for Revitalizing
Forestry in
West Africa

*Tomorrow's forests—dynamic, economic,
integrated, diverse and shared—are
emerging across the West African landscape
today. Investing in tomorrow's forests offers
a pathway to alleviating poverty, improving
governance, empowering local communities,
securing sustainable development and
enhancing the well-being of Africa's people.*



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WHAT ARE TOMORROW'S FORESTS?

Today's forests are evolving toward the dynamic, economic, integrated, diverse and shared forests of tomorrow. To a large extent, tomorrow's forests will be those of private and community initiative.

Tomorrow's forests will be everywhere—in farmer's fields, in fallows, on roadsides, in compounds, and on hillsides and degraded lands. They are dynamic forests that target opportunities. They complement other rural production systems to intensify and diversify production in an integrated manner. They are development forests that provide economic opportunities for communities and individuals, help to alleviate poverty, and respond to market signals. They are forests in which the Forest Service assumes a new role as a partner to communities and resource users. They are shared forests where stakeholders ranging from elected officials to NGOs to private traders come together to negotiate agreements, and where the state and community co-manage resources and share benefits. They are decentralized forests where local men and women are empowered to make decisions and investments. They are democratic forests where decision-making is transparent, accountable and participatory.

However, tomorrow's forests will not appear and provide their promise without investment. Without the investment of time, skills, energy, commitment, political will, and money, tomorrow's forests will not thrive. With investment however, tomorrow's forests promise to prosper and make important contributions to rural livelihoods. Tomorrow's forests will provide environmental goods and services, will offer economic opportunities and will contribute to good governance as well.

Together we must invest in tomorrow's forests.

This report offers a description of forests past and future. It analyzes what types of investments should be made in tomorrow's forests, who should be making them, and how. The report concludes with the benefits of investing in tomorrow's forests.

*Together we must
invest in
tomorrow's
forests.*

FORESTS PAST AND FUTURE

Tomorrow's forests stand in contrast to the forests of yesterday. Yesterday's forests were often centralized, dominated by the state through regulations and a para-military Forest Service. To some extent, they were forests of protection and exclusion with vast areas protected from use. Local people and local use were thought to contribute to the degradation and destruction of forests. Authoritarian approaches, adopted to protect the forest from people, were enforced by Forest Service agents acting as forest guards or policemen. Interventions in the forestry sector tended to focus on increasing wood production and/or reversing "desertification" using technical solutions prescribed by government experts. Communities' resource needs, use, and management of forests—like the dynamic aspects of the West African ecosystem—were neither well understood nor appreciated. Yesterday's forests were considered to be forests of degradation and collapse, forests in perpetual crisis.

Tomorrow's forests build on changes that are increasingly evident in today's forests and stand in contrast to yesterday's.

Over time, this understanding of the forest has been challenged, and many if not all of these misconceptions have been changed. Tomorrow's forests build on changes that are increasingly evident in today's forests and stand in contrast to yesterday's.

In the mid-1970s, following the great Sahelian drought of 1969–1973, a series of analyses of the Sahelian environment were produced. These works greatly influenced perceptions of the Sahelian forest, as well as the investments of governments, donors, and NGOS in the forestry sector across West Africa.

One of the best known of these analyses was the seminal book, *The Other Energy Crisis: Fuelwood*. Published in 1975, the book described the firewood crisis as one that would make news for the rest of the century. It explained that population growth almost completely determines fuelwood consumption and that, as populations grew, forests were receding. As the "logical immediate response" to forest disappearance, planting trees in plantations, on farms, along roads, in shelterbelts, and on unused land, on a scale "more massive than most bureaucrats have ever even contemplated, much less planned for" was advocated. The alternative, according to this view was "suicidal deforestation" and a sys-

tem collapse with "lethal vengeance." The "crisis" is one example of a broader pattern of cries of alarm about desertification, "the advancing Sahara", desiccation/*dessechement*, overgrazing, land degradation, and the "mining" of woodlands that stretches back to the 1920s.

More than 25 years later, in spite of continuing development challenges, no system collapse has occurred, and the firewood crisis has faded from the news. Even more surprising, the recommended actions to avert disaster do not appear to have been a mitigating factor. Most of the large-scale tree plantings fell far short of producing the volume of wood that planners anticipated. Many of those that did survive are relics that do not contribute substantially to the wood supply (although there are exceptions).

Given that the system did not collapse and that the massive response spawned by the initial alarms played only a marginal role raises an obvious question: What did happen? What were the working hypotheses that shaped the initial responses and how have they changed? Moreover, what lessons from the last thirty years will help West Africans deal with the ever-present challenge of a finite resource base and growing population, as well as take advantage of the development opportunities that the sector offers?

Framed by a crisis mentality, spurred by the specter of a treeless desolate Sahel, and inspired by a singular faith in a technical solution, the hypotheses of the 1970s led to the use of large-scale, government-led tree planting projects that would re-green the Sahel and physically halt the march of the desert.

While these approaches eventually proved not to be cost effective and did not resolve the underlying problems or fully achieve the desired results, the drought set in motion processes that led to new approaches and more effective investment strategies. First, the crisis mentality helped to soften the rigid nature of the Forestry Services in a number of countries and led to people being given the space to try new approaches, such as community and private woodlots. Second, the explosion of experiments in the late 1970s and early 1980s, along with the political changes of the early 1990s, laid the foundation for new approaches, a range of more effective forest management techniques, and more comprehensive programs to support the forestry sector.



Advancing Sahara:
Stamp from Upper
Volta circa 1980.

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Although some areas face degradation as a real and serious problem, in numerous promising cases, forests are being managed more effectively and more profitably than they were 30 years ago.

Among the approaches that emerged from this period, one of the most important was a shift toward seeing forest management as an important source of revenue-generating activities instead of only as a response to the “desertification” crisis. This was linked to the acceptance of the idea that conservation could not be built on the backs of poor people; rather, it must be largely in their economic self-interest to succeed. A second key shift increased the attention given to the role of trees in farming systems and to promoting agroforestry and related soil and water conservation practices that directly and favorably impact natural regeneration in and around cultivated fields. Another critical shift was towards natural forest management versus plantations of fast growing exotics. Likewise, the importance of women’s participation in natural resource management was recognized, as was the viability of participatory decentralized co-management for improved forests.

As the number of people encouraging private, revenue-generating forest management grew, they continually encountered policies, codes, and laws that centralized forest management authorities and prescribed policing roles. The 1990s saw battles of competing approaches, but the evidence of positive impacts on the ground was on the side of decentralized management. By the mid-1990s many countries had reformed their policies, codes, laws, and institutions and moved toward partnerships that encouraged sustained-yield management, revenue generation, and local empowerment.

The assumption that Africa is awash in a sea of rampant degradation and the perception of environmental crisis has often driven investments. Yet, the catastrophe predicted in the 1970s has not materialized. Important experience has been gained and lessons learned in the past 25 years about economic and governance rationales for investing in the sector. Although some areas face degradation as a real and serious problem, in numerous promising cases, forests are being managed more effectively and more profitably than they were 30 years ago. The challenge to investors will be to support these promising cases and promote new approaches, thereby allowing the forestry sector to achieve its potential in spreading environmental, economic, and governance benefits across the African landscape.

ASSESSING CHANGE AND FORMULATING BETTER STRATEGIES

CILSS, with support from USAID, has undertaken an assessment of the state of the art of the forestry sector in West Africa. This included a survey sent to more than 100 resource people, joint field visits to eight countries (Mali, Niger, Burkina Faso, Senegal, The Gambia, Guinea, Benin and Ghana), bibliographic research, and a workshop.

