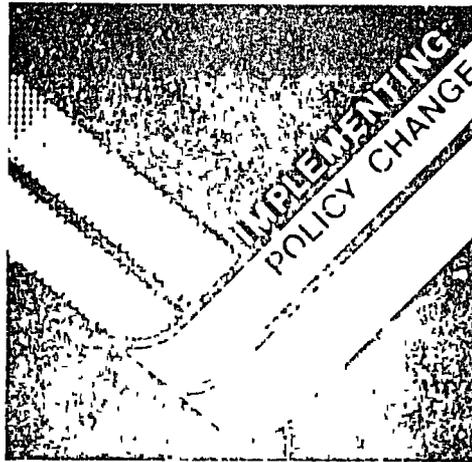

FORESTRY POLICY REFORM IN MALI:

An Analysis of Implementation Issues

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and
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* Since this study was conducted, the University of Maryland disbanded IDMC. Derick Brinkerhoff joined Abt Associates, where he continues to serve as IPC research coordinator.

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Forestry Policy Reform in Mali: An Analysis of Implementation Issues

I. INTRODUCTION

This study is part of an ongoing stream of inquiry into the organizational and management issues involved in natural resources management (NRM) policy implementation in Africa. It derives its particular focus on these issues from an earlier investigation, based on A.I.D. documents and the NRM literature (Brinkerhoff, Gage, and Yeager 1992). The present study is one of several field analyses that seek to validate and refine the findings and conclusions of the 1992 desk study. The common thread running through all the field studies is an analytic filter that looks at NRM policies in Africa in terms of a set of conditions associated with successful policy implementation.

This study examines forestry policy in Mali, one of the African Sahelian countries that are in the process of revising their forestry codes, which remain heavily based on colonial era legislation. A major thrust of the revisions underway is to facilitate community co-management of forest resources. Many countries are using non-governmental organizations (NGOs) to build new forms of central-local linkages for NRM. The analysis presented below looks at the history and experience of Mali in reorienting its national forest service toward NRM co-management strategies and structures based on active participation of local communities. The study highlights the importance of a strategic management perspective for designing and managing an implementation framework supportive of this new approach to forestry policy.

A. Scope and Methodology of the Study

The purpose of the study is to analyze the management dimensions of forestry policy reform in Mali, and to identify the constraints to the effective application and field impacts of forestry policy reform. The study examines the extent to which Mali's experience with forestry policy implementation fulfills six conditions associated with successful policy implementation. The analysis looks at how Mali has dealt with the following implementation tasks in the forestry sector: 1) defining intended policy outcomes, 2) specifying and managing appropriate actions to achieve policy objectives, 3) structuring implementation arrangements and responsibilities to assure compliance, and 4) obtaining required resources and support. The study assesses the prospects for successful forestry reform resulting from the efforts currently underway in Mali, and discusses potential management strategies and actions that could increase the chances of successful forestry policy implementation.

The study used a rapid appraisal methodology that combined interviews, site visits, and document review. Field data collection began with the attendance of Dr. Derick Brinkerhoff and Mr. James Gage at a regional conference on forestry code reform held in Bobo-Dioulasso, Burkina Faso, January 18-21, 1993, sponsored by the "Comité Permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel" (CILSS), the University of Wisconsin's Land Tenure Center (LTC), and USDA's Tropical Forestry Program (as well as several USAID Missions that contributed

funding for host country participation). At the workshop the IPC team made initial contacts with Malian forest service officials, and planned for the Mali field visit. In-country activities took place between January 24-February 4, 1993. In Bamako, Dr. David Miller, a local consultant provided to IPC by LTC, joined the team. During that period the team conducted interviews with Malian government personnel, USAID staff and contractors, Peace Corps, NGOs, Malian politicians, representatives and technical assistance personnel from other donor agencies, and NR users (see Annex B for a list of persons contacted). Outside of Bamako, the team visited Eaux et Forêts offices in Kati and Sikasso.

Prior to the team's departure from Mali, preliminary findings were shared with top management of the Malian forest service at the Direction Nationale des Eaux et Forêts (DNEF) through a presentation and discussion meeting. Similar debriefings were held with USAID/Bamako, the Club du Sahel/Paris, and AID/Washington. The case study was written after these meetings. A first draft was sent to AID/ARTS/FARA, AID/RD/EID, USAID/Bamako, and the DNEF for comment, with the final draft completed following receipt of responses.

B. Defining Policy and Policy Implementation

The study uses the broader definitions of policy and policy implementation for NRM that guided the document and literature review (Brinkerhoff, Gage, and Yeager 1992). Public policy is defined as government decisions to use its resources to intervene in the behavior of (some) citizens to change that behavior in a desired direction. These decisions are formally embodied in laws, legal statutes, executive orders, and so on. In the Mali case, the basic legal expression of forestry policy is contained in the "Code forestier," or Forestry Code.

Policy implementation is defined as the process that runs from the passage of the basic statute, through the decisions and outcomes of designated implementing entities, to the compliance of target groups with the policy objectives. Policy implementation covers the operationalization of policy prescriptions into goals and actions that specify the agents, procedures, capacities, and behaviors required to produce the intended outputs at various levels (national to local). The focus is on the analysis of the various factors that influence the achievement of stated policy objectives throughout this process.

C. A Model of Policy Implementation

The study's analytic framework uses a model that sees policy implementation outcomes as a function of three categories of variables: the problem the policy is intended to solve, the way implementation is structured and managed, and the sociopolitical and economic setting in which implementation takes place (Mazmanian and Sabatier 1989: 18-48). These variables are reflected in six conditions empirical research has shown to be associated with successful implementation:

1. The policy and its statute(s) contain clear and consistent objectives, or some criteria for resolving goal conflicts

2. The policy accurately identifies the principal factors and linkages leading to, and influencing, policy outcomes, including specification of target groups and incentives.
3. Policy implementation is structured to maximize the probability of compliance from implementing agents and target groups. This includes:
 - assignment of implementation responsibility to a capable and sympathetic agency,
 - integrated implementation structures with minimum veto points and adequate incentives for compliance,
 - supportive decision rules (e.g., appropriate authority and procedures),
 - adequate financial resources,
 - access to, and participation of, supporters
4. Leaders and top managers possess substantial strategic management and political skills, and are committed to the policy objectives
5. The policy receives ongoing support from constituency groups and key stakeholders within a neutral or supportive legal system
6. Socioeconomic and political conditions remain sufficiently supportive and stable so that the policy is not undermined by changes in priorities, conflicts, and/or radical shifts in resource availability for implementation.

No policy in the real world enjoys an implementation experience where all six of these conditions are fully met, especially in the short-term. Policy implementation always faces a suboptimal scenario, where the challenge is to seek ways to increase the degree to which the conditions are achieved, while recognizing that success will remain partial and elusive. When anticipated results do not materialize, the usual tendency is to ask, what is wrong with the legal statute, and how should it be changed? Policy reform often focuses on rewriting the legislation.

While modification of the content of legislation may be necessary, it is almost nowhere sufficient. Research on policy implementation has shown that the effectiveness and ultimate impact of reform measures depend critically upon appropriate conditions and capacities for managing the implementation process. However, policy debates tend to focus on technical content rather than how reforms will be put in place and applied. The study's analytic framework serves to incorporate implementation issues into Mali's debate on reform of the "Code forestier."

II. FORESTRY POLICY IMPLEMENTATION IN MALI

The economies of the countries of the African Sahelian region are highly dependent upon their natural resources base, yet those resources are being consumed at an increasingly nonsustainable pace (Taylor and Soumare 1986). The Sahel is suffering growing environmental degradation, which reduces further the capacity of its NR to withstand the demands of increased socioeconomic development and population pressure. The region's forests, including Mali's, have come under intense pressure to fulfill an important set of economic and production needs (Bertrand 1985). In Mali, 90 percent of domestic energy consumption is dependent upon wood and charcoal (MDRE 1992d, MRNE and Coopération Suisse 1987). Besides fuel, Malians depend upon trees for other critical uses. Wood is a major construction material; tree branches serve as an animal food source (forage) during the dry season, trees protect and enrich soils, and provide windbreaks for crops. Secondary forest products are an important component of both the local and export economies e.g., kante, gum arabic, fruit, and dyes.

Mali's efforts to manage its forest resources have been pursued within a policy framework that vests power and authority over those resources in the state, and assigns primary implementation responsibility to a government agency: Eaux et Forêts. This section of the report tells the story of Mali's experience in implementing forestry policy.

A. Mali's Forestry Code

The roots of Mali's present-day forestry policy derive from the legal and administrative framework developed during the Sahel's French colonial period. This framework established several principles that have shaped forestry policy and its implementation since the turn of the century (see Wunsch 1990). Foremost among these are the primacy of the centralized state as the legitimate source of governing authority over all natural resources, the state ownership of all lands deemed empty ("terres vacantes et sans maître"), and the precept that productive use ("mise en valeur") establishes the legal basis for ownership of land (McLain 1992b). These principles are embodied in the provisions of the 1935 forestry decree of the French colonial administration.

1. The Colonial Legislative Heritage

For the territory of French West and Central Africa, the July 4th, 1935 law defined the authority of the colonial power to a) protect forests from overuse by regulating extraction of such forest products as firewood, charcoal, and lumber; and b) protect and restore forest areas that had become degraded (Elbow and Rochegude 1990). The law distinguished between forest and non-forest lands, created the distinction within the forest lands category between classified and protected forests, imposed restrictions on access to and use of natural resources depending upon the category of forest, and established a system of permits and fines to enforce the restrictions. Further, the law called for the creation of a forest service charged with the responsibility for implementing the law, and specified the police powers necessary to carry out the regulations and prohibitions enumerated in the decree.

2. The 1968 and 1986 Forestry Legislation

The original 1935 law was modified twice. However, both the 1968 Law No. 68-8/AN-RM and 1986 Law No. 86-42/AN-RM made only minor changes. The current legislation regulating the management and exploitation of forests in Mali is the latter statute, signed by President Moussa Traore on March 24, 1986.¹ A related law (86-66/AN-RM), the "Code de feu," passed on July 26, 1986, outlawed all bush fires (see also Compaore 1992).

In keeping with the centrality of the role of the state, the law specifies that forest service agents and other designated administrative officials ("gouverneurs, commandants de cercle, chefs d'arrondissement") control the definition, use, and exploitation of the state forest domain (divided into the classified forest, "domaine forestier classé," and the protected forest, "domaine forestier protégé")² However, definition of these categories is relatively vague, including the basic definition of a forest "an association of biologically interdependent trees ... that exert an influence over a more or less large territory" (Article 1)

The code allocates to Eaux et Forêts agents broad, but relatively ill-defined police powers (Article 54). Articles 53 and 72 cite the execution of police functions by both sworn forest agents and administrative officials without clearly specifying their respective roles. According to Article 72, administrative officials are charged with applying the forestry code in the absence of a forest agent. Forest service agents may enter houses, sawmills, construction sites, and so on to verify that the provisions of the code are respected.

The code cites local-level participation twice: the village chief and an interested advisor are consulted in the forest classification process, and the village chief has a limited role in identifying (but not adjudicating) forestry infractions (Article 56). The major emphasis in the code, though, is on the enumeration of state rights and responsibilities, rather than collective and/or individual rights of citizens

The mechanism specified in the forestry code for the enforcement of its provisions is a system of permits and fines. Private as well as commercial exploitation of forest products requires a permit. Permits are issued only to individuals who are properly registered prior to exploitation (Article 43). Permits for private use are free, the forest service charges a fee for commercial permits. Permits specify areas, time periods, types and quantities of trees to be harvested, as well as approved methods of exploitation (Article 44). Articles 65 to 71 detail the penalties and fines for violations of the code. In comparison to average incomes in Mali (GNP per capita \$230), the fines are prohibitively severe. These high fines were instituted in 1986 to discourage ecologically destructive practices, the theory being that local resource users would modify their behavior to avoid the prohibitively high penalties.³

B. State-Led Implementation of Forestry Policy

Following from the statist orientation of the forestry code, implementation authority for forestry policy is vested in a government agency. A look back at the founding of the Malian forest service illustrates that the seeds of later implementation difficulties were sown early.

