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**TOWARD DECENTRALIZED MANAGEMENT OF NATURAL
RESOURCES IN BURKINA FASO:
ACCOMPLISHMENTS, POTENTIAL AND CONSTRAINTS
SUMMARY OF CASE STUDIES AND GENERAL CONCLUSIONS**

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We also wish to thank the staff of the PADLOS project in Ouagadougou for their assistance in facilitating our access to office space and transportation during the case study exercise. If we were able to cover more than 4500 kilometers in Burkina over a period of about four weeks and do so efficiently and in relative comfort, it is because of the generous logistical support which the PADLOS project afforded our team. Finally, we wish to express our appreciation to the individuals within CILSS and PADLOS for their patience and understanding while the original case study reports were being prepared, and following that, during the translation of the *Rapport de synthese* into the present document.

THE CASE STUDIES: BACKGROUND, ORGANIZATION AND SUMMARIES¹

1. INTRODUCTION: DECENTRALIZATION IN BURKINA FASO

1.1. Overview of the objectives and conditions of decentralization.

The National Decentralization Commission (CND) has identified the strategic objectives of decentralization in Burkina Faso as follows:

- * Ensure responsible management of the national patrimony by local communities;
- * Preserve and validate cultural and natural potential;
- * Create a framework that is supportive of local initiatives (CND 1994:5).

These objectives coincide with the necessary conditions for effective decentralization which may be summarized as follows:

- * Recognize the legal status of social bodies other than the central state;
- * Acknowledge that local social bodies and communities have the right to manage their affairs through mechanisms designed by them;

¹ This is a translation of the final report from the Burkina Faso case study exercise, prepared originally in French. Every effort has been made in this translation to accurately reflect the content and perspectives of the original document. Some revisions have been made, however. These concern organization of the report and points contained in the second part of the report, dealing with analysis and recommendations. In all cases, readers are encouraged to review the four case study reports, which are currently available only in French, as well as the original *Rapport de synthese*.

* Ensure oversight by the Burkinabe government over actions of the country's territorial collectivities (CND 1995a:1).

1.2. Requirements and characteristics of the Burkinabe decentralization model.

The approach toward decentralization currently used by the CND conforms to three requirements:

- * Respect for the boundaries of civil society as it is presently structured;
- * Support for the progressive development of local social structures;
- * Ensure national cohesion and unity.

These requirements are further elaborated by six basic characteristics of the Burkinabe model of decentralization:

(1) First of all, two distinctive features of decentralization must be taken into account:

communal processes, which are essentially urban and semi-urban, and rural processes.

Relatively greater progress has been made with decentralization in urban and semi-urban areas

as is evidenced by the creation of 33 *communes de plein exercice* in Burkina Faso. The

decentralization process is preceding more slowly in rural areas of the country, and remains

largely at the stage of reflection within the CND and the CND's specially created Strategies and

Methods Unit .

(2) The second characteristic of the Burkinabe model consists of a distinction among three types

of decentralized collectivities: communes, provinces and in the case of rural areas, collectivities

for local development.

(3) Particularly with respect to rural processes, the Burkinabe decentralization model allows local-level communities to engage in the decentralization process gradually and according to their own rhythm.

(4) The fourth feature of the Burkinabe model reflects the aim of orienting future activities of local structures toward development actions. Because of this aim, the term “local development collectivities” (*collectivites locales de developpement*) is used in place of the term rural commune (*communes rurales*).

(5) The CND translates its concern for national cohesion and unity throughout the decentralization process as operating principle of working within existing administrative boundaries in the country.

(6) Finally, the Burkinabe model of decentralization is characterized by flexibility, which we see in the concern to create a framework for progressive decentralization, one which will adapt to local socioeconomic