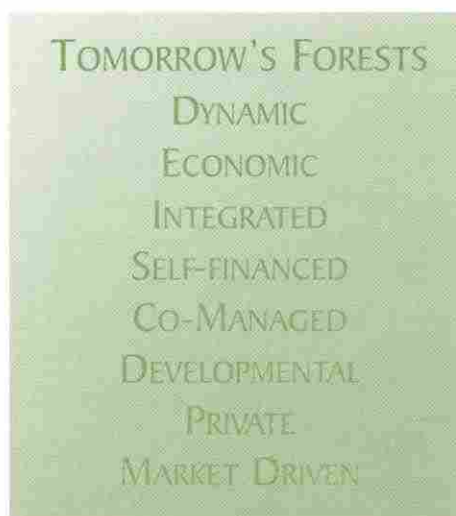
The survey posed five open-ended questions that focused on the past hypotheses in the forestry sector, how hypotheses influenced investment strategies, the impact of investments in the forestry sector, and the main issues or concerns influencing investment in the forestry sector today. The resource people surveyed offered in-depth information and assessments of their experiences. After analyzing the responses from the questionnaire, three teams visited field sites where they met with key informants from host country governments, NGOs, donors, and local communities.

The findings of the survey, field visits and the bibliographic research served as the basis of discussion at the workshop. The workshop, held in Ouagadougou from July 16–19, 2002, brought together 50 resource people from across West Africa to review the results of the previous steps in this process, discuss trends and results from forest management efforts over the past two decades, and develop concrete recommendations on how to make future forestry investments more relevant and effective. A key theme that emerged from the workshop was “Investing in Tomorrow’s Forests.”

A full technical report of the review process and workshop can be obtained from CILSS (www.cilssnet.org) and USAID and found on the FRAME Web site (www.frameweb.org). This document conveys key insights and findings derived from the survey responses, field visits, and workshop.

TOMORROW'S FORESTS—EMERGING TODAY

Findings from country-level field visits and workshop discussions confirmed that many examples of tomorrow's forests are emerging across the West African landscape. Workshop participants emphasized the importance of drawing upon the lessons learned from these examples. The vignettes below offer glimpses of the various forms of tomorrow's forests. Each is unique. Some demonstrate a single characteristic of tomorrow's forest, others share many. Together they indicate promising potential for the future.



Tomorrow's forest: private, dynamic, innovative, self-financed, market driven

THE CASE OF TOGO'S TREES:

Market Opportunities Bring Forest Products and Environmental Goods to the Yamé Valley, Mali

In the early 1980s, while working at a forest nursery in Fatoma financed by USAID's Village Reforestation Project, Indielou Togo was intrigued with the way the eucalyptus seedlings were growing: fast, straight, and tall. When he retired he decided to take some seedlings from the nursery and plant them on a small parcel of land that he had borrowed in the Yamé Valley 10 kilometers outside of the bustling city of Mopti. When he got the land it was not intensively farmed—it was viewed as marginal land used occasionally by herders and collectors of bush products. The eucalyptus flourished. Within several years he had poles to sell. When he cut the trees, there was vigorous regeneration. He experimented with different ways of managing the regeneration, gradually increasing the size of his plantations. Always a keen observer, he continued to work with this crop that had become an important source of revenue.

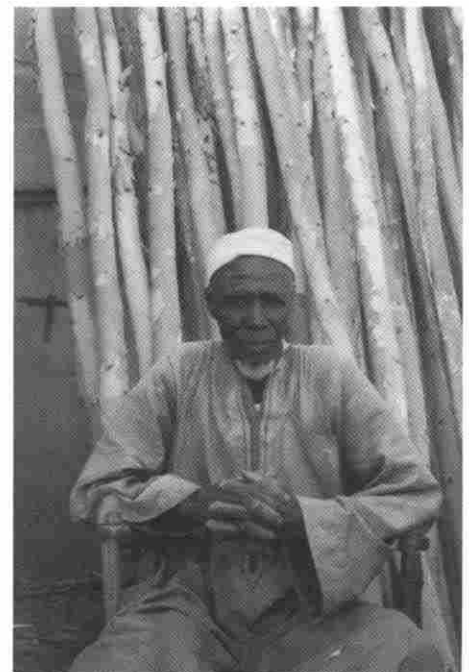
Togo also quickly learned how to produce his own eucalyptus seedlings, something that was seen by some as beyond the capabilities of untrained farmers. Several years after he got his first seedlings, he was able to return the favor, providing the Forest Service with plants when their production failed.

Neighboring farmers noticed Togo's work. They approached him for both seedlings and advice. Gradually, the Yamé Valley began to fill with eucalyptus. The farmers knew that this tree could make them money. They knew

that it came from somewhere far away. They didn't know where, and didn't care. For them, it was "Togo's tree." In the meantime, Togo is not resting on his laurels. He is continuing to experiment: intercropping pigeon peas and tomatoes (in higher rainfall years) between his eucalyptus, experimenting with baobabs and guavas ... continuing to think about new opportunities.

By 2002, what started a small experiment has spread some 25 kilometers down the Yamé, and some nine or ten villages are now growing, tending, harvesting, and making money from eucalyptus. Togo is established as an important pole merchant in Sevare, the bustling market suburb of Mopti. He also sells poles in Bankass and Koro, 120 kilometers away. Most poles sell for 1000–1500 CFA; the largest ones fetch as much as 3000 CFA.

The physical accomplishments of the Village Reforestation Project are a distant memory. One of its most important outcomes, unanticipated by project designers and implementers alike, is what is happening in the Yamé Valley. Malian farmers—led by an innovator with an infectious sense of curiosity—have been experimenting with an exotic species, mastered its production and regeneration techniques, linked



Indielou Togo: Farmer innovator with the fruits of his labor

their production to a strong and growing market, expanded the area under cultivation, and are reaping solid economic benefits.¹

Tomorrow's forest—private, dynamic, innovative, self-financed, market-driven, inte-

grated into the rural production system, producing both forest products and environmental services—is alive and well in the Yamé Valley.

Indiélou Togo and his neighbors are not alone their innovative and successful experimentations. Hundreds of kilometers from the Yamé Valley, farmers of the Yatenga region of Burkina Faso are also actively reclaiming the productivity of their land. Like their Malian neighbors, they, too, are building upon lessons learned from past projects and interventions. In both cases, projects initially judged to have had a limited impact have proven to have planted important seeds. These seeds, nurtured by farmer innovation, have produced dramatic changes in the landscape.

¹ As a followup to the West Africa forestry study, plans are being developed to research this and several other cases in greater depth looking at both the biophysical and socio-economic dimensions. This will be linked to the work that Chris Reij et.al. reported on in *Farmer Innovation in Africa: A Source of Inspiration for Agricultural Development*.

Tomorrow's forest: co-managed, self-financed, integrated, private

REHABILITATION OF FARMLAND AND INTEGRATED MANAGEMENT OF TREES IN FARMING SYSTEMS:

The case of innovative farmers in Yatenga,
Burkina Faso

After facing years of increasing threats from mismanagement, deforestation, drought, desertification, loss of pasture, soil erosion, declining crop yields, and increasing food shortages, hundreds of farmers in the Yatenga region of Burkina Faso and elsewhere have successfully reclaimed and restored the productivity of their land and the surrounding natural resources.²

In parallel with the evolution of community-based and participatory approaches for the improved management of classified and natural forests in Burkina Faso, there has been a remarkable change of behaviors among farmers and other rural producers leading to a transformation of landscapes in cultivated areas.