1. Origins of the Forest Service

The forest service was created under the 1935 legislation as the enforcement agent for the provisions of the forestry law. In the early years, the service's primary operational objective was to manage forests along the Dakar-Niger railway and the Niger river to provide woodfuel for the steam-driven locomotives of the railroad and the riverboats of the steamship company (Messageries Africaines). The service was headed by a small corps of expatriate colonials, with forest agents recruited from the military and police, and assigned to the prefecture (cercle) commander. Initially attached to the agriculture service, the forest service operated as an autonomous agency between 1938 and 1966, when it once again came under the supervisory authority of the agriculture ministry.

At that time, the structure of regional-, cercle-, and arrondissement-level units was created; and forest agents were detached from direct supervision by the cercle commander. In 1972, the government created the Direction Nationale des Eaux et Forêts (DNEF), thereby putting in place the organizational structure that has endured with only minor internal tinkering for the past twenty-one years.

The 1935 forestry code defined the mission of Eaux et Forêts as protection of natural resources of three types. Subsequent modifications to the original legislation in 1968 and 1986 elaborated upon, but did not change the tripartite protection mission. The three types are.

a. Spatial. Protection of the "domaine forestier," whose legal framework allocates authority to the state to define rights and responsibilities over all unregistered land, is the overarching mission of Eaux et Forêts. It is this mission that gives the forest service its broad mandate to regulate access and use almost anywhere. The "domaine" concept does not make a distinction between where Eaux et Forêts' regulations do and do not apply, but rather establishes the notion that all spatial areas within the "domaine" are subject to more or less restrictive policing measures depending upon their classification.

b. Fire hazard. Within its larger spatial mandate Eaux et Forêts has a specific mission to protect forest areas against destruction by fire (see Compaore 1992). This mission derives from the legislation referred to as the "code de feu." The forest service's major role in fulfilling this mission has been enforcement of a system of fines for unauthorized fires. This type of protection took on special prominence with the 1986 law forbidding all bush fires.

c. Overexploitation. Protection of forest resources from overexploitation is operationalized through Eaux et Forêts' system of permit allotments, issuance of infractions, and levying of fines. This function addresses resource protection directly through the tree cutting and trimming permits, which specify where, when, what species, and how much of forest resources can be harvested, and for what purposes (domestic versus commercial). Indirect protection derives from enforcement of the regulations on improved cooking stoves ("le foyer amélioré").

Thus, the legislative and legal stage was set for Eaux et Forêts to become a dominant actor in the lives of Mali's rural population. The drama pitted forest agents, charged by the state with protecting natural resources, against the peasant citizenry, dependent upon exploiting those natural resources for their livelihood. The script played itself out in increasingly conflictual terms over the years.

2. Implementing the Protectionist Mission

In keeping with its paramilitary roots, Eaux et Forêts' approach to fulfilling its protection mission was to pursue policing and enforcement of regulations as vigorously as its staffing levels and operating resources allowed. The forestry code vested Eaux et Forêts' agents with significant power over the rural population by allocating them authority over access to and use of trees, game, and fish. Because the articles of the forestry code were not accompanied by clear specification of the terms and conditions for their application, in practice forest agents have had wide discretion in interpreting forestry policy. These legal ambiguities, coupled with the public sector implementation arrangements for application of the code, have contributed to a number of unintended, negative consequences.

Eaux et Forêts, as part of Mali's government apparatus, has shared many of the operating constraints that characterize developing country public sector agencies: limited operating budgets, low salaries, cumbersome civil service personnel policies and practices, few rewards for superior performance, and insulation from public reaction (see Mukandala 1992). The forest service, however, through the permit and fines system, possessed an important revenue source for supplementing: a) the agency's operating budget, and b) individual agents' salaries. For the agency these revenues fed the "Fonds forestier," a dedicated account established in 1967 over which Eaux et Forêts had discretionary authority. For individuals, there was a formula that distributed a percentage of fines among the agent administering the infraction, his superiors, and national-level staff. Thus, built into the forest service's operating structure were strong incentives to stress policing and collecting of fines. This incentive structure transformed the permit and fine system into a form of rural taxation (MRNE and Coopération Suisse 1987, see also Shaikh 1986).

From de facto taxation, it was only a short step to opportunities for corruption and quasi-extortion. Added incentives for taking that step arose from several sources: a) the discretionary power of individual agents to interpret the nebulous provisions of the forestry and fire codes to their and the state's advantage, b) the lack of effective supervisory arrangements to check abuses, c) the absence of affordable recourse for peasants to contest excessive fining, and (d) the 1986 modifications in the legislation that drastically increased fine amounts and outlawed bush fires. As a result of vigorous enforcement of the fining system, forest agents earned a reputation for abuse and repression, and at the time of Mali's coup d'état in 1991 they were singled out for reprisals at the hands of the rural population.

This incentive structure had perverse effects on the behavior of the nominal target group for forestry policy as well. Faced with forest agents who controlled access to resources they needed to survive economically and a level of official fines (especially after 1986) well beyond their ability to pay, Malian peasants negotiated reduced fines and payoffs, rather than engage in confrontations they could not win. Ironically for Eaux et Forêts' protection mission, the

corruption of the fining system increased environmentally damaging behavior. Villagers elected to risk unlicensed tree cutting, knowing that they could bargain the forest agent down to a lesser fine since the agent preferred to maintain his paying sources of under-the-table revenue rather than jail them. Because negotiated fine amounts bore no relationship to the magnitude of the infraction, peasants cut as much as they wanted, recognizing that the fine for cutting a single branch or fifty would be the same. Rural residents came to view fines as the price of access to forest resources, rather than measures that discouraged particular types of behaviors and encouraged others (see McLain 1990b, 1991c).

Further, rural residents had few incentives to enforce indigenous rules governing forest areas via traditional means, because a) the forestry code abrogated them in favor of state control, thus delegitimizing customary NRM practices, and b) application of the forestry code by Eaux et Forêts agents frequently overruled and undercut traditional authority in cases where local communities attempted to regulate tree use on their own. The result was an adversarial relationship between forest agents and local residents, characterized by mistrust, fear, and eventually enmity.

3. Increasing Contradictions in Implementation

Reassessment of Sahelian natural resources policy, including the forestry sector, began in response to the drought in the early 1970s, and continued into the 80s during the economic downturn that created stagnation and then belt-tightening across the Sahel (see Bertrand 1985, Chaumié 1985). In Mali, the effectiveness and appropriateness of the protectionist approach to forestry policy came to be increasingly questioned, as well as Eaux et Forêts' capacity to implement it (See Section C below). These policy shifts led to a number of changes. In 1981, the functions and tasks of the DNEF were expanded beyond natural resources protection to include forest management and conservation-oriented exploitation, with a focus on combatting desertification (Law No 81-24, August 6, 1981). Much of this change was given impetus by donor-supported initiatives.

Government policy statements began to call for recognition and legitimation of the economic use of natural resources as well as their protection. Thus Eaux et Forêts' policy mandate shifted toward extension and "animation rurale" to provide technical support to peasants for the rational exploitation of forest resources. These new functions were essentially grafted onto Eaux et Forêts' existing paramilitary structure and procedures, while the legal framework within which it operated remained relatively unchanged (see Shaikh 1986). Ironically, the 1986 revision of the code strengthened the emphasis on protection by radically increasing financial penalties for infractions. This shift further escalated the difficulty Eaux et Forêts faced in bridging the inherent contradiction between its socioeconomic development and police functions.

Various donor-funded projects were designed during the 80s to build Eaux et Forêts' institutional capacity to become an extension service with a core of social forestry techniques and expertise to offer to rural residents. For example, the Swiss institutional development project in the Eaux et Forêts regional office in Sikasso, the "Projet d'Appui à la DREF" (PADREF), began at this time. By the mid to late 80s, Norway, the Netherlands, France, and the United States all had initiated projects that had capacity-building components. Multilateral donors also provided

institutional development as part of their projects (World Bank, European Community, United Nations).

However, the marriage of the community development worker role with the police function proved difficult to consummate for several reasons. First, field agents operated with minimal institutional support for activity of any kind, particularly extension, which calls for programmatic objectives, a technical package and back-up, training, and logistical and budgetary resources. In the relative absence of this support despite donor-funded project efforts to provide it, isolated forest agents found it easier to fall back on enforcement of regulations and fining. Second, in the eyes of Malian peasants, forest agents were policemen, not extensionists. They viewed these development services as coming from agriculture and livestock agents. In a sense, forest agents were latecomers to the "competition" for rural extension service provision, handicapped by their negative enforcer role. Third, Eaux et Forêts' paramilitary ethos, built up over many years, meant that the profile of the average forest agent was much more suited to policing, in terms of both mentality and training, than to community outreach.

The result of the forced union was a kind of organizational schizophrenia where DNEF leaders espoused a participatory extension message while the service's field agents engaged in ongoing abusive policing practices. The schism took on a generational dimension as Eaux et Forêts hired new staff trained in the community forestry mode in response to the changing policy mandate and donor-supported institutional strengthening projects. This created an internal division between the "old guard" paramilitary forest agents, who because of seniority occupied the service's leadership positions, and the younger agents. Further tensions between the generations arose because the younger agents were more likely to be selected to participate in donor or NGO projects, where they had access to a variety of benefits, such as salary supplements, per diems, training opportunities, lease-purchase arrangements for motorcycles, and so on.

Besides straining the service's organizational capacity, the expansion of Eaux et Forêts' mandate in the 80s heightened the underlying contradiction between Mali's state-led approach to implementing forestry policy and the reality of worsening NR depletion and environmental degradation. It became increasingly evident, both to Malians and donor agencies, that reliance on public sector agencies as the sole implementors of NRM policy was not a feasible approach to achieving intended policy outcomes in either the forestry or other NR sectors. This realization prompted a rethinking of the role of the state in NRM, in the wider context of the re-evaluation of state-directed African development strategies in response to the disappointing performance of the sub-Saharan economies (see Boye 1993, Giri 1993, Moore 1993, World Bank 1981, Wunsch and Olowu 1990).

C. Rethinking the Role of the State: Local-Level Natural Resources Management

The reconsideration of the role of the state in NRM focused renewed attention on the traditional NRM systems of precolonial times and their current vestiges. This focus led first to a series of studies of indigenous NRM practices, and second to experimentation with local-level NRM as an alternative and/or a supplement to the state-led model.

1. Traditional NRM Practices

Resource tenure and management issues in Mali have been investigated by a host of Malian and external analysts, who have generated an extensive literature too vast to discuss here.⁴ Several themes have emerged from these investigations that relate to reassessing the role of the state in NRM in general, and in forestry in particular.

a. Richness of traditional institutional stock for governing natural resources

Although the forestry code and the related land legislation ("Code foncier") treat traditional NRM as virtually nonexistent, Mali has a dense web of indigenous NRM institutions. These were the dominant mechanisms for governing resource access and use in precolonial times. Despite their delegitimization and suppression during the colonial and post-independence periods, many of these institutional mechanisms have persisted to the present day, albeit in a much-reduced form.

An example of an indigenous regulatory code is the "Dina," created in the early 19th century by a Fulbe ruler, to manage pasture, water and other natural resources in the Niger Delta (Lawry 1988, Crowley 1991b). The "Dina" regulated, through a council of chiefs appointed by the king, use rights in the delta, including the sequence for cattle grazing on pasture lands by various lineage groups, access points to water, and grazing rights in fragile areas. The council also defined a structure for collecting taxes on livestock. The "Dina" was displaced by the French and later the Malian government's legal statutes (McLain 1991a).

On a smaller scale, individual villages developed traditional rules and management practices among families in villages and between different villages with demonstrated success in NRM. For example, from the precolonial era to the early 1970s the village of Amba in Douentza Cercle managed the Boré forest for a variety of uses-- fuelwood, construction wood, fruits, medicines, and forage-- through a system of traditional common property rules that regulated access and harvesting practices (Dennison and Thomson 1992, see also McLain 1992c). NRM was carried out by a village council. Throughout rural Mali prior to the imposition of state dominance over NRM, local inhabitants devised their own institutional solutions to NRM problems (see CARE 1992e, McLain 1990b).