These changes have occurred through a combination of actions, which collectively point toward a promising way forward for investing in tomorrow's forest. The results visible today did not arise out of a vacuum. They are, in part, the legacy of a series of projects and interventions, many of which ended some time ago with the perception that they had not had much impact. However, many of these investments in training, study tours, extension,

and adaptive and participatory research, as well as tree planting, village woodlots, agroforestry, and in improved soil and water conservation have taken root and gradually contributed to improved natural resource management (NRM).

Pilot projects and extension efforts have stimulated innovation, adaptation and appropriation of improved local-level NRM practices. Farmers have shifted from being "subjects" or "ignorant peasants" obliged to plant trees to empowered citizens enabled to select from a menu of proven NRM practices.

Farmers have actively protected natural regeneration of shrubs, trees, and other woody vegetation, both in cultivated fields and in surrounding bushlands, not only because they recognize the environmental and eco-



Namwaya Sawadogo displays his rehabilitated lands (Yatenga, Burkina Faso)

² *Farmer Innovation in Africa: A Source of Inspiration for Agricultural Development*. Chris Reij and Ann Waters-Bayer, ed. Earthscan, London, 2001.

Armed with the knowledge of more effective techniques and a more open and supportive enabling environment, farmers have chosen to experiment and invest in land rehabilitation on a significant scale.

conomic benefits, but because they have been empowered through a variety of favorable changes in the enabling conditions for local management of trees and forests. Armed with the knowledge of more effective techniques and a more open and supportive enabling environment, farmers have chosen to experiment and invest in land rehabilitation on a significant scale; many farmers have reclaimed 10–15 hectares in areas where average farm size is about 4 hectares.

Rural producers have benefited in economic terms, not only from the sale of poles and firewood (some \$30–\$60/year per household), but, more significantly, in many areas from the production and sale of non-timber forest products (fodder, medicinal products, edible leaves, fruits, nuts, gums, honey, etc.). For example, some 200 tended baobab trees in a field now bring in more than \$200 per year to a household from the sale of highly sought after and nutritious edible leaves. Particularly innovative and resourceful farmers have shifted from being

part-time farmers and traders (to compensate for declining yields, periodic drought) to full-time farmers with a relatively comfortable income. The total cash income of one farmer amounts to about \$800 per year—several times the average per capita GDP—from a combination of cereal production, livestock, and the sale of poles, tree seedlings, medicinal plants, and other forest products.

Not only are people's livelihoods improving, but an unexpected recovery of the tree and forest cover has occurred in some areas as the density of farm trees in fields, boundary plantings, woodlots, and rehabilitated "forests" have increased. Furthermore, biodiversity has been restored in many areas, with both environmental and economic benefits: Wildlife is returning as a renewable resource, traditional medicinal plants are once again accessible, less time and labor is spent collecting fuelwood, and water supplies are better protected.

Farmers in Benin are also building upon the legacy of past reforestation efforts and responding to strong economic incentives for planting trees.

Tomorrow's forest: private initiative, poverty alleviation

THE CASE OF PRIVATE WOOD PRODUCTION, BENIN

Between 1980 and 1997, Benin's forest cover declined from 7.8 million to 5 million hectares, while from 1992 to 1997, demand for woodfuels increased from 5 to 6 million m³. Large blocks of relatively undisturbed natural forest are shrinking, despite the State's efforts to classify and reserve 2.7 million ha, nearly 20 percent of Benin's area, in classified forests, reserves, reforestation areas, and national parks. At the same time, increasing urban populations and consumers, who continue to rely on woodfuels and are shifting to greater reliance on charcoal, create steadily increasing demands for forest products. A catastrophic collapse in supplies and a sharp rise in wood-fuel prices have apparently been averted or forestalled by a combination of factors, including more systematic recovery and sale of wood from land cleared for agriculture, more efficient use (improved stoves), more efficient production of charcoal (improved techniques), more careful fuelwood management, and declining per capita use (preparing fewer meals or meals that require less cooking fuel, as a response to reduced supplies) and the shift from woodfuels to substitutes, such as bottled gas.

A survey of the landscape of Benin, particularly in the southern region and around major urban centers, reveals that another major factor has offset the area's reduction in remaining natural forest and corresponding decline in wood production—the emergence of new forests and plantations in cut-over croplands.

As the "wave" of tree cutting driven by fuel-wood harvesting and charcoal production has extended out to areas farther and farther from the main centers of consumption, wood supplies have been augmented by the collection of wood from areas cleared for farming and, most significantly, by planting, regenerating, and harvesting wood in and around farms. As the frontier becomes more distant, it has become economical to plant. These farm trees, woodlots, and private plantations are located in relatively close proximity to the major urban centers and close to existing road networks and major transport corridors. These plantations have arisen as a legacy of past reforestation efforts, including campaigns to raise awareness of the importance of trees, and past funding of tree nurseries and training of nursery workers in improved techniques of seedling production. After the projects



Some forest entrepreneurs have decided that growing trees generates a better return than crops.



Informal woodworking enterprises are commonplace in southern Benin. Official statistics in Benin suggest that the forestry sector accounts for only 3% of GDP, but these statistics most likely do not fully capture the thousands of small producers, entrepreneurs, and woodworkers that earn their living from the production, processing and sale of forest products.)

ended, many nursery workers established themselves as private producers and found a market for seedlings. The demand for seedlings had been developed both by the public awareness campaigns and, more importantly, by the experience and demonstration effect of farmer innovators who invested in tree planting and marketing of forest products produced as part of their farming system. Word has spread fairly quickly that there is money to be made producing seedlings; growing trees; and selling poles, timber, and other forest products. In southern Benin, with 1200-1300 mm of rainfall and a reliable supply of seedlings of relatively fast-growing species like Teak, Eucalyptus, Cassia, *Acacia auriculiformis*, *Leuceana* and a variety of highly valued fruit trees, local entrepreneurs are making a living as "forester entrepreneurs" alongside their traditional farming activities. Signs advertising the sale of seedlings are increasingly common. Farmers no longer rely on the Forest Service or externally funded projects to produce seedlings—they are doing it themselves, and members of their household are making a good living in the process. A typical household operation produces some 20,000 seedlings each year and generates 400,000 CFA in income (\$660).

Fields are being planted with a crop of trees and harvested within a few years to produce fuelwood for both local consumption and

nearby markets. Many farmers have their sights on greater returns from poles and timber. One hectare of Teak can produce a crop of poles worth at least 1,500,000 CFA (\$2,500) in five years. While the trees are growing, incomes are supplemented with the sale of fodder, honey and a variety of other products from woodlots and plantations.

To an increasing degree, rural producers also recognize that incomes can be further augmented by investing in the development of small forest-based enterprises to transform, process, and increase the value of locally produced forest products. According to recent surveys, some 33 percent of the population of Benin live with incomes below the poverty level of 56,600 CFA/year (less than \$100 /year). Many have already taken the initiative to set up a small operation to produce doors, windows, and other construction and household furnishings. For most, however, commercial credit is still not accessible, and technical training and assistance with enterprise development are not readily available. Building on the abundant examples of these local initiatives and investing in reforestation, plantation management, and the development of forest-based industries and small-scale enterprises, such as sawmills, lumber yards, furniture and crafts production as well as the marketing of a range of forest products, offers a significant means to increase employment and household incomes.

Tomorrow's forests are being actively planted and tended in Benin today. They have the potential to make an even greater contribution to the national economy, if and as further investment is mobilized.

While these stories of successful innovation are inspiring, these visions of tomorrow's forests are not all accidental or unintended byproducts of past investments. Positive experiences have also occurred as a direct result of project interventions. These examples from Niger and Senegal demonstrate the successes enjoyed by communities working with NGO partners. The first describes the simple, practical and effective Farmer Managed Natural Regeneration (FMNR) technique supported by the Maradi Integrated Development Project, which demonstrates the integrated aspect of tomorrow's forest in Niger. The second, from Senegal, describes a PAGERNA/GTZ intervention supporting the co-managed forest of tomorrow.

Tomorrow's forest: integrated and diverse

FARMER-MANAGED "DIRTY FIELDS" IN CENTRAL NIGER

An experiment has been taking place around Maradi in central Niger for the past 19 years. Quietly, the Sudan Interior Mission (SIM) has been encouraging farmers to allow bushes and shrubs to regenerate in their millet fields. The Maradi Integrated Development Project (MIDP) has worked with these farmers, experimenting with techniques to manage this natural regeneration in ways that will provide the farmers with firewood and building timber, contribute to land reclamation, positively impact crop yields and animal productivity, increase biodiversity and reduce dependence on pesticides, support rural livelihoods

and contribute to the local economy, and improve the overall quality of life in the project zone.³

For many generations, "good" farmers in Niger "cleaned" their fields by clearing virtually all the trees, shrubs and natural regeneration on fallowed land and by cutting back resprouting vegetation to reduce competition for light and moisture with planted crops.

Farmers had long recognized the benefits of partial shade cover and protection from dispersed "farm trees" in their fields, but when

³ For details see Tony Rinaudo, 1999. "Utilizing the Underground Forest: Farmer-Managed Natural Regeneration of Trees" in: Dov Pasternak and Arnold Schlissel (Eds). *Combating Desertification with Plants*. New York: Kluwer Academic/Plenum Publishers. p. 325-336



*Farmer-managed natural regeneration:
Farmer and his "dirty field" near Maradi, Niger*

FMNR is a simple, practical, and effective agroforestry practice. It requires no special tools, no nurseries, no vehicles, and no signboards or other development project paraphernalia.

lations increased and the area of fields expanded, fewer trees remained on the landscape—and farmers could look out over millet fields from horizon to horizon during the rainy season. However, erosion intensified, dust storms became more severe, fuelwood collection became more onerous and time-consuming, livestock fodder was harder to obtain, and wells were drying up more frequently. Further, crop failures and food insecurity were more commonplace.

With facilitation and support from the SIM team and its resident advisors, farmers were encouraged to consider how they might change their land use practices to secure their millet harvest, keep the sand from blowing into their food, and relieve their wives from walking long distances to collect wood.

SIM encouraged local Forest Service officials to agree with the communities to not fine farmers who elected to not cut back coppice

their efforts to manage these trees led to confrontations and fines with local foresters, they often decided it was better to avoid problems by reducing or eliminating the tree cover in their fields. In time, as popu-

sprouts, but who wanted to trim and manage the regeneration to optimize both crop and wood production. Slowly, with the support and guidance of SIM advisors, farmers developed a "new way" of land clearing and field cultivation that deliberately avoided cutting all woody regrowth and that selectively retained and pruned trees and shrubs in their fields to provide protection from wind and water erosion, improved soil fertility, increased supplies of forest products in close proximity, and provided other environmental services and economic benefits. As a result, "dirty" fields took over where "clean" fields had dominated, and farm fields now typically have a cover of 50–100 stems/hectare of small shrubs and widely spaced larger trees.

This practice, dubbed farmer-managed natural regeneration (FMNR),⁴ has spread across the semi-arid landscape around Maradi—thousands of farmers in that region have adopted the practice. A 1999 program evaluation found that 88 percent of respondents in target villages and non-project villages practiced FMNR to some extent in their fields, leading to an increase of some 1.25 million trees per year in the project zone.

FMNR is a simple, practical, and effective agroforestry practice. It requires no special tools, no nurseries, no vehicles, and no signboards or other development project paraphernalia. Easily understood basic techniques are based in large measure on indigenous knowledge and observation.

⁴ See George Taylor and Barry Rands. "Trees and Forests in the Management of Rural Areas in the West African Sahel: Farmer Managed Natural Regeneration." Paper prepared for the 10th World Forestry Congress, Paris June, 1991. In: *Revue Forestière Française 10e Congrès Forestier Mondial Paris-1991*. Actes. RFF Hors Serie. Edited version reprinted in *Desertification Control Bulletin* (United Nations Environment Programme, Nairobi) No.21, 1992, p.49-51.

Mastering FMNR techniques requires intuitive and practical skills, skills that can be learned by experience or taught through traditional channels of information exchange from farmer to farmer. Among the reasons why FMNR has blossomed: Getting started is simple. Getting started involves an investment of labor, but no cash. FMNR fits easily into the existing agricultural production system. It is done by individual farmers and, therefore, requires a minimum of community organization. Perhaps most importantly, FMNR provides benefits in the short-term (the first few years) as well as over the medium and longer term. One-year-old poles grown through FMNR can bring up to 30 CFA, while five-year-old poles can fetch from 500–1,000 CFA, depending on the species. Because FMNR promotes multiple-stem management (with five stems considered optimum in many situations), the cycle of harvesting wood and related products continues year after year. Of those surveyed during the 1999 evaluation, 76 percent used wood from their own fields for cooking fuel, thereby eliminating a daily cost of

approximately 200 CFA for purchased firewood. Of the respondents, 48 percent sold wood from their farms for cash and received an average of 17,465 CFA per person in 1998. This income represents approximately two months of food for a family of ten people.⁵

The SIM-supported work on FMNR has not received the high-profile national or international attention of the multimillion-dollar *Projet Keita* 80 miles to the north or the Majjia Valley windbreaks 20 miles to the west, but, for the farmers around Maradi, FMNR is just as important, arguably more so. The same is true for many of their counterparts across the Sahel: farmers struggling to manage the natural resources at their disposal and make ends meet.

Tomorrow's agroforest—private, dynamic, innovative, integrated into the rural production system, producing forest products, incomes, and environmental services, is alive and well on the FMNR fields around Maradi.⁶

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5 MIDP Program Evaluation, 1999.

6 Readers interested in learning more about this innovative and important programme and/or in arranging farmer-to-farmer visits should contact Peter Cunningham at SIM in Maradi (BP 121, Maradi, Republic of Niger Tel: 227-410248. Email: MIDP@maradi.sim.ne or pscunnin@maradi.sim.ne.) A *Technical Manual* prepared by the Maradi Integrated Development Project in 2001, including a section and some photographs on FMNR, is also available.

Tomorrow's forest: co-managed, decentralized, local, empowered

COMMUNITY FOREST OF NDOURE— NDOURE, SENEGAL

Community members note that the rule of law works ... An open and transparent process gives them security over the products of good stewardship.

Six years ago the village of Ndoure-Ndoure put 8 hectares of degraded forest and pasture land under protection (*mise en défense*). With support from the PAGERNA/GTZ Program (Projet Autopromotion et Gestion des Ressources Naturelles au Sine Saloum) based in Kaolack, village members developed internal rules (bylaws) and elected a governing board. The bylaws were registered with the Sous-Préfet. The area was then expanded to now 15 hectares of mixed forest.

The benefits of the forest include pasture and forage, windbreaking effects and micro-climate improvements, a convenient source of fuelwood, wild fruit, and honey. The forest includes species of trees, shrubs, and birds that people had thought had disappeared. Apiculture—now being practiced with improved hives—is a new economic activity provided by the forest.

The community realizes that the above benefits are attributable to people respecting the management plan. For example, the plan prescribes the dates that certain non-wood products can be harvested and it precludes, for the moment, the cutting of living wood. Under the bylaws, fines are levied for people transgressing the management plan.