Thus, one element of the process of rethinking the role of the state in NRM has been the rediscovery of a "bank" of indigenous institutional practices used to manage NR at the local level. Although suppressed for decades, in many villages, vestiges of institutional capacity are still in place and have been drawn upon in developing more participatory approaches to NRM (e.g., Hochet 1989, see also ARD 1989).

b. Interconnections among social, economic, and technical dimensions of NRM

Another factor uncovered in the course of examining local-level NRM was the multiplicity of linkages among the social, economic, and technical aspects of resource use in rural communities throughout Mali. Studies found that traditional NR access and use rules are closely linked to village social structure and culture. In individual villages, the balance of power and authority among lineages, age grades, and initiation societies produces a network of interlocking

obligations, rights, and responsibilities that fulfill a governance function (Crowley 1991b, Hall et al 1991).

Studies also revealed that local people view trees and other forest resources as integrated elements of an economic production system upon which their livelihoods depend (e.g., McLain 1990b and 1991c, Ouattara 1992a and 1992b, Poussy 1992). Peasant producers were found to routinely mobilize labor, material, and cash to sustain the resources they need to survive (Djibo et al 1991). Analysts also determined that local people possessed a wealth of technical knowledge about sustainable NRM that was incorporated into the indigenous institutional mechanisms they used for local governance (e.g., Thomson 1991a, Dennison and Thomson 1992, Chereil 1992, Hesseling 1991, McLain 1992a and 1991a).

c. Increased pressures on traditional practices

As Malian and expatriate analysts documented the existence and application of indigenous NR self-management practices, they also chronicled a number of sources of pressures that have limited the capacities of local people to manage NR sustainably. The Sahelian droughts of the 1970s and 1983-1986, mentioned above, brought a level of resource scarcity, economic deprivation, and physical hardship that surpassed the technical and management capabilities of traditional NRM governance systems. Transhumant herders, desperate to find water and forage for their cattle, competed with sedentary agriculturalists for access to forest lands. The old patterns of sequenced NR access and use between pastoralists and farmers broke down (see Horowitz 1976).

The reduction of economic opportunities in the rural areas, coupled with population increases, led to urban migration that left villages without the young men who in the past peopled the age sets and special societies that local institutions depended upon. Those who returned from the regional cities, Bamako, or France, no longer respected the authority of village elders, further undermining traditional NR control systems already delegitimized by the forest code's provisions and local Eaux et Forêts agents' application of the law.⁵

The construction of roads into new areas introduced pressures on NR that traditional institutions were not equipped to handle. For example, new paved roads in the Fifth region (Mopti) contributed to changed fuelwood market dynamics, the introduction of new commercial NR exploiters (woodcutters and charcoal makers), and revised perceptions of village "terroir" boundaries (Dennison and Thomson 1992, see also Veeneklaas et al 1991). In addition to roads, the construction of dams, dikes, and wells changed the dynamics of forest, land, and water use.

With diminished NR availability, more people competing for remaining resources, and the undermining of traditional NRM mechanisms, the level of local conflict has increased. It became clear that the path to forestry policy reform did not lie in "turning back the clock" to simply reinstate traditional institutional practices, because the conditions that supported those practices in the past no longer existed. Just as the Malian government could not effectively manage the country's NR singlehandedly, neither could local collectivities.

2. Experimentation with Local-Level NRM

By the mid to late 1980s, the results of the studies of local NRM practices began to be disseminated and debated in Eaux et Forêts workshops and round tables, donor agency discussions with Malian government officials, and regional seminars sponsored by CILSS and the Club du Sahel (see Shaikh 1989, McLain 1993, MDRE 1992b and 1992c, Touré 1992). These various exchanges led to the development and funding of a number of projects designed to experiment with strengthening local-level NRM practices. Some of these projects were included as components of the institutional development efforts aimed at building Eaux et Forêts' capacity to work more effectively in partnership with local communities. The "working hypothesis" of these projects regarding the role of the state was that the appropriate function of government is to empower and support local self-governing entities to manage NR through selective devolution of authority and the creation of key enabling conditions (see ARD 1992a and 1992b, Thomson 1991b).

During this period, international NGOs became active as implementing agents for many of the local NRM pilot projects. Their entry into the NRM arena was facilitated by several factors. First, the NGOs had a well-established presence in Mali and the rest of the Sahel dating from the early 1970s, when they managed food relief efforts during the drought. They expanded their experience base and knowledge of village-level realities during the 1980s drought when they became involved in initiatives to promote sustainable rural development. Second, most NGOs strongly favored grassroots activities, local participation, and community empowerment; an orientation that was conspicuously absent among the majority of government field agents. Third, as a result of their long-term presence in the rural areas and their participatory ethos, NGOs were viewed by donor agencies as the most appropriate entities to implement local-level NRM co-management experiments (Otto 1991).⁶ Fourth, NGOs were seen as contributing to sustainability of service delivery due to their private sector status and self-financing potential.

The coup d'état in March 1991 opened the door to a groundswell of popular expressions of discontent with government-led development in general, and with Eaux et Forêts in particular. The transition government organized a number of fora, such as the "Conférence Nationale," held in the summer of 1991, and the "Etats Généraux du Monde Rural," held in December of that same year (see the discussion of the post-coup period in Annex A). Specific to NR, the transition government held a series of hearings on the bush fire code, culminating in a national conference in October 1991 (MDRE n.d.). The outcomes of these and other regional and national "journées de réflexion" and seminars crystallized attention on local-level governance and self-management of NR. The role of NGOs, including a growing cadre of local NGOs, in supporting local institutions was further strengthened. Malian officials throughout the government began to take the position that the state should no longer be the primary actor in all sectors of the society and the economy, but should selectively disengage from activities that the private sector could better handle, and decentralize more decision-making authority to the local level. For forestry policy, this new thinking led to a number of reforms.

D. Recent and Planned Reforms in Forestry Policy

The Malian government's record in implementing forestry policy so as to achieve its original NR protection plus the added NRM objectives that currently constitute its policy mandate has demonstrated a number of critical weaknesses. Eaux et Forêts, resource users, donors, and NGOs are in general agreement on what those weaknesses are, and on the need for reform. These are expressed in a variety of reports and documents (see, for example, MDRE 1992e, McLain 1992b and 1993, Shaikh 1989, Steiber and du Saussay 1988, World Bank 1992) Also, they were repeatedly mentioned in interviews conducted for this study. Deficiencies identified include:

- Excessive centralization of authority over NR and assumption of state monopoly over forest management
- Failure to recognize and support indigenous forest management systems and indigenous rights to forest resources.
- Excessive reliance on punitive enforcement measures
- Incongruities between forest laws and other NR legislation.
- Vague legal definition of forests
- Lack of accessible legal recourse for dispute resolution.
- Excessive discretion in forestry code application by forest agents in the field.
- Lack of appropriate technical and managerial training of forest agents.
- Failure to incorporate regional and local variations in application of the forestry code.

There is also recognition that these weaknesses are not unique to Mali; but apply, to a greater or lesser degree, to all five of the Sahelian countries whose forestry codes are based on the 1935 French colonial statute (see CILSS and LTC 1993c)

I. Specific Reform Measures to Improve Forestry Policy

The Malian government has already undertaken several policy reforms, and has plans for others, designed to address the weaknesses identified. These range from short-term, immediate actions to long-term programs that entail significant departure from current practices.

a. Revision of legislation (forestry and other)

A major focus of forestry policy reform targets the text of the forestry code itself. Over the past two years the Malian government has moved ahead on several fronts. Eaux et Forêts technical and legal staff took a seven-country study tour, sponsored by USAID, to review the experience

of other countries in the region with forestry policy; and participated in the CILSS-LTC regional workshop on forestry policy held in January 1993. The government has also formed a technical commission charged with the review of the forestry code, housed in Eaux et Forêts.

Mali has developed a process which allows for greater public participation in forestry law reform. As mentioned above, in 1991 the Malian government sponsored a series of public hearings at the cercle, regional, and national levels to gather information from rural inhabitants on proposed changes in the "code de feu". Incorporating the popular input, a task force prepared a revised version of the fire code, and submitted it to the National Assembly for debate. The draft legislation contains two important innovations: 1) it allows for the development of specific rules governing bush fires at the regional, rather than national, levels, and 2) it allocates a percentage of the fines from bush fire violations to the affected villages (McLain 1993). The Malian government is using a similar participatory process of public hearings to develop proposals for a revised forest code, and announced on the radio and television in February 1993 its intent to hold the series of meetings. Possible changes in the legislation under consideration include: 1) allowance for regional variation in forest regulations, 2) reduction in fine levels and, as in the bush fire code, allocation of a percentage of fines to villages, 3) clarification of the forest and species categories where provisions of the forestry code apply, with a specific exclusion of trees in farmers' fields, 4) legal recognition of traditional community-level NRM practices, and 5) specification of the legal status of local organizations as managers of forest resources through contracts or delegations of authority from local government entities.

Which changes are incorporated into the revisions in the forestry code will depend upon the outcome of the public hearings to be held over the next several months, and the ongoing deliberations of the technical commission in Eaux et Forêts. Several additional factors have potential to influence the future shape of legislative change. First is the extent to which the Malian government accepts the recommendations of various donor-funded analyses of forestry policy and resource tenure issues, and assimilates them into the forestry code (see for example: McLain 1992b, Hesseling and Coulibaly 1991, Thomson and Tall 1991). A second factor is the outcome of deliberations in the National Assembly on the revised bush fire code, a failure to approve the new code will have negative repercussions on the possibilities for changing forestry legislation. Third is the impact of potential revisions in land tenure policy, another area that has been the subject of intense analysis and debate in recent years (see McLain 1992b, MDRE 1992b and 1992c, Coulibaly et al 1991, Crowley 1991a and 199b). In February 1993, the Malian government, with French support, sponsored a national convention to discuss land tenure legislation and issues (see Diop 1993).

b. Information campaign on forestry laws and procedures

In the context of the larger trend toward greater government transparency and accountability, Eaux et Forêts plans to launch an information campaign on the terms and provisions of the new forestry code. The first step is the organization of the public hearings mentioned above, which will serve as a forum to discuss the broader issues of the role of forest resources in development and local-level NRM, as well as the legislation. Other steps planned include the translation of the forestry code into local languages, and village meetings organized by Eaux et Forêts extension staff to present and discuss the code with rural residents. A related effort is the public

awareness and training campaign included as a component of the World Bank's Natural Resource Management Project (World Bank 1992), which is in the start-up phase.

c. Changes in Eaux et Forêts' structure and operations

The Malian government is undertaking or planning a variety of changes in the major implementing agent for forestry policy. These include a stronger reorientation of Eaux et Forêts' mission toward social forestry, organizational restructuring of the DNEF and the DREF, improved internal organizational systems and procedures, decentralization and devolution of NRM authority, and increased cross-sectoral collaboration.

1. **Reorientation of Eaux et Forêts' mission:** This activity is a continuation of reform efforts undertaken over the past decade to integrate community development and forestry extension into the resource protection mandate of the forest service (see Shaikh 1986, MRNE and Coopération Suisse 1987, Steiber and du Saussay 1988). The most appropriate and feasible combination of police versus technical functions is a topic of ongoing debate within Eaux et Forêts itself, and among the various donor agencies that work with the forest service. The debate has a high sense of urgency in light of the reprisals against forest agents that took place during the 1991 coup d'état, and the strong public criticism and negative image of Eaux et Forêts among the majority of the population, particularly in the countryside.

In response to the current public unpopularity of the service as well as internal assessments of the experience of the forest service in implementing the code, most of the changes under discussion advocate limiting the police functions of Eaux et Forêts and emphasizing a technical role that more closely integrates the forest service's activities with the requirements for socioeconomic development (see MDRE 1992c, 1992e, 1992g, 1992j). Interviewees both inside and outside the forest service emphasized, however, that Eaux et Forêts' mission should contain some kind of NR protection and enforcement function. Thus one component of reorientation is to devise ways to fulfill the policing role more effectively and less repressively.