The village chief's wife was among the first to be fined: she paid 2,000 CFA for cutting wood. Influential people from outside the village came with a cart to harvest wood and were fined. When they took the case to the

Sous-Préfet, he upheld the fine because the community had an approved management plan with bylaws.

Community members note that the rule of law works in the Ndoure-Ndoure forest. An open and transparent process gives them security over the products of good stewardship. Fines from the process now go into a treasury instead of people's pockets. The role of forestry agents has changed, and they now give good advice. The members of Ndoure-Ndoure think that if the PAGERNA program were to end tomorrow, that they could continue to manage the forest and expand economic activities.

In addition to helping them get control over a resource that has affected their livelihoods, people of Ndoure-Ndoure feel that the process supported by PAGERNA has strengthened them as a community. They feel better organized and more confident of taking on challenges locally instead of having to depend upon others. The open and transparent manner of developing rules led to a clearer understanding of the rights and responsibilities of everyone as well as to the development of more confidence. This has strengthened social cohesion and reduced conflict. Since the rules are clearer and respected, people in positions of authority are held accountable (the Forestry Service can no longer get away with illegal fines and elected local government officials can not as easily use their positions to profit from illegal use of

forest products). And, the people of Ndoure-Ndoure feel much more comfortable in settling problems locally rather than taking them to a government body.

Interestingly, communities working with the PAGERNA program used the Decentralization Law—not the Forestry Code—to develop the legally binding bylaws. This is a strategy

used in several countries where there is a lack of coherence and/or compatibility between codes across sectors. Communities use the code or policy that gives them the latitude they need to gain a measure of control over the resource. The positive results produced by local control in examples like these build the case for supporting local control and responsibility.

NGOs have played an important role in supporting communities' participation in forest management. NGOs however have not been alone. Governments across West Africa have played a vital role in supporting these advances. The example of the Forest Service's role in supporting the "dirty fields"/FMNR approach in Niger is testament to this. The following two examples from Burkina Faso and The Gambia further illustrate the importance of positive policy changes in defining tomorrow's forest.

Tomorrow's forest: co-managed, self-financed, integrated, private, economic

TRANSFORMATION IN FOREST MANAGEMENT PRACTICES:

The case of Burkina Faso

Although external project assistance was phased out ... these dynamic groups of locally elected members continue to function and to apply the principles of sustained yield forest management.

Over the past 20 years, Burkina Faso as well as most other West African countries included in this Forestry Review, have taken a series of deliberate steps to improve the management of the country's forest resources, and to counter the widely acknowledged threats to the forests. Natural forest covers about one half of the area of Burkina Faso, and there are 880,000 hectares of classified forests. In the 1970-90's, Burkina Faso was losing about 100,000 hectares of forest each year, primarily as a result of conversion of forests to cropland. Natural regeneration of trees and forests was reduced by the effects of uncontrolled bush fires, grazing and firewood cutting. In recent years, the rate of forest loss appears to have been reduced in part by the cumulative effect of the past 20 years of forestry sector investments. More importantly, the contributions of trees and forests to the alleviation of poverty and to improved well-being of the people dependent on these resources has been safe-guarded and even increased.⁷

In Burkina Faso, a new forest policy was adopted in 1981 to promote a shift from the simple protection of forests to their improved management. Guidelines were developed for the preparation of forest management plans. While the initial sets of management plans proved to be cumbersome

and difficult to implement, the forest management planning process has been steadily simplified and improved through experience.

From 1986 to 1990, a pioneering project in natural forest management was funded by FAO/UNDP, to develop and implement a participatory approach to forest management in the Nazinon forest. As an extension of the pilot efforts in the Nazinon forest, the Forest Service has developed a plan to gradually bring some 200,000 hectares under management in south-central Burkina Faso, including a 22,000 hectare block in the vicinity of Bougnounou.

Some 30 *groupements de gestion forestieres* (GGF) or forest management groups have been organized in the Bougnounou area, and currently operate with annual receipts from the sale of firewood amounting to about 10 million CFA (\$16,500). Although external project assistance was phased out in 1995, these dynamic groups of locally elected members continue to function and to apply the principles of sustained yield forest management. Access to the community's forest is controlled in designated areas, which have been divided into cutting blocks that are harvested on a 15 year rotation, through selective cutting of roughly half of the standing biomass. Local woodcutters are trained and licensed, and authorized to sell

⁷ See *Programme National d'Amenagement des Forets*, Ministère de l'Environnement et de l'Eau, Ouagadougou, Mars 1996.

wood to merchants who receive a transport permit issued by the local group at the community level. Checkpoints staffed by the Forest Service and contract employees of the woodcutters association collect fees as the merchants leave the area and transport the wood to urban markets.

When the program began in the late 1980s, woodcutters were paid about \$1 per stere; several years ago, they successfully negotiated a price increase, and now receive about \$2 per stere. The average association member is able to double their annual income (adding about \$85/year) through their participation in the forest management activities. The reformed fiscal policies provide for the following distribution of funds: 50% to the producer; 27% to the locally administered forest management fund, 14% to the national Treasury, and 9% to the association's development fund.

The new community-based forest management system has brought real environmental, economic and governance benefits to the participating men and women. Members enjoy economic benefits through their participation in forest-based enterprises such as woodcutting, bee-keeping, livestock raising and the processing of non-timber products such as shea nut. Environmental degradation has been reduced through enhanced protection, regeneration and controlled harvesting.



The development of community-based forest management in Burkina Faso and elsewhere has provided an opportunity for women to participate in decision-making and negotiation over the use and improved management of trees and forests.

In terms of improved governance, communities have benefited from improved collaboration with the Forest Service, as complementary roles have been clarified in the interest of more effective management and sustainable use of the forests. Improved transparency in issuance of permits, collection of taxes and fees, and deposit of forestry revenues into the national Treasury have also benefited local communities. Finally, increased accountability of funds and the establishment of association development funds have enabled funding of development activities based on local priorities.

The new community-based forest management system has brought real environmental, economic and governance benefits to the participating men and women.

Tomorrow's forest: partnership

FROM POLICEMAN TO PARTNER:

The Evolution of the Gambian Forestry Service

The new Forest Policy of 1995—in stark contrast to the 1977 Policy—called for involvement of local communities and the private sector in the management and development of forest resources.

According to the FAO, the total forest cover in the Gambia increased 1% between 1990 and 2000. This increase in forest cover is especially impressive because it occurred at a time of rapid population growth. This data would suggest that the changes in policy have had an important impact on the Gambian forests.

The ongoing transition of the West African Forestry Services from policemen to partner is one of the major changes begun over the last 15 years. This transition is well chronicled in a recent report by Mr. Jato S. Sillah, Director of The Gambian Forestry Department.⁸

Mr. Sillah noted that this change occurred after "it became clear that the government will never be in a position to protect and manage the country's forest resources *without the assistance and support of forest-adjacent communities.*" This echoes observations from the field visits and from participants at the Ouagadougou workshop.

The sentiment of sharing authority is in stark contrast to the centralized management approach that determined the previous relationship between West African governments and rural populations. This approach was a legacy of the colonial governments and based on the notion that the only the State had the means and expertise to ensure responsible management. In 1950 the colonial government in the Gambia set up a forestry service to protect forest parks. In

1952, the Provinces Lands Act "provided for exclusive access and user rights in the forest parks to the colonial government." Following the drought and the accelerated loss of forest lands, the Gambian government increased its control over forest resources. "Government ownership of *all* naturally grown trees became statutory law with the enactment of the forest legislation in 1977 and the Forestry Department was entrusted with the overall management responsibility." Under this legislation the primary functions of the Forestry Service became: Law enforcement; issuing and control of forest exploitation licenses; collection of royalties; conservation, protection, and development of forest parks (gazetted forests); and, continuation of plantation and woodlot establishment for the domestic supply of wood products (especially fuelwood) to reduce pressure on the natural forests.