2. **Restructuring of Eaux et Forêts:** Following from the reorientation of Eaux et Forêts toward a rural development technical support mission, proposals for restructuring the service envision an organizational configuration that separates the policing function from the rest of the agency. Eaux et Forêts developed a revised organigram in the summer of 1992 (MDRE 1992h). The suggested new structure has three national level units:

- The "Direction Nationale des Forêts et de la Conservation des Ressources Naturelles." This unit contains the technical core of the agency, organized into four divisions: projects and programs, development and commercialization, reforestation and agroforestry, and game and resource conservation. The nine regional offices are also attached to this unit.
- The "Direction Nationale de la Pêche et de la Pisciculture." This unit incorporates all the service's fisheries sector activities under one roof. It has four divisions: studies and planning, community development and extension, development of fisheries resources, and aquaculture.

- The "Direction Nationale de l'Environnement " Under this unit is housed the legal enforcement function as well as policy development and coordination with other sectors. There are three divisions proposed: legislation and policy development, technical standards and control, monitoring and enforcement.

At the time of this writing, the proposed restructuring of DNEF is still under discussion, and no decisions have been taken.

At the local level (cantonement), however, some "postes forestiers" have already reconfigured their structures to house code enforcement and fining in a separate unit. Because the local-level offices are small, in practice these units contain only one or two agents. To emphasize further the distinction between police and development functions, it is now standard practice for staff to wear uniforms only when assigned to policing duties.

3. **Improved operating procedures** Accompanying plans for reorganizing Eaux et Forêts are a host of revisions in the service's operating systems and procedures, for example, monitoring and evaluation, budgeting, program planning, and personnel (e.g., MDRE 1992k). A number of these are components of ongoing institutional-strengthening projects and programs at both the national and regional levels. At the DNEF, for example, the "Projet National de Lutte Contre la Désertification" (PNLCD) targets assistance in policy analysis and monitoring, program planning, and human resource development. The Swiss project in Sikasso (PADREF) has been instrumental in helping the regional office to operationalize social forestry practices through such activities as surveys of villagers development needs and priorities, and the use of survey results to plan forestry sector interventions.

Other changes are imposed on Eaux et Forêts as part of government-wide reforms of the public sector, the majority of which are driven by the conditions of Mali's structural adjustment programs with the World Bank and the International Monetary Fund (IMF). These changes include pressure to reduce staff as part of efforts to shrink the public sector wage bill, and 1991 budget reforms that mandated the elimination of the "Fonds forestier" as an account dedicated to the forest service. Funds generated by Eaux et Forêts from sale of permits and licenses and from fines must now be returned to the national treasury.

Mali's transition government undertook a dramatic, one-shot effort to improve Eaux et Forêts' operating procedures by reassigning all forest service field agents to their home village areas. This effort was designed to reduce abuse of the fining system on the assumption that agents would be less likely to engage in abusive fining of people they knew or were related to. Apart from its public relations value, opinions on the positive effects of this action are mixed.

4. **Decentralization** Eaux et Forêts uses the term, decentralization, to characterize the recent and planned changes it is in the process of undertaking to fulfill its reoriented mission. The forest service's approach to decentralization is twofold. First, it includes a further deconcentration of action to the regional and local levels. Eaux et Forêts' regional offices already operate in a relatively decentralized manner due to the presence of donor projects that target forestry in particular regions in the country, rather than the nation as a whole. Here, changes respond to a trend already underway for several years. For example, the Malian

government held a series of regional seminars on decentralization in 1989, and a national conference on the subject in May 1990 (see Hall et al 1991). The period following the coup saw additional seminars to address decentralization issues (Haidara 1992, see also Ba 1992).

The second element is devolution of forestry and NRM functions to entities external to the service: NGOs and local organizations (MDRE 1992c, see also Djibo et al 1991, Tilford and Steinberg 1991). Plans for devolution respond to the ongoing experiments with local-level NRM, involvement of NGOs, and community co-management ("gestion de terroir"), as well as to the broader climate of democratization brought about by the coup and the recent elections (see Konate 1992, World Bank 1992).

5. **Cross-sectoral collaboration** Eaux et Forêts would also like to increase the level of collaboration between forest agents and personnel of other government development agencies. Some of the personnel that Eaux et Forêts wants to work more closely with are located in the forest service's own home ministry, such as agriculture and animal husbandry ("élevage"). Others are external, such as the Malian textile parastatal (CMOT). Cross-sectoral collaboration is the farthest advanced in the Sikasso region, where joint activities have been promoted with the support of the Swiss institutional-strengthening project.

A major constraint to increasing levels of collaboration is the negative reputation of forest agents. Staff of other services complain that when forest agents accompany them to local communities, villagers are not interested in their programs, accusing them of increasing villagers' vulnerability to fines and extortion. As a result of this kind of reaction, Eaux et Forêts has had some difficulty in making greater cross-sectoral collaboration a reality.

d. Retraining of forest agents

The Malian government recognizes that the practices and attitudes of forest agents have played a major role in the failure of forestry policy to achieve either its NR protectionist or development objectives (see McLain 1991b). Eaux et Forêts' reform plans include attention to retraining of forest agents to provide them with skills and attitudes more appropriate to a technical role in local-level NRM and a participatory operating mode. As with its other reform plans, Eaux et Forêts is heavily dependent upon donor resources for implementing in-service training activities. For example, GTZ provides training as part of its contribution to the PNLCD. CARE's field projects that work with Eaux et Forêts staff include a training component, as do the Dutch government-funded projects in Ségou and Koulikoro (Djibo et al 1992).

The kinds of skills required, mentioned in both interviews and documents, include technical knowledge in forestry and agroforestry, and mastery of community development and "animation rurale" techniques. In the former category are such competencies as tree-crop interactions, multiple uses of tree species, tree forage production, indigenous species management, or integration of forests into sustainable agricultural systems (McLain 1992). In the latter, for example, fall skills in participatory rural appraisal, organization of local groups, and design and delivery of extension sessions (see Dagamaïssa 1990).

A related issue is the quality and appropriateness of the pre-service and in-service training received by forest agents. Assessments of existing training institutions to provide useful technical skills find limited capacity (McLain 1991b). Included in Eaux et Forêts' proposal for restructuring the service is a component to reform the "Centre de Formation Pratique Forestier de Tabacoro," transforming it into the "Centre de Formation et d'Appui à l'Animation pour la Gestion des Ressources Forestières" (MDRE 1992h)

e. Further local-level experimentation with participatory co-management of natural resources

Another major component of Mali's recent and planned reform efforts to improve forestry policy is ongoing testing of participatory NRM at the local-level as part of the broader rethinking of the appropriate role of the state in socioeconomic development. Under the Ministry of Rural Development and the Environment, the PNLCD monitoring unit has, since its creation in late 1989, been monitoring and assessing NRM projects, including community co-management efforts (Aw 1989). In addition, the unit has overseen the testing of community NRM in three zones (Djenne in the 5th Region, and Koutiala and Kadiolo in the 3rd) as part of design and preparation of the World Bank Natural Resource Management Project (World Bank 1992). This five-year project provides US\$20.4 million to initiate a long-term program that will enable local communities to develop, implement, and monitor village NR management plans in collaboration with the regional offices of Eaux et Forêts

Numerous experiments are taking place throughout Mali. A recent survey identified 110 projects with a focus on community-level NRM, being implemented collaboratively with NGOs (see World Bank 1992). Among these, for example, is the USAID-supported project in the Kayes-Mopti area (5th Region), implemented through CARE in collaboration with local Eaux et Forêts staff. This project is testing the use of a village self-help organization-- the Ogozana-- to manage forest resources on a contractual basis (CARE 1992e). The "Opération d'Aménagement et de Production Forestières" (OAPF), supported by grants from the French and the World Bank, has been working in the Bamako area for many years on reforestation. The OAPF has evolved toward a co-management approach for the Monts Manding Forest that gives the villages in the zone a significant degree of control over the use of forest resources (see Anderson 1990, Djibo et al 1991: 43-59).

The intent of the Malian government, and of the donors that are providing the funding and the technical assistance, is to incorporate the results of this local-level experimentation into refinement of both the ancillary legislation that will be developed to support the revised forestry and land tenure codes, and the operational details of the devolution of NRM authority from the state to local communities.⁷ A key issue is how to generalize from individual local successes in participatory NRM to a national policy framework.

2. Sources of Demand for Forestry Policy Reform

Demand for reform in forestry policy and in how it is implemented comes from a variety of sources. These constitute the stakeholders for policy reform, that is, those individuals, or groups, who perceive that their interests are or will be affected by the recent and planned reforms in Mali's forestry policy. Forestry policy stakeholders vary in several ways: the nature of their

interest in the policy, their ability to influence the reform process, the resources they can marshal to support or oppose the reforms, and their willingness to use their resources. The following are salient for forestry policy:

a Eaux et Forêts personnel

Key actors in forestry policy reform are the staff of Eaux et Forêts at all levels. Interviews revealed near unanimity on the need for reform from the Director General to local forest agents in the field. Staff are highly sensitive to the negative publicity about the forest service, and to the animosity directed toward the service by rural residents in response to past abuses. Espoused commitment to reform is clearly strong

What Eaux et Forêts personnel are actually prepared to do to act on the expressions of commitment is less clear. Some members of the "old guard" are apt to be less committed to radical change than the younger technocrats. Reforms that would lead to a significant downsizing of the service will be met with resistance on at least two grounds: ideological (abdication of government prerogative and responsibility), and practical (loss of jobs). Also likely to be opposed in practice would be an elimination of Eaux et Forêts' police function, given the opportunities for rent-seeking it offers to field agents. Because implementation of forestry policy in any form depends critically upon the actions of the designated implementing authorities, Eaux et Forêts staff have a high degree of power to influence the fate of policy reform, either through support or sabotage

b Staff of other Malian agencies

Another source of demand for reform comes from personnel in other Malian public agencies. Those that provide development services to rural populations whose programs are to some degree integrated with forestry activities have expressed dissatisfaction with collaborative arrangements with forest agents. As mentioned above, communities in some areas have rejected all types of extension services when development teams are accompanied by forest service staff. To the extent that field-level collaboration continues to be advocated, Eaux et Forêts can expect to be subjected to some pressures for pursuing reform.

Other public agencies with a stake in Eaux et Forêts' reforms are the finance ministry and the planning ministry. The former is under IMF pressure to reduce spending and increase revenues; as noted earlier, Mali's economic adjustment package mandates that the "Fonds forestier" revert to the treasury. The planning ministry has an interest in Eaux et Forêts' performance in the same way it does in all the development ministries and their affiliated units.

c. Politicians

Mali's newly elected government confronts high expectations from urban and rural dwellers alike to reshape a system that for years has failed to deliver on its promises into one that is responsive, democratic, and effective. The forest service's poor reputation in the eyes of the population has made it a highly visible symbol of the ills of the old system, and thus a target for political attention. The previous sections described the transition government's attempts to respond to

popular demand for reform by holding public hearings on the bush fire code and transferring forest police to their home areas, as well as the planned follow-up efforts of the Konare government. Because of popular pressure to demonstrate results, the new government is likely to push Eaux et Forêts to pursue policy and implementation reforms. A critical unknown, however, is what the elected members of the National Assembly will do with revised legislation. Some interviewees expressed the view that the delay in passing the revised bush fire code bodes ill for the prospects of new forestry and/or land tenure policy reform.

At the local level, elected representatives will have an interest in forestry policy reforms to the extent that their constituencies appeal to them for redress of grievances regarding fines and permits. Under the Traore regime, local party representatives on occasion intervened on behalf of peasants against forest agent abuses, and it is likely that the new democratically elected local representatives will be ready to take similar action (McLain 1992b).

d. Local populations

This group of stakeholders includes those most directly affected by past and future forestry policy. It is also the group with the most diversity. Significant variation in interests exists at the local level around natural resources, and around trees in particular. For example, transhumant pastoralists want to retain access to trees as a source of forage for their herds at specific periods of the yearly cycle (see Grayzel 1990). Peasant farmers want control over the use of trees in their fields and yards (McLain 1990b). All villagers have an interest in access to wood for construction and fuel. Other relevant distinctions in NR include original village residents versus newer arrivals, better-off villagers versus poorer, village chiefs and elders versus younger villagers, and men versus women (see Coulibaly et al 1991: 61-74, Dennison and Thomson 1992).⁸ This variety of interests leads to frequent conflict around NR access and use, a situation many observers have noted as characteristic of the basic features of NR (see McLain 1990a, Thomson and Tall 1991).

Another factor conditioning interest in forests is local people's perception of the importance of forest resources relative to other needs. For example, a PADREF study undertaken in the Sikasso region found that villagers ranked lack of access to water, health services, and education as higher priorities than forest resources degradation despite their dependence on those resources as a key element in rural production systems (Ouattara 1992a).

Besides varying interests in forest resources, local-level stakeholders have differing degrees of capacity to express demands to, and exert influence on, Eaux et Forêts and other government officials. As noted in many sources, the history of forestry policy implementation in Mali reveals that until very recently, rural residents had little leverage or recourse when faced with forest agents imposing fines for infractions of the forestry code (CILSS/LTC 1993, McLain 1992b). With the fall of the Traore regime, however, peasants have exhibited a newfound willingness to express their dissatisfaction with past practices of forest agents, and to refuse to be subjected to abusive fining. According to interview sources, because of rural residents' activism, the forestry code has for all practical purposes been suspended in much of Mali, with only limited patrolling taking place by Eaux et Forêts agents. It is clear that the forest service cannot count on a return to "business as usual." This situation illustrates that a major source of leverage currently

possessed by local NR users is non-compliance with the law, backed up by the threat of retaliation for efforts to force compliance through fining

e. Political parties

In Mali today political parties are only a nascent stakeholder in NRM. In the recent elections, most parties included an environmental plank in their platforms, reflecting popular recognition that environmental degradation is a problem. One party, the "Partie Ecologiste Pour l'Intégration" (PEI), is organized solely around environmental sustainability issues. The PEI is very small, with a membership of about 8000; many of the members are staff of the MDRE. At present, it is unlikely that political parties would be strong sources of demand for forestry policy change.

f. Private sector

Another category of stakeholders with an interest in forest resources are commercial users of trees. These include mainly small- and medium-size enterprises, such as sawmills, charcoal makers, firewood sellers, polewood sellers, and furniture makers. The major interest of these enterprises is to maintain access to forest resources at reasonable cost. To the extent that forestry policy reforms increase local control over forest resources such that communities could exclude commercial users from access to trees, private sector enterprises could be expected to resist policy change. However, indications are that local groups, in general, are unlikely to advocate the imposition of blanket exclusions of commercial NR users.

Among some Malian private sector operators, there may be an untrapped interest in building a positive public image regarding NRM. OAPF is experimenting with getting the private sector involved in environmental education by approaching the Malian company that produces PVC pipe to contribute funds for an education campaign. The company's industrial refuse is a well-recognized litter problem, and OAPF hopes to prevail upon the owner, who is a member of the Malian élite, to respond by appealing to the Islamic precept of contributing alms, as well as to the public relations notion of improving the company's environmental reputation. The intent is then to bring in other businessmen for similar contributions in a spirit of competition.

g. International Donors

Bilateral and multilateral donors have been in the past, and remain, a key source of demand for NRM policy change. NR issues are at the forefront of North-South dialogue, punctuated by the United Nations Conference on Environment and Development (UNCED), held in June 1992 in Rio de Janeiro. Among the agreements adopted at UNCED by consensus by almost 180 nations were two relating to forestry policy as part of "Agenda 21," an agreement to combat deforestation (UNCED 1992), and a statement of basic principles on the conservation and development of forests (see UNCED 1991). These international accords furnish added reinforcement to donor priority attention to forestry policy and practice in country programs worldwide. With the financial and technical resources at their command donor agencies are in a position to exert substantial amounts of leverage for reform. The Malian government's dependence on external assistance increases the power of this group of stakeholders. Eaux et

Forêts' capacity to pursue forestry reform is directly linked to the portfolio of projects and programs that the donors fund.

h. Non-governmental organizations

NGOs, both international and, increasingly, Malian, are another important set of stakeholders for forestry policy reform. The NGO community has been a prominent source of pressure on Eaux et Forêts to devolve NRM authority to the local level. In numerous localities, NGOs function as arbitrators on NRM issues between local populations and the Malian government. NGOs' leverage is enhanced by the donor resources they are able to attract and by their reputation both internationally and locally as effective alternatives to government service delivery (Otto 1991). NGOs, because of their relatively independent status, are in a privileged position to express publicly their views on the need for reform and on what the nature of reform should be. They have shown themselves to be very willing to use that position, and have been active partners in the recent seminars, conferences, and roundtables that have addressed forestry policy and other resource-related issues (see, for example, CARE 1992d, Tilford and Steinberg 1991).

III. ASSESSMENT OF MALI'S EXPERIENCE WITH FORESTRY POLICY IMPLEMENTATION

This section examines the extent to which the Malian forestry code case appears to fulfill, or not, the six characteristics associated with successful policy implementation (see Section I.C). The analysis focuses upon how each of these conditions has shaped Mali's experience in implementing forestry policy

A. Specification and Consistency of Objectives

The policy contains clear and consistent objectives, or some criteria for resolving goal conflicts.

Malian forestry policy objectives, as embodied in the current legislation derived from the 1935 decree, relate almost entirely to preserving NR, rather than managing their judicious exploitation. The legislation is based on the assumption that NR protection is the primary objective, and the majority of articles spelled out in the law detail the authority and responsibilities of the forest service to enforce protection. Thus criteria for resolving conflicts between protection and use are weighted heavily in favor of policing through the imposition of fines for infractions. The administrative "domaine" approach to defining the forest, as opposed to an ecological one, creates ambiguities and potential conflict for forestry policy implementation⁹

The Mali case illustrates a situation where over time NR legislation has become increasingly inconsistent with the needs of NR users and with the ability of the government to enforce NR protection as elaborated in the official policy. It is precisely these inconsistencies that have fueled the debate on the forestry code among Eaux et Forêts, the donors, NGOs, and local resource users. Study interviews revealed a consensus on the need to revise the code to fit more appropriately with the goal of NR sustainable use, but ongoing differences of opinion regarding what the policy objectives should be, and what form they should take

The level of specificity of policy objectives at the national level to support effectively a legal framework for the sustainable exploitation of forest resources is a key question. The variation in agro-ecological zones in Mali and the different adaptive livelihood strategies pursued by local residents make it unrealistic to seek to incorporate detailed NRM regulations for all situations within the national forest code. As noted in other NRM studies in Africa, clear and detailed objectives, by themselves, have not led to quantum leaps in efficiency and effectiveness of implementation (Brinkerhoff, Gage, and Yeager 1992). Rather, to facilitate forestry policy implementation a legal framework is required that sets broad NRM goals and provides the statutory latitude for specific local-level adaptations and community co-management arrangements.

B. Incorporation of Adequate Knowledge of Cause and Effect

The policy accurately identifies the principal factors and linkages leading to, and influencing, policy outcomes, including specification of target groups and incentives.

Mali's official forestry policy, and the 1935 colonial decree on which it is based, incorporates a theory founded on two major assumptions: a) that resource users will refrain from engaging in ecologically destructive practices in the face of financial and criminal penalties for doing so, and b) government authority through a forest police agency will serve as an effective deterrent to NR misuse by enforcement of mandated penalties. The history of Mali's experience in implementing this policy has clearly demonstrated the fallacy of these key assumptions. Thus in a strict sense, Malian forestry policy as currently expressed in the forest code fails to meet this condition for policy implementation success

However, in the context of our policy implementation definition that includes what happens "on the ground" as well as what is expressed in legislation (see Section I.B), Mali's experimentation with participatory approaches to NRM with NGOs and local associations, which became increasingly prominent throughout the Sahel in the 1980s, represents in essence a search for a better theoretical foundation for forest resource management policy and projects. This applied inquiry has not resulted in uniform agreement on the appropriate cause-and-effect linkages in NRM in the forest sector. Our interviews confirmed what numerous analyses have found, namely that there exists a wide range of views on the various factors and their relative importance that are involved in forestry policy outcomes. Much of the debate centers on the relative potential and merits of local-level NRM via self-governance versus state-guided NRM via Eaux et Forêts. This debate includes arguments over the socio-technical elements of the management of forest resources, i.e., to what degree local communities are capable of sustainable NRM.

It is important to note that changing the orientation of forestry policy from NR protection to management leads to a significant increase in the complexity of linkages relevant to NRM behaviors. Additional complexity derives from the multiple and varied interconnections among forestry policy, tenure arrangements, national/regional economic development strategies and sectoral policies (see Crowley 1991a, Hesseling and Coulibaly 1991, Fortmann and Riddell 1985). The tendency of Eaux et Forêts in the past in both policy formulation and implementation has been to emphasize the technical scope of forestry policy, yet institutional, social and economic factors are inseparable from forestry issues (e.g. Ouattara 1992b). To the extent that revised legislation allows for location-specific arrangements for NRM, Mali's significant ecological and socio-economic diversity makes the relevant linkages even more intricate.

From an implementation perspective, the increase in interdependency that results from more complex policy linkages escalates the level of difficulty involved in policy management. For example, degrees of operational freedom for institutional actors are reduced, coordination requirements increase, the knowledge base called for both broadens and deepens, and so on (see Grindle and Thomas 1991, Honadle and Cooper 1989). These demands strain existing institutional capacity and engender a need for new approaches to structuring implementation.

C. Appropriate Implementation Structures and Processes

Policy implementation is structured to maximize the probability of compliance from implementing agents and target groups. This includes assignment to capable and sympathetic agencies, supportive operating procedures, sufficient financial resources, and adequate access to supporters.

Mali's forestry policy experience demonstrates the critical contribution of organizational arrangements to policy implementation outcomes. The history of Eaux et Forêts' efforts to implement the forest code reveals a pattern of progressive bureaucratic paralysis, corruption, and declining capacity to carry out its official forest protection mandate. This deterioration accelerated as the condition of the Malian public sector worsened with the economic crisis of the 80s. The gap grew between the official rhetoric about the prerogatives and responsibilities of the state regarding forests and the reality of resource degradation throughout the country.

While the donor- and NGO-induced shift in orientation to participatory community-level NRM expanded Eaux et Forêts' mandate to encompass community development ("animation rurale") activities, the service's organizational structure and procedures, and the incentives they create, remained relatively unchanged. As a result, the grafting of the development extension branch onto the original policing tree trunk failed to "take" very strongly.

On all the elements of this implementation condition, Malian forestry policy demonstrates weak fulfillment. The government assigned primary implementation responsibility to a state entity, ignoring the imbalance between the magnitude of the task and the capacity of the agency. Historically, Eaux et Forêts staff's sympathies have lain with the policing side of the agency's mission. They are divided on the desirability of self-governing NRM strategies, and at the field level agents' training does not sufficiently prepare them for community development functions. Operating procedures for the most part encouraged, up until the 1991 coup, the pursuit of NR policing functions except where donor-funded projects offer other incentives and opportunities. Financial resources are tight, the "Fonds forestier" is a much-reduced revenue source, and fine and permit revenues are at an all-time low. In terms of links to backers, at present Eaux et Forêts' reputation is poor and public support is close to nonexistent. As the narrative in the previous section makes clear, the leadership of Eaux et Forêts, the donors, and NGOs working with local communities are well aware of most of these difficulties. The planned reforms enumerated above represent efforts to address these problems.

The GRM's expressed commitment to "la décentralisation et la responsabilisation du monde rural" offers a significant opportunity to restructure the implementation of forestry policy in the context of redefining the boundaries between the state and civil society (see ARD 1992a and 1992b, Hobgood 1992). However, institutional constraints to making decentralization a reality are significant. Historically, Eaux et Forêts has been part of the problem, because of its ingrained structural incentives to abuse the policing aspects of forestry policy and weak technical capacity to promote improved forest management. Today, Eaux et Forêts is under national and international pressure to become part of the solution. The agency cannot do this without outside assistance, as the majority of its field operations are made possible through donor support.

D. Management Capacity and Commitment

Leaders and top managers possess sufficient strategic management and political skills, and are committed to the policy objectives.

Interview and written sources frequently pointed out the shallowness of existing analytic and management capacity within Eaux et Forêts, and their dependence on external donor support to maintain operations. Flowing from its dominant policing mission, Eaux et Forêts' management skill mix favors NR regulation and enforcement functions. The more flexible, adaptive, and non-routine management behaviors required for "animation rurale" in support of community co-management of NR are in short supply.