However, the high rate of forest loss continued. Mr. Sillah noted that the centralized approach that was hardened in the 1977 legislation produced an unexpected outcome: "As a result of government interference in the traditional tenure systems, the local population that claimed traditional ownership of the forests on customary village lands developed a feeling of alienation and of being policed which finally resulted in their unwillingness to protect and manage what used to be 'their forests.' The forest destructive behavior was further enhanced by the restrictive Forest Regulations of 1978, by the lack

⁸ Sillah, J. 2002. "Forest and Tree Management in West Africa: Evolving Approaches and Future Prospects for The Gambia."

of public concern, and by illegal forest operations such as misuse of exploitation licenses and permits." As he further notes: "Although the Forestry Department was entrusted the mandate of forest protection, it was unable to accomplish the task due to the tense relationship with the population and also because of lack of human and material resources."

In what Mr. Sillah calls the second national forest policy, The Gambian administration, supported by GTZ, shifted toward working with local populations in forest management. The Gambian-German Forestry Project (GGFP), initiated in 1980, spawned many of the ideas that produced the "The Gambian Forest Management Concept" (GFMC)

which in turn led to the community management forest concept in 1991. The new Forest Policy of 1995—in stark contrast to the 1977 Policy—called for involvement of local communities and the private sector in the management and development of forest resources. This policy also links environmental stewardship to sustainable development and poverty alleviation. Although still in the early stages, a number of communities that have taken on the authority and responsibility of managing local forest resources. Among these are communities that have developed and implemented management plans that have not only reduced or reversed degradation, but have also increased revenues flowing to the community from a variety of revenue-generating activities.

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and implemented
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An additional characteristic of tomorrow's forest is that it is integrated. The final examples from Guinea illustrate that tomorrow's forest is about more than just trees. Tomorrow's forest also provides important environmental services and governance benefits beyond the forest boundaries.

Tomorrow's forest: trees outside and benefits beyond the classified forest

THE CASE OF KANDEYA COMMUNITY FOREST, GUINEA

With the concrete steps being taken in Guinea to devolve management authority (and responsibility) to local communities, peoples' perceptions about the benefits from forestlands are changing.

Kandéya is a village that borders the Souti-Yanfou classified forest in the Fouta-Djallon of Guinea. The village is one of thirty-three villages that make up the "Groupement" that will co-manage the Souti-Yanfou forest with the state.

Inspired by practices of the first phase of the management plan for Souti-Yanfou and the example of another village, the village of Kandéya decided to form its own community forest. In 1999 the community signed and officially registered a 99-year contract with the proprietor. The original size of the forest was four hectares, it has since increased twice and is now 22.5 hectares. The community, with the assistance of a Guinean NGO, conducted an inventory. The local Forestry Agent catalyzed the process by facilitating the development of the forest and providing technical assistance as required. The development of a management plan is the next step.

The objectives of the community in forming the community forest include protecting the streambed, microclimate improvement for livestock, commercial wood harvesting, apiculture, wildlife management, improved bamboo harvesting, and pharmacopoeia.

Several capacity-building actions accompanied the creation of the community forest. The USAID-supported Natural Resources

Management Program (NRMP) provides adult literacy and numeracy training. In addition to teaching reading, writing and numeracy skills, the course also taught simple accounting. The reasons that people gave for taking the course include being able to better manage their own affairs and to deal with written agreements. The NRMP provided training to the Bee Keepers Cooperative on making improved hives. The Cooperative has bylaws and has developed a business plan to repay the loans.

With the concrete steps being taken in Guinea to devolve management authority (and responsibility) to local communities, peoples' perceptions about the benefits from forestlands are changing. Prior to these steps, people saw that the only way to secure rights to the forestland was to convert it to agricultural use. Now that they see that user rights are being transferred—as well as seeing what communities are doing with forestlands, community members are taking a second look at forest resources as a way to increase and diversify revenues.

The future of forestry in Guinea (as well as across much of West Africa) may very well lie as much in the management of community forests such as that of Kandéya as in the management of large classified forests like Souti-Yanfou.

Tomorrow's forest: providing environmental service benefits beyond the forest

THE CASE OF YEMOUNA—"NO WATER" VILLAGE, GUINEA

Yemouna is a village within the Souti Yanfou national forest in Guinea. The name of yemana means "no water" in the local language. According to the inhabitants, Yemouna did not have potable drinking water for 25 years. A natural water source existed in the village, but the water ran from the source directly into the ground and local communities were unable to capture it for use. During the dry season, villagers harvested water at the foot of the mountains by digging small reservoirs in the ground in the evenings and collecting the condensation that accumulated overnight.

In the late 1990s, USAID's Guinea Natural Resources Management project assisted the villagers in implementing a water source development and protection activity. A pipe was installed at the source to allow the community to collect water, and a committee was established to protect the water source.

The community became involved in both protecting and reforesting the catchment area above the water source. A village nursery was established to facilitate reforestation efforts, and guidelines were established to preserve the water source.

After gaining access to clean water, the community was motivated to become further involved in forest management activities. The community realized that if they were to increase their protection and reforestation activities they could further secure their

access to clean water. The community decided to expand their role and are now actively managing an adjacent national forest.

Now that the village has a safe source of drinking water, local villagers plan on renaming their village "Yenaa" meaning "there is water."



Potable drinking water is now plentiful in Yenaa



Community member from Yemouna/Yenaa enjoys potable drinking water

*Co-management
of natural forests
... [is] now being
actively promoted
across the region.*

In 1983, CILSS and the Club du Sahel sponsored an assessment of forest management programs in the Sahel. This baseline revealed that forestry sector investments had hardly moved beyond protection and tree planting. "The natural forests...are a great potential asset which up to present has been almost completely undeveloped. Developing the natural forests is the only feasible way of overcoming the growing energy problems of the region...Natural forests also provide a great range of non-wood products which are very important in the life of the people of the region. Governments and policy makers are now realizing the potential importance of natural forest management, in theory at least. The time has now come to put these theories into practice, by allocating adequate funds and staff, and getting work started in the field."⁹

Over the past 15 years, a series of pilot programs aimed at improved natural forest management counteracted previous neglect, and hundreds of thousands of hectares now benefit from improved management. Co-management of natural forests, and forestry extension programs incorporating an expanded menu of agroforestry, farm forestry, improved soil and water conservation, and community-based land use planning practices are now being actively promoted across the region.

*Synergies ... have
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greater food
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increased
household
incomes have
frequently been
achieved.*

Continuing assessment and evaluation of these pilot programs and evolving forestry sector investments has revealed a number of failures, successes, and many unexpected results. Study tours, farmer-to-farmer exchange visits, and other local investments in training, community organization, and capacity building have helped stimulate further innovation and adaptation by rural producers. The scope of improved management practices has steadily expanded. Synergies and positive feedback between improved resource management and enhanced prospects for enterprise development have emerged, and greater food security and increased household incomes have frequently been achieved. Improved local level governance and more democratic, transparent decision-making have often resulted in conjunction with increased support for participatory, decentralized approaches to NRM. Empowerment of community-based organizations and enhanced partnerships between local communities, government technical services and the private sector has helped to lower the costs and improve the efficiency of delivery of support services and local infrastructure investments, such as improved water supply and road improvements.