The Malian government's historical preference for placing the state in the primary actor position for socioeconomic development has to a significant extent created a management bottleneck. If NRM remains as the exclusive purview of a central administration, then policy implementation will be strongly dependent upon the skills and capacities of public officials and agents. However, Mali's willingness to decentralize and bring the NGO and private sectors into NRM provides an opportunity to take advantage of existing local management capacity, and further, to build additional broad-based capacity.

NRM policy that provides statutory support for NR co-management calls for a different type of managerial role and skills in Eaux et Forêts from those needed to implement either the policing or community development mandate. Because a NR co-management strategy involves actions across multiple public and private settings, Eaux et Forêts managers can exercise little if any direct control. Much of what needs to be done to achieve NRM implementation success hinges upon their skills in thinking and acting politically. This means engaging in proactive bargaining, networking, and negotiation with groups both inside and outside government to influence resource allocations, actions, and attitudes. With some key exceptions, the forest service appears to lack these political skills, tending to take a more reactive stance to the external world.

Commitment is notoriously hard to assess. In interviews, Eaux et Forêts leadership expressed commitment to reform on numerous occasions, but given the lack of detail on the content of eventual reforms, it is difficult to judge exactly what the agency is committed to doing. As noted in the previous section, there is a distinct difference between the older generation of foresters and the younger staff in expressed commitment to NR co-management. Whether policy reform is being driven by the donors, with the Malian government going along to gain access to desperately needed resources remains an issue.

At the community level, local resource users' commitment to NRM policy implementation is constrained by their need to survive, and the paucity of economically viable incentives for nondestructive NR exploitation. A clearer vision of, and commitment to, reform exists among the NGOs operating at the local and regional levels, partly because participation is an integral element in their operating ethos.

E. Stakeholder Support and the Legal System

The policy receives ongoing support from constituency groups and key stakeholders within a neutral or supportive legal system.

The case reveals the presence of a strong push from numerous stakeholders for reformulating Mali's forestry policy, and for addressing the related issue of support from the legal system to make reforms viable, e.g., tenure legislation, rights of incorporation for local associations, and court reform. With the recent political changes, the ability of stakeholders to air their views in public has increased substantially, as exemplified in the bush fire code revision process and the planned replication of that process for the forest code. This new openness is a positive force for reform.

Key stakeholders in reform of the forest code are the personnel of Eaux et Forêts, which poses some serious questions for policy implementation, given the service's reputation and past practices. Interviewees noted the "old guard's" resistance to change, plus the incentives to retain what had been, until "les événements," a lucrative source of individual and organizational revenue. Yet, interviews also confirmed the presence of pro-reform forces within Eaux et Forêts, particularly in conjunction with decentralization. These groups appear open to change, though perhaps not to the extent that the NGOs and donors might deem necessary.

As mentioned above, another important group of stakeholders are the international donors and NGOs, which raises the policy "ownership" issue and related concerns about commitment. In this respect the Mali forestry policy case is typical of both economic development and NRM policy change efforts throughout the developing world where espoused country commitment tends to follow donor financial flows.

Also characteristic of developing country NRM situations, the ultimate stakeholders in forestry reform are precisely those with the weakest historical capacity to a) make effective demands on the government, and b) sacrifice short-term economic survival for long-term NRM: the Malian peasantry. Thus critical to achieving the objectives of forestry policy reform is building feedback mechanisms from local resource users to policy makers and incentive structures that support desired behaviors. Feedback and incentives are important not just from a political perspective, but also in the technical domain. Local people have crucial information about appropriate NRM adapted to their micro-environments that needs to be incorporated into ongoing policy modification.

F. Socioeconomic and Political Stability

Socioeconomic and political conditions remain sufficiently supportive and stable so that the policy is not undermined by changes in priorities, conflicts, and/or radical shifts in resource availability for implementation.

The current state of most African nations makes fulfillment of this condition problematic for any policy change (see Club du Sahel 1992). African decision makers and policy implementors in

practically all sectors must operate under near-crisis conditions where priorities and resource levels shift regularly. Conflicts between needs and available means are commonplace. Mali, and all the countries in the Sahel, face these challenges (see Annex A). Resource availability for implementation is a critical concern given Mali's dependence on external support. If donor priorities shift away from forestry, Mali's ability to follow through with implementing reform will be greatly reduced.

Our informants were unanimous in noting that Mali stands at a crossroads, with opportunities for significant change on the one hand, but facing daunting obstacles and resource scarcities on the other. The environment for reform is currently highly supportive, with the public testing its newfound rights to public expression and the government trying to satisfy popular demands while maintaining the faith and support of the army, the civil service, the IMF, World Bank, and other donors. Interviewees cautioned, however, that just as the coup that led to the democratic elections came on rapidly, unforeseen events could rapidly alter the situation. The April 1993 student demonstrations and burning of buildings in Bamako are a reminder of this fact. Maintaining political will to support measured and rational policymaking in the face of the pushes and pulls of special interests and conflicting constituencies is not easy for any government, much less a new one that is still feeling its way along the democratic path.

IV. PROSPECTS FOR SUCCESSFUL FORESTRY REFORM IMPLEMENTATION

The preceding section has analyzed Mali's forestry policy reform in terms of the opportunities for, and constraints to, successful implementation. The fact that Mali's experience with forestry policy shows some problems in meeting the six conditions should not necessarily be taken as an indication of pessimism regarding future prospects for successful forestry policy reform. Rather, the six conditions can be used as a guide to focus attention on where and how to intervene to increase the chances for successful implementation. The Mali forestry case illustrates that policy managers are, in fact, already taking some actions along the lines that our analytic framework would suggest as appropriate. This concluding section offers a synopsis of the prospects for success of the reform efforts currently underway and planned for.

The overall viability picture for Mali's current and planned forestry reform efforts results from the combined impacts of the various positive and/or negative contours of the implementation landscape. Key among these are: commitment and political will, institutional capacity and incentives, dependence on progress with other reform measures, and technical feasibility.

Across major stakeholder groups, the aggregate level of commitment and political will in support of forestry policy reform appears relatively high. It is clear that the Malian government and Eaux and Forêts do not view the current situation as business-as-usual, but rather as a high-priority concern. This felt need for change offers forestry reformers a window of opportunity for change, what Grindle and Thomas call "policy space," in which there is "room to maneuver" to accomplish reforms (1991). This policy space has been expanded by the willingness of local NR users to express their dissatisfaction with the past and their unwillingness to countenance a return to past abusive practices. The Malian government is under popular pressure to do something about resource tenure policies, including forestry, and about the practices of the forest service.

Donor agencies are another important piece of the picture here. The international attention on NR, deforestation, and the environment translates into donor program emphases and funding allocations to these sectors (UNCED 1991, 1992). The donor community is a source of both pressure and support for reform. Given Mali's budgetary constraints, the availability of donor resources give Malian reformers the wherewithal to capitalize on the room to maneuver.

Looking at institutional capacity reveals some pluses and minuses. On the positive side is the presence of traditional NRM institutional mechanisms that can be tapped in support of community co-management reforms. Their potential, however, is limited by two factors: a) the strain of dealing with a higher level of NR scarcity and conflict than in the past, and b) their history of legal "invisibility" in Mali's existing legislation. Also contributing positively to institutional capacity for forestry reform is the NGO sector, which is by now a well-recognized partner in reform implementation, particularly in support of indigenous NRM institutional mechanisms. Increasingly, Malian NGOs are entering the partnership. Other pluses include the reform-minded technocrats within Eaux et Forêts, who have a strong grasp of the relevant issues and in-depth understanding of the context.

Turning to the minuses, the operational capacity of Eaux et Forêts, like almost all of the Malian public sector, is seriously limited and highly dependent upon external resources. In practice this

means that day-to-day operations, particularly at the field level, are strongly driven by donor-funded projects (see Mukandala 1992). Further, as pointed out by numerous observers, even if Eaux et Forêts could operate at peak efficiency, the magnitude of its spatial and functional responsibilities, as currently defined, vastly exceed what the agency could effectively accomplish. Thus, central to forestry reform's viability is a realignment of the state's mandate to better fit with what Eaux et Forêts can realistically be expected to do.

This latter point raises another limiting factor on the institutional side. Public sector organizations with a long history, such as Eaux et Forêts, can be likened to ocean liners; once headed in one direction, their ability to shift their course quickly is limited. Internally, the mass of the agency's structure, standard operating procedures, and staffing patterns, set in motion by the original policy mandate, makes turning difficult. Externally, the agency's clientele develops a backlog of experience and expectations of dealing with the agency in a particular way, which also contributes to the forces of inertia to keep going as before. The Mali forestry case study illustrates clearly how the dynamics over time of the interactions between Eaux et Forêts and the rural population built an institutional incentives structure, for both forest agents and peasants, with perverse impacts on NRM.

The Malian forest service's first efforts to integrate resource utilization in concert with local communities into its NR protection mandate began over ten years ago. Today, the transition is still ongoing, with acknowledged difficulties, especially with regard to the incentives for change. Until and unless the incentives structure is modified, the viability of the intended reforms will be in question. The extent of institutional incentives for change is a critical variable in sustaining Mali's forestry policy reforms. The "bottom line" on Mali's institutional capacity for forestry policy reform is not a clear one. There look to be some very positive signs for the future, but past experience lends a cautionary note to any prognostications on sustainable change.

Moving to dependence on progress with other reform measures, it is evident that forestry policy is linked to additional policies and practices, some of which are in the process of being changed.¹⁰ Having a direct impact on Mali's forestry reforms are: land tenure reform, administrative decentralization, and political reform (democratization and increased options for popular participation). As the case study shows, all of these play a role in the viability of forestry policy reforms, particularly in terms of their potential to influence incentives.

Policies with a more indirect impact on the forestry reforms include: trade reforms (e.g., subsidies and pricing for both internal and external markets), economic adjustment measures (e.g. public sector downsizing, fiscal and financial reforms), and potential monetary reforms (e.g. delinking of the CFA franc from the French franc). More far-reaching reorientations of basic economic production modes in the Sahel will also play a role in the sustainability of reforms in the forestry sector (see, for example, N'Diaye 1993). Forestry policy managers in Eaux et Forêts are aware of these interdependencies, although their ability to influence any of these factors in their favor is highly restricted.

Several factors relating to the technical feasibility of the planned policy changes enter into an assessment of their viability. For example, success with Mali's forestry reforms will depend upon a shift from an emphasis on timber products to multiple-use management, which entails a

range of additional technical considerations: employment and consumption patterns, marketing options, integrated production systems (e.g., forest-based foods, fruits, fuelwood, fodder, mulch, and medicines). Other technical factors important for forestry policy include: the role of trees in rural incomes, livelihood strategies (e.g., sedentarism, slash-and-burn agriculture, and pastoralism), and food and energy security (see Turnham et al 1992)¹¹ Although Eaux et Forêts possesses a core cadre of sectoral specialists capable of dealing with these technical issues, and has access to additional technical resources through donor-funded projects, the average forester is ill-prepared to deal with them out in the field. Without concerted attention to improving the technical skills of field agents, the viability of reforms will be adversely affected.

The general picture suggests on balance a stance of cautious optimism regarding the prospects for Mali's forestry policy reforms. Policy managers and decision-makers have, at the espoused level, taken into account the majority of factors needed to lead to intended impacts, recognizing the uncertainties that face the Sahelian region. The political climate seems a propitious one for serious change, and the new openness to popular input is encouraging. In the immediate term, it is the institutional capacity and incentive issues that are the most likely to at minimum subvert or dilute, or in the worst case derail, the reforms. In the longer term, the overarching socioeconomic and environmental factors enter more strongly into play, making extended predictions uncertain.

In both the near- and long-term, the need for Mali's forestry policy reformers to take a strategic perspective on managing the policy change process is clear. The popular perception is that policy making is the point where politics enters in, and that implementation is more a matter of technical finetuning and routine administration. The Mali forestry policy case is a clear example of the fallacy of that perception. Policy implementation is profoundly dynamic. As actions are taken over time to carry out policy directives, the policy itself evolves. As outcomes are achieved, target groups and other actors are affected, thus the policy environment changes. A strategic management perspective looks outward at the larger setting and ahead to performance and impacts, as well as internally at the mechanics of technical content and day-to-day operations. Without the outward- and forward-looking dimensions, policy implementors are "flying blind," a surefire prescription for (at best) encountering unwelcome surprises and (at worst) suffering unanticipated calamity.

ENDNOTES

1. This section draws upon the analysis of the Malian forestry code in Elbow and Rochegude (1990). A more comprehensive treatment of the Malian (and other Sahelian) forestry texts as they have been derived from the 1935 French law can found there.
2. Articles demonstrating this control include:
 - * classification of forest (Article 20);
 - * categorization of forests (Article 2, 13, 18);
 - * commercial and private use rights (Articles 27-36, 40);
 - * protection of valuable species (Articles 37-39);
 - * permission granted by the state for limited exploitation (Articles 42-50); and
 - * state control through application of fines and imprisonment (Articles 53-64).
3. The fines and penalties for various violations are as follows:
 - * For illegally clearing land for agricultural purposes and de-branching trees illegally in the Sahel zone - fine of 50,000-150,000 francs, and/or 1 month to 5 years in jail;
 - * For illegally exploiting classified forests, cutting restricted species, and failure to obtain cutting and transportation permits - fine of 60,000-200,000 francs, and/or 1 month to 5 years in jail,
 - * For illegal forage of animals - 1,000-3,000 francs per animal, and/or 11 days to 3 months in jail;
 - * For illegally clearing protected land - 16,000-50,000 francs (with the fine doubled in a classified forest);
 - * For illegally moving forest boundaries defining a classified forest - 80,000-240,000 francs, and/or 11 days to 3 months in jail;
 - * For preventing forestry officials from carrying out their duties - 20,000-120,000 francs, and/or 11 days to 3 months in jail;
 - * For extracting soil, rocks, etc from a protected forest - 30,000-100,000 francs;
 - * Also, repeat violators are mandated to receive the maximum sentence, accomplices are given the same fine as the principal offender, and fathers are responsible for the derelict acts of their minor children (Art 74-76).

4. For an overview of the subject, see Crowley (1991b) and Ayittey (1990).
5. For more detail on the long-term impact of these economic, demographic, and land use trends on West Africa's development prospects, see AfDB and OECD (1993) and Club du Sahel (1992).
6. For a discussion of the advantages of NGOs for implementing social forestry activities, see Gregerson et al (1989: 176-185). Examples from Mali of NGO support for local-level NRM include Anderson (1990), Bocoum (1992), Djibo et al (1992), Hochet (1989), McLain (1992a), Poulton (1992), and Wedum (1992)
7. For more on the operationalization of local "gestion de terroir" see the CILSS report, Goumandakoye and Bado (1991).
8. On women's interests in forest resources and their experience with NRM in the Sahel, see Monimart (1989).
9. Conversely, it is interesting to note the high degree of specificity in the definition of the Sahelian zone as it applies to debranching trees for animal forage (Article 41), and how geographical boundaries are applied to a commonly considered agro-ecological designation:

The official southern limit of the Sahelian zone is defined by the southern limit of the Kayes "cercle", the Senegal river to Bafoulabé, to the confluence of the Bakoye and Baoulé rivers, the Baoulé river to the road at Yarangabougou, the Yarangabougou-Kolokani-Niamina-Farako-Se road and Niger river to Samé, to the Samé-Sarré-Djenné-Sofara-Bankass-Koro road to the Burkina Faso frontier
10. Forests, like all NR categories, are intimately linked to a dense web of interconnected factors. These interdependencies are strikingly illustrated in the UNCED global consensus on forest principles adopted in Rio. According to one analysis, of the 50 topics addressed in the agreement, only five deal with the internal aspects of forests (Larsen 1993). The systemic character of NR issues is also highlighted in Brinkerhoff, Gage, and Yeager (1992).
11. Further technical considerations arise from the impacts of climate change, desertification, and population demographics (see AfDB and OECD 1993).

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Annex A

Mali's Political and Economic Context: An Overview of Recent Events

by

David Miller

Mali's economic situation, like that of all the Sahelian countries, deteriorated significantly during the 1980s and into the 90s. It became increasingly clear that the state-led socialist development strategy that Mali had been pursuing was failing. Initially, the Malian government resisted reform, but faced with the need for external resources, it accepted the conditions linked with donor assistance and took some steps toward market liberalization, and reduction of government expenditures. On the political front, the fever of democratic initiatives spawned in Eastern Europe at the end of the 80s spread through West Africa and took hold in Mali. In 1991, a loose coalition of urban groups, suffering the effects of structural adjustment measures and embittered by the government's harsh tactics, rallied behind the cause of pluralist government, and brought down the regime.

The rural population, less organized, contributed little to the overthrow. However, in a series of public forums organized by the transitional government, they vented their anger and expressed their strong desire to reclaim a share of the country's government. In the 440 days of its reign, the transitional government took the essential initial steps towards establishing what is popularly called in Mali "a government of law," and set down the basic plans for more popular rule.

The transitional government also organized Mali's first multi-party election, and oversaw the inauguration of the country's Third Republic. Since being sworn in, the new government has worked diligently to shore up majority party power, but is still subject the same pressures that brought down the last regime. Despite its commitment to decentralization, the Konaré regime continues to wrestle with how to implement a real turn-over of power to the people. The government remains caught between the demands of the donors and those of the urban population; the rural population, for its part, remains unorganized and relatively unheard.

Pre-1990: Background and the Traoré Regime

Contemporary political and economic change in Mali takes place on a very stark stage. Economic productivity relies on the diversified yet extremely fragile resources of its vast, land-locked terrain. Agriculture dominates the economy, buffeted by the vagaries of both climate and international markets. The country's rapidly expanding population is primarily rural, illiterate, and poor. Per capita income falls in the range of \$200-\$300, and life expectancy at birth remains twenty years short of the world average.

The governments that attempt to address these constraints inherit a political system with limits of its own. The centralization of political authority, characteristic of French colonial rule, and reinforced by the socialist Keita regime after independence, continued during the Traoré regime. A military government the first eleven years, the presence of Traoré's non-ideological government was harsh in urban areas, but very limited in the far reaches of the countryside. In Mali, the center has determined the rules of administration, but has not had the resources to enforce them. In the rural world, the effect was to weaken existing systems of political and social regulation without replacing them. The extreme case of this situation is found in the country's far north, where the Tuareg nomads reject the state's authority, and the government has resorted to military force to exert control.

Initial steps toward Decentralization:

Despite this overall tendency towards centralization of political authority in Mali, a slender strain of government decentralization threads its way through the country's history. The principle of independent administration of local districts existed in the first post-independence constitution of the République Soudanaise, but served only to maintain the few urban communes that had already been created in the colonial period. Not until the late 1970s did the Traoré regime take the first timid steps towards administrative decentralization. In 1977, Ordinance No. 77-44/CMLN provided for the creation of local committees and councils that would guide local development investment. Although the terms of this law were far-reaching, enabling legislation and texts were not completed until 1982. The local councils have yet to be active.

As to the financial aspect of decentralization, a step taken in 1988 with the creation of the Local and Regional Development Fund (FDRL), which merged local taxes and levies. Although designed to provide local communities with a proportion of local taxes, because the funds are administered by the central government, local financial authority remains nonexistent.

While donor assistance assured the continuance of the Traoré regime during this period, external assistance also supported certain measures towards decentralization of power. Donors instigated the creation of the country's large parastatals, which created regional power bases in the technical service outside of government administration. In addition to this deconcentration of power, donor assistance was also a force behind administrative and political decentralization, and supported a national seminar on decentralized planning in Gao in 1987, which presented resolutions to activate the initiatives in the 1977 law. Perhaps seeing that some change was inevitable, the state's single party, the Union Démocratique du Peuple Malien (UDPM), quickly stepped in to direct the decentralization process, and in the late 1980s supported a series of regional seminars on decentralization culminating in the National Seminar on Decentralization May 1990 in Bamako.

Structural Adjustment

Although Traoré's steps towards decentralization were timid, Mali took large strides towards market liberalization in the 1980s. A medium-term policy adjustment program began in mid-

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1988, and agreement on a second reform framework was signed with the International Monetary Fund (IMF) in 1990. After an initial period of reluctance, the government greatly reduced its regulation of markets. Under donor pressure spearheaded by the IMF and the World Bank, Mali revised commercial and investment codes, and abolished all quantitative trade restrictions and export and import monopolies. It reformed trade taxation, and introduced a value added tax. The government also dissolved or sold most public enterprises and reduced the size of the civil service.

In addition to structural reform in the economic sector, Mali began programs for reform in education and agriculture in the 1980's. Agricultural adjustment, the Programme d'Adjustement du Secteur Agricole (PASA), restructured and liberalized the cotton, rice and cereal parastatals. Structural adjustment in the education sector concentrated on gaining control over costs, improving internal and external system efficiency, and shifting resources to primary education.

Thus, at the end of the 1980s the Government of Mali had taken significant steps towards restructuring its economy. In doing so, it had engendered hardships among the members of the vocal urban population. Perhaps most important, schools continued producing graduates, but the civil service cut back on hiring them. It was at this moment, when the internal political situation was heating up, that international backing provided by the cold war melted out from under Traore's feet.

1990: Opening Up

When the Eastern Block began to crack in the late 1980s, its ramifications for West African regimes quickly became evident. The West began proposing linking assistance to political reform. The socialist past of Mali, and its continuing relationship to the collapsing USSR, was problematic. In June 1990, France announced it would no longer support dictatorships in Africa, and charged Traoré with human rights violations. In the summer and fall initial steps towards democracy in Africa were taken. Several countries prepared national conventions, and multi-party elections were held in Benin. In Mali, Traoré committed himself to the idea of "pluralism within the UDPM [Mali's single party]," and programmed a debate on the question of "multi-partisme" for March 1991 in the National Assembly.

The government's limited commitments failed to satisfy the country's urban population, which organized and increased the pressure. In late 1990, the creation of two non-political pro-democracy associations was announced. Early attempts to organize marches resulted in very small turnouts. However, by late December the two major associations, the Alliance pour la Democratie au Mali (ADEMA) and the Congrès National d'Initiative Démocratique (CNID), organized a peaceful march of 60,000 people. An independent press was also began to emerge. Provided for by 1988 media liberalization, the newspapers successfully repelled initial government censorship attempts. One of the papers, "Les Echos," was started by the cultural organization, Jamana, presided by an ex-minister, Alpha Omar Konaré.

The series of violent protests that eventually culminated in the downfall of the regime began in December. Small riots broke out in response to an attempt by the Governor of Bamako to limit

the areas where street vendors could sell their wares. The government quickly rescinded its declaration, and the situation calmed, but the demonstration made everyone aware of the dissatisfaction in Bamako.

January to March 1991: The Coup Coalition

The new year began with the government's counter-offensive. In his state of the union speech Traoré displayed the rigid, hardline strategy he maintained until the end. The response to the government's uncompromising attitude was swift. The national worker's union, largely composed of civil servants, and an historically a staunch defender of the Traoré regime, shut Bamako down in a two-day general strike. Judges and lawyers next went on strike, followed by the well-organized students. The military was poorly equipped to break up the peaceful marches, and in the final week of January protesters were killed and widespread riots broke out. The government closed the schools and the military took over Bamako.

In March, after a month of relative calm, tension heightened as the date for the national assembly of the party approached. The UDPM held elections in mid-March, and central party members alienated the rank and file by overriding the selection of some duly chosen candidates. The pro-democracy associations called for a national congress that included organizations other than the UDPM. High level members of the party turned in their resignations.

Protest marches grew in size, and on March 22, orchestrated attacks targeted government buildings and the private homes of public officials. The military alternately chose between firing on crowds and fleeing the site of demonstrations. Military brutality eventually drew the whole population into the protests. Enormous public meetings were held at the Bourse du Travail.

On the night of March 25, the military arrested the president, and established a coordinating committee, which included representatives of the various associations. Widespread pillaging continued for several days, destroying an estimated \$30 million in industrial capacity. In the countryside, figures of government authority were attacked.