These advances have provided us with multiple images of tomorrow's forest: dynamic, innovative, economic, market driven, integrated, co-managed and shared.

⁹ Jackson, J.K., G.F. Taylor and C. Conde-Wane. 1983. *Management of the Natural Forest in the Sahel Region*. Ouagadougou/Paris: CILSS/Club du Sahel. Sahel D(83)232. p.77-78.

HOW CAN WE CAPITALIZE ON INVESTMENTS IN TOMORROW'S FORESTS?

While examples of tomorrow's forests are emerging, increased investments are needed to further support its growth. Investing in tomorrow's forest requires more than simply mobilizing the state's financial resources. It requires the involvement of local, national, regional and international actors. Furthermore, investing in tomorrow's forests requires more than financial resources. It requires political will, social investments and, most importantly, the active involvement of individual entrepreneurs and communities. Thus investing in tomorrow's forests involves multiple actors investing financial, political and social resources.

Thirty years ago the state was largely responsible for investing resources in the forestry sector. With the changing definition of the forest new actors have emerged. There is a role for all the key stakeholders in investing in tomorrow's forest, from farmers and herders, to local communities and district officials, NGOs, private sector operators, government technical services and political leaders. This blossoming of new actors not only brings wide support to the sector, but it also allows for the creation of new relationships and partnerships between actors.

An important step towards increasing the efficiency and effectiveness of development assistance to the forestry sector will be to capitalize on experiences gained to date and take stock of changes and opportunities in the forestry sector. Investing in tomorrow's forests brings with it the promise of significant returns on this investment. These potential benefits need to be more carefully assessed and widely communicated, as part of an effort to engage the widest possible participation in the development and implementation of these investment strategies.

Investing in tomorrow's forest will require a reversal of the declining levels of assistance to the forestry sector and the current tendency to marginalize government services. This can be accomplished by supporting forest policy reforms, strategic planning, program implementation, extension, research and human resources development aimed at the improved management of trees and forests.

It is also clear that investing in tomorrow's forests implies much more than an increase in development assistance to the sector. Factors outside of the forestry

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Investing in tomorrow's forest cannot succeed without a clear demonstration of political will and leadership that embraces and actively nurtures the realization of a shared vision of tomorrow's forests by all stakeholders.

sector have the potential to influence investments in the sector, while direct investment can be overshadowed by external factors. For example, in the upper Niger River Valley area near Bamako, agricultural reforms appear to have led to agricultural intensification. This in turn has had positive impacts on forest areas—perhaps more so than most tree planting programs. The forestry sector has to realize the influence of external factors and rethink its relationship to other sectors. Thus there is a need to improve coordination and synergy with other sectors whose activities affect the sector. This is particularly the case with agricultural and rural development, water resources management and energy sector investments.

Investing in tomorrow's forests will also require giving more consideration to the mobilization of co-financing at the community level, and greater attention to the development of sustainable financing strategies through the establishment and transparent management of special funds, credit schemes and other sustainable financing mechanisms. As tomorrow's forest is an economic forest, much financial investment will also come from private resources. Private entrepreneurs linked to markets are playing an increasingly important role in the forestry sector, as many of the examples in this report illustrate.

Investments are also needed in human and institutional capacity building, the management and dissemination of knowledge, and building upon lessons learned. The last element is crucial—it will be necessary to build on the number of interesting and successful examples throughout West Africa—from promising policy reforms at the national level to significant and innovative field activities at the very local level.

Finally, and most importantly, investing in tomorrow's forest cannot succeed without a clear demonstration of political will and leadership that embraces and actively nurtures the realization of a shared vision of tomorrow's forests by all stakeholders. With strong support from national decision-makers and leaders, and a groundswell of popular participation coupled with behavioral change induced by clear incentives, increased recognition of the benefits to be gained from proposed investments, and a removal of the constraints to scaling up the successful approaches that have been documented in this report, there is every prospect that tomorrow's forests will flourish.

ENABLING CONDITIONS

The following enabling conditions for investment in sound forest management were identified based on the field visits and workshop discussions.

Individuals are more likely to invest in sound forest management when they:

- ♦ perceive that they have clear authority to manage the forest resource and have rights over the products of better management;
- ♦ have access to capital and markets for the products of better management;
- ♦ have access to appropriate technical assistance and knowledge of a broad range of management options;
- ♦ belong to democratically-run, business-based, legally-recognized producer groups;
- ♦ are able to fund forest management operations with revenue generated by local forest-based activities; and
- ♦ can balance forest management with other aspects of the rural production system.

The above conditions were created by one or more of the following actions:

Policy or legal reforms that:

- ♦ devolved authority to local populations;
- ♦ provided property rights or usufruct security for products of better management;

- ♦ allowed legally-recognized producer groups to develop management plans and legally-recognized bylaws for managing local forest resources and allowed them to enter into contracts with private operators and/or government on exploitation of forest resources;
- ♦ allowed for revenues generated from forest enterprises to be reinvested in management at the site of exploitation and to support Forest Service Operations; and
- ♦ were communicated and are well known to rural populations.

Institutional reforms that:

- ♦ strengthened the technical assistance function of the Forestry Service and turn it into a Service that acts more like a partner than a policeman;
- ♦ allowed for the legal recognition of CBOs and the development of clear, practical, and simple forest management plans by the Forestry Service and CBOs working as a partnership; and
- ♦ allowed for legal recognition of CSOs and freedom of association

Research and Training efforts that:

- ♦ supported government and private sector professionals in gaining forest inventory and management skills;
- ♦ supported community members in functional literacy, numeracy, enterprise and organizational management, as well as community-to-community visits to exchange experiences;
- ♦ researched forest management and forest product processing; and
- ♦ developed and supported knowledge management systems aimed at identifying, assessing, and broadly disseminating information about forestry experiences (not only to other producers, but to Forestry Service personnel, donors and the international community).

Support to CBOs that:

- ♦ provided intermediary services to CBOs to help them gain credit and markets without creating dependencies or market distortions; and
- ♦ developed infrastructure to link rural populations to markets.

APPLYING WHAT WE HAVE LEARNED

Without sufficient economic incentives and in the absence of other favorable enabling conditions, widespread change and long term success is unlikely.

The improved management of trees and forests cannot be pursued in isolation, through sectoral efforts. Forest management can be a complex undertaking, and requires careful consideration of biological, economic, social, cultural and institutional factors. The status of incentives and constraints, enabling conditions for behavioral change, and the likely impacts of proposed interventions on “winners” and “losers” are but a few of the many aspects to be considered. Without sufficient economic incentives and in the absence of other favorable enabling conditions, widespread change and long term success is unlikely.

The lasting impact and effectiveness of many investments in the forestry sector have been compromised by inadequate provisions for exit strategies and insufficient attention to monitoring and evaluation. An iterative approach to the design and implementation of community level assistance and program support can be effective, when informed by periodic field-level assessments, impact monitoring, stakeholder consultations and the facilitation of dialogue through appropriate mechanisms for collaboration and coordination. A greater appreciation of local, traditional knowledge and provision for continued experimentation, adaptation and innovation at the local level can help to make programs more successful.

The accumulated experiences of many investments ... and local innovation present a wealth of lessons learned that can be capitalized and systematically applied ... in the forestry sector.

It is critically important to make better use of the available technologies to regularly monitor and report on the changing extent and condition of forest resources, and to track trends in the use and productivity of these resources. To date, most countries do not have up-to-date forest inventories, cannot reliably assess the sustainability of current harvesting practices and are unable to identify emerging threats to the sustainable use of forests or opportunities for their improved management. Before new information is gathered however, constraints to its use should be addressed, because although information is lacking what is already available is often not well used.