March 1991 to June 1992: The Technocratic Transition

The Traoré regime was brought down by the combined forces of unpaid, dissatisfied government workers, students whose fellowships were threatened, unemployed graduates, the urban underemployed poor, and even the unpaid soldiers. It had been largely an urban protest, and not until the very last days was the protest directed specifically at bringing down the regime. Various organizations continued pressing their claims after the coup. One of the first steps the transitional government took was to uphold the Traoré commitments to the student organizations made in the last hours of the Second Republic. Promises were quickly made to other groups. The transitional president, Amidou Toumani Touré, visited the army's barracks and promised to improve conditions, and in July granted salary increases for civil servants.

The transitional government, strongly supported by the donor community, quickly organized a number of public forums. Every sector of the population held workshops, seminars and conferences. After providing forums for hearing public concerns, the transitional government set about establishing the conditions for institutionalizing the reforms. Numerous plans and charters were drawn up before the government turned over authority to the government of the Third Republic.

The most important forum was the National Conference, which took place in July and August 1991. The televised two weeks of debate featured officials, politicians, associations, unions, organizations and rural population representatives. The rural population, for its part, accused and challenged the state administration on all levels. The conference produced a draft Constitution for the Third Republic, which provides for the empowerment of local populations, separation of powers, protection of human rights, and independence of the judiciary. The constitution focuses on the rights and responsibilities of citizens; it includes a law for municipal, legislative and presidential elections and a charter for political parties. The "Haut Conseil des Collectivités Territoriales" was created to work on planning decentralization. The conference further resolved that the military would be back in the barracks within a year.

For the rural world, the most important event after the national convention was a public hearing called the "Etats Généraux du Monde Rural," held in December 1991. This voicing of the rural public's concerns again saw the administration criticized for its abuse, particularly of the management of the local tax monies. The conference recommended that local communities be given the responsibility and right to manage their own resources, and that the government should limit its role to arbitration of conflict, planning and technical assistance.

During the transition government, The Ministry of Agriculture, Livestock and Environment developed a master plan for rural development, the "Schéma Directeur du Secteur Développement Rural." President Konaré endorsed this plan and intends to use it to guide the activities of his newly established Ministry of Rural Development and Environment. Major objectives for the rural sector identified in the plan include: increasing in the income and improve the living conditions of the population; satisfying food security needs; and protecting the environment.

The strategy included the following objectives:

- * **Disengage the state** - The state will provide indispensable services such as primary health and basic education necessary to a vital private sector.
- * **Promote the private sector** - Encourage rural organizations to develop agro-industries by: 1) listening to their problems; 2) providing training and information; and 3) granting tax and regulation benefits.
- * **Decentralize decision making** - Promote self-administration, in part by allowing and encouraging local natural resource management.
- * **Assure women's access to productive resources** such as land and credit. Promote education for girls and functional literacy.

* **Diversify and intensify production** - Reduce food imports (rice sugar and milk) and diversify into aviculture, off-season vegetables, peanuts, and milk products produced in peri-urban areas.

In March 1992, the transitional government attempted to further institutionalize its plan for reform of the technical services in the rural sector through a workshop in Selingue. The workshop's agenda was to conduct a review of the institutions of the Ministère de l'Agriculture, de l'Élevage et de l'Environnement. The workshop resolutions stressed better institutional coordination and continuity over time and across sectors. Propositions included splitting control, regulation, and police responsibilities from technical, information, and extension activities. Natural resource management activities would also be conducted independently. None of these suggested reforms took place because the transitional government went out of power before they were instituted.

June 1992 to Present: Re-entry of Party Politics

Once the legal framework for the establishment of political parties was in place, over 45 parties sprang into existence; campaign costs eventually reduced this number to nine. The two major pro-democracy organizations presented themselves as parties, and the remnants of the pre-Traoré RDA also organized. Municipal elections were held in January 1992, and demonstrated no clear domination by any single party. ADEMA gained the most municipal seats, amounting to 28 percent. In the legislative elections in February and March, ADEMA gained a clear majority (65%) of the seats. In the second round presidential run-off, ADEMA's candidate Konaré was elected. The new president quickly set about developing a coalition with the opposition parties, with whom ADEMA signed a pact defining the distribution of power among the various parties. A principal concession to the opposition was the appointment of the strongest opposition candidate to the position of Minister of Education.

Since election to office, the same problems have plagued democracy that once plagued the Mali's single party state. Commitments made during the transition went unfulfilled, causing friction with, among others, the World Bank. President Konaré warded off a general strike by the Union Nationale des Travailleurs du Mali (UNTM) by 1) committing to the improvement of the state of civil servants, 2) negotiating with striking judges, and 3) holding ongoing negotiations with the students, who continue to hold strikes and protests. It is perhaps the negotiations with the vocal students that has proven the most challenging.

The Konaré regime has yet to present a plan for decentralization. While the government says the issue is under consideration by the Interior Department, opponents suggest that the government is positioning to enable ADEMA profit from any changes that might be presented as decentralization.

Timeline of Major Events - 1958-1990

- 1958 Complete internal autonomy, member of French Community
- 1959 Mali joins Federation of Mali with Senegal
- 1960 Mali declares independence and withdraws from the French Community. Modibo Keita's socialist regime begins
- 1962 Mali withdraws from the Franc Zone
- 1968 Coup by Military Committee for National Liberation (CMLN)
- 1974 New Constitution establishes a one-party state
- 1976 Single Party UDPM created
- 1979 Moussa Traoré, sole candidate, is elected president
- 1979 Civilian government takes power
- 1980 Widespread student protests
- 1983 Government stops providing employment to all graduates, which it is producing at a rate of 2,500/year.
- 1984 Complete integration to Franc Zone
- 1990 May. National Seminar on Decentralization.

Major Events - 1991 to present

- January 6, 1991 Signature of Tamanrasset agreement with Tuareg rebels in North.
- January 22-23 Student march and riots against the government for refusing their demands for fellowships and lodging. Schools close.
- February 15 Under pressure from students, government opens schools. Boycott of schools begins.
- March 20-22 Peaceful marches by students in secondary urban centers are brutally repressed by military. One student is killed.
- March 22 General popular rioting.

March 23	Continued popular unrest against the Traoré regime. Large meetings at the Bourse de Travail. Coordinating committee calls for Traoré regime resignation.
March 23-25	Last minute negotiations by government.
March 26	Coup d'Etat. A transitional government is installed
April 27	Army marches to protest their conditions. Soldiers attack a school. Students respond by attacking police commissariats
July 16	Prime Minister announces salary increase for civil servants.
December 6	Etats-Généraux du Monde Rural
January 1992	New constitution accepted by popular referendum.
April 11	Pacte National signed.
April 26	Konaré elected first president of Third Republic.
June 8	New government inaugurated.
May 7	Signature of Pacte Social between government and UNTM averts a general strike. Government agrees to improve status of civil servants.
May 6	Judges strike for pay raise.
May 30	Etats-Généraux de la Jeunesse et l'Emploi.
June 4	Opening of trial of Traoré and 32 other accused.
June 6	Government turns responsibility for planning decentralization over to the Administration Territoriale et de la Sécurité.
June 9	Coalition agreement between majority party ADEMA and opposition parties.
July 13 - Sept. 11	National Assembly convenes.
February 14, 1993	New Civil Service salary structure announced.

Annex B

Persons Contacted

1 Forestry Code Workshop.

Burkina Faso:

Jean-Baptiste Kambou
T. Gérard Benao
Koumba Boly
Moussa Diallo
B. Francois Ido
Poko Konseiga
Daouda Ouedraogo
Moussa Ouedraogo
Séraphine Sawadogo/Kabore
Denise Yameogo

Pierre Bandre
M.S. Moussa Diallo
Félix de Valois Compaore
Dakar Djiri
Marguerite Kabore
Somanegre Nana
Kimsé Ouedraogo
Sidiki Sanogo
Ousmane Tontorogobo
Tahirou Zan

Mali:

Aly Bocoum
Lassana Coulibaly
Issouf Dembele
Amadou Kone
Bintou Nimaga
Mahamane Dedeou Toure

Belco Cisse
Abdoulaye Dagamaissa
Mahamadou Konate
Seydou N'Diaye
Raoul Pierre-Louis

Niger:

Harouna Abdoulbaki
Mariama Ali Omar
Maidaji Bagoudou
Moukaila Goumandakoye
Hassane Mamoudou

Sani Ado
Seydou Amadou
Adamou Garba
Aboubacar Issa

Senegal:

Madeleine Cisse
Kent Elbow
Amadou Mbaye Ndiaye
Awa Seck/Fakye

Ndiawar Dieng
Aly Lo
Amadou Moctar Niang

Chad:

Abakar Hunwanou
Allarabaye Nandoumabe
Idriss Yosko

Michel Nandoubamde
Gos Mbaro Ngoniri

Invited Participants and Observers:

G. Edouard Bonkougou
Sapre Laurent Millogo
Douglas Steinberg
Laval Tremblay
Rebecca McLain
Gerti Hesselring

Arnold Eglı
Barry Rands
Alfred Zongo
Ngandu Mudiayi
Alain Bertrand

CILSS representatives:

Ibrahima Camara
Michel Cales
Salif Guigma
Boubakar Ba
Marie Bibiane Compaore
Fatmata Savadogo

Abakar Haroun
Stephen Reid
Moustapha Yacouba
Malick Bayılı
Emmanuel Sanou

2 In Bamako and Kati:

Howard Anderson, Director Peace Corps
Amadou Kone, Director National, Eaux et Foret
Doug Steinberg, CARE International
Mahamane Dedeou Toure, Juriste, Eaux et Foret
Samba Soumare, Independent Research Consultant
Ute Herschel Koite, PERN-GERENAI
Niantı Ousmane Tangara Chef de Cantonnement Forestier de Kati
Macalou Awa Anoune Mare, Adjointe-Charge de l'Exploitation-Kati
John Anderson, forester, OAPF
Sy Maimouna Ba, UNDP (former Minister of Rural Development and environment)
Ibrahim Traore, first secretary, Partie Ecologiste pour l'Integration (PEI)
Jan Tuit, Directeur Regional, Association Neerlandaise d'Assistance au Developpement
Chuck Johnson, Director, USAID/Bamako
Wayne McDonald, ADO, USAID/Bamako
Larry Harms, ADO, USAID/Bamako
Abdoulaye Dagamaissa, USAID/Bamako
Raoul Pierre Louis, Advisor to National Director, Eaux et Forêts



3. In Sikasso:

Arnold Egli - Conseiller DREF/PA - DREF
Souleymane Ouattara - Sociologue
Fousseni Diakite - Forestier Rurale
Lamana Touba Fofana - Animation/Vulgarisation
Adama Samaké - Aménagement
Siaka F. Diarra - Pisciculture
Soumaila Coulibaly - chef DPV
Youssouf Konaté - d'Environnement
Boukary Barry - Economiste
Oumar Tagola - Animation/Vulgarisation
André Isenegger - Socio-Pedagogue - PA-DREF
Kareem Diabate - woodcutter and sawmill operator
Abdoulay Sogodogo - assistant woodcutter
Tidiani Coulibaly - Chef de Cantonnement de Sikasso

4. Eaux et Foret National Direction Meeting:

Yacouba Doumbia, DNEF - CTN - Forestier
Alpha Aly Maiga, DAR
Namory Traore, CTN - Forestier
Sambala Sow, CTN - Juriste
Mahamadou Konatè, CTN Forestier
Belco Cissé, CTN - Pastoraliste
Ogomaly M Djimdè, DREF - Bamako
Jean Claude Heinrich, Conseiller DG EF - Bamako
Seydou Coulibaly, Syndicat
Raoul Pierre Louis, Conseiller - DREF
Mouroucouros Niarè, Directeur OPNBB
Ousmane Sankarè, Chef Div Chasse & Parcs Nationaux/DNEF
Siratigui Traorè, Journaliste ORTM/CTN
Moriba Konè, Chef Div Pêche & Pisciculture DNEF/CTN
Abou Lamine Berthè, Directeur National Adjoint/DNEF
Akougnon Dolo, Directeur CFPF Tabakoro
Moise Keita, Div Projets & Programmes /DNEF
Salif Kanontè, Directeur OAPF