The accumulated experiences of many past investments, pilot projects, and local innovation present a wealth of lessons learned that can be capitalized and more systematically applied in the interest of improving the efficiency and effectiveness of investment in the forestry sector. One important lesson is the need to link forestry sector investments to the achievement of results in such critically important areas as poverty alleviation, food security, health, improved governance and rural development.

Another key lesson is the importance of focusing less on resource protection and on slowing or arresting resource degradation, and more on how to mobilize stakeholders in pursuit of the opportunities for improving resource management in ways that directly contribute to increased household incomes, more secure livelihoods, enterprise development, expanded commerce and improved socio-economic well-being. This can be done by a concerted effort to increase, direct and manage the considerable regenerative capacity of trees and forests. Forests are dynamic ecosystems that can respond to the evolving management objectives of local stakeholders, and that can be managed proactively to generate the goods and services that respond to local and national needs and priorities. At the same time, a shift in emphasis from regulation to empowerment can greatly increase the efficiency and effectiveness by which these management objectives and associated results are achieved.

Community based management of natural resources requires investment in the organization, training and capacity development of legally recognized, empowered community-based organizations. Given the key role played by the State in the process of transferring authority and rights to local communities and resource managers, the continued support of government decision makers and political leadership at all levels is vitally important.

The juxtaposition of modern and traditional tenure rights and rules governing the use and management of forests and other natural resources has been a source of tension and conflict. More attention to securing property rights and to clarification of rights, rules, authorities and conflict management procedures is needed, with an appropriate level of empowerment of local decision-making structures.

The decentralization process has frequently been hampered both by confusion about the emerging and changing roles of stakeholders (eg: insufficient elaboration and communication of the new policies, regulations and practical procedures to be followed etc), and by a reticence of the part of government authorities and vested interests to fully implement the new policies and legislation. This reticence can be partially countered by increased attention to the opportunities to disseminate information more widely, and to support the role of civil society in promoting greater transparency, accountability and advocacy for implementing the new policies. In the process, traditional authorities and other vested interests should not be ignored, but engaged in an appropriate manner.

A shift in emphasis from regulation to empowerment can greatly increase the efficiency and effectiveness by which management objectives are achieved.

Continued support of government decision makers and political leadership at all levels is vitally important.

These lessons, and other insights gained from field level innovations and assessments of what has worked and why, are contributing to our increased understanding of enabling conditions and evolving “best practices”. These can be applied to increase the effectiveness and efficiency of forest sector investments. It is in our collective interest to make the most of these lessons and to apply what we have learned.

THE EXPECTED BENEFITS OF INVESTING IN TOMORROW'S FORESTS

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By investing in tomorrow's forests, we can hope to see improvements in socio-economic well-being, local governance and reduction in environmental degradation from successful pilot efforts and local level innovations extended to a much broader scale, involving millions of rural producers and local communities.

The benefits of this investment will be felt well beyond the physical boundaries of the forest. Tomorrow's forest is managed for improved ecological health and provides numerous environmental goods and services including watershed protection, and the conservation of water and soils. It also serves as a foundation for agriculture and rural development.

Investing in tomorrow's forest will pay economic dividends. Forest are increasingly becoming a factor of economic growth and diversification for rural communities. Communities are developing management plans for natural forests that include apiculture, gum and fruit harvesting, livestock husbandry and sustainable wood collection. For plantation forests, individuals are increasing revenues through the sale of construction wood. While communities and individuals receive return on investments, consumers also benefit by lower prices and increased supply of goods and services.

Finally investing in tomorrow's forest directly promotes local good governance by increasing participation, accountability and transparency. Natural resource management efforts are in some cases leading the way in promoting democracy

across West Africa. Involving communities in natural resource management processes empowers individuals and communities to make decisions about the very resources upon which their livelihoods depend. Investing in tomorrow's forest, therefore, will directly and positively affect the livelihoods of millions of West Africans.

THE WAY FORWARD

The forestry sector has made progress in addressing difficult issues over the last 25 years. The way the sector is being managed today is different than the past. The forestry services in a number of countries are leading the decentralization process by sharing forest management authority and responsibility with local communities. Where management authorities have been devolved, important environmental, economic and social benefits have been realized.

Forests are therefore important environmentally, economically and socially. Despite this importance, the forestry sector has been neglected in recent years. Interest has shifted away from the forestry sector towards poverty alleviation, governance and biodiversity. However, lessons learned over the past 25 years have clearly demonstrated that the forestry sector has a vital role to play in advancing these very concerns.

The examples cited in this report have revealed that the seed of tomorrow's forest can be seen today, where local innovators have been empowered, and where progressive approaches and the application of lessons learned from earlier investments have been thoughtfully applied. Tomorrow's forests are the fruit of a variety of approaches and management objectives, well adapted and suited to differing contexts, community priorities, changing aspirations and market-driven opportunities. Further evolution in these approaches and supporting program strategies is anticipated, as we continue to assess, evaluate and learn from failures and successes, and adapt to changing circumstances and opportunities.

At the conclusion of the review—including the analysis of survey responses, the field visits and the workshop—a number of key recommendations have emerged, including:

The seed of tomorrow's forest can be seen today, where local innovators have been empowered, and where progressive approaches and the application of lessons learned from earlier investments have been thoughtfully applied.

Despite encouraging trends, important hurdles and issues must still be addressed

- Integrate a multi-disciplinary analysis of environmental trends and forestry sector intervention strategies into overall economic development planning and take into account emerging shifts toward decentralization and regional economic integration;
- Promote the management of dynamic forest resources as part of a longer term vision and investment strategy;
- Prepare strategic plans on the basis of updated monitoring data and information emerging from both traditional field assessments and the new remote sensing and GIS technologies;
- Promote human resources development through education, training, communication and information dissemination;
- Mobilize financial resources to a greater degree at all levels;
- Promote increased accessibility of information about policies, legislation, regulations, guidelines and procedures related to decentralized management of forest resources among all the key stakeholders;
- Recognize the critical importance of strengthening local capacity and field level support for activities related to improved management of trees, forests and other natural resources;
- Strengthen scientific and technical research in forestry, in conjunction with efforts to support sustainable agricultural intensification and integrated rural production systems, with an emphasis on sustainability, income-generation and equitable benefit distribution; and
- Encourage the creation and functioning of mechanisms for cross-sectoral collaboration and dialogue among key stakeholders.

Despite encouraging trends, important hurdles and issues must still be addressed if we are to reinforce the establishment of favorable enabling conditions and facilitate the scaling up of successes in improving the management of trees and forests. Without a concerted effort to make the most of opportunities to invest in tomorrow's forest and to improve development assistance effectiveness, the forces and pressures that now stall or hinder efforts to improve forest resources management will likely result in loss of income and continued disenfranchisement of rural people. Economic growth will be undermined, and conflicts over resource shortages and incompatible uses will be aggravated.

Nevertheless, success becomes possible when local and national leaders invest in developing a shared, doable vision of tomorrow's forests—and when they work together to ensure appropriate incentives while removing impediments to investment. Success is reachable when a strategic, comprehensive program for investing in tomorrow's forest is well articulated and fully integrated into the political agenda and investment priorities. This integration will most likely follow the realization that investing in tomorrow's forests is not simply a matter of protecting forests or planting trees. Rather, it offers a critically important pathway to achieving results and having an impact in alleviating poverty, improving governance, empowering local communities, securing sustainable development, and enhancing the well-being of Africa's people.

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Tree Cover and Cropland Mosaics, 1992–1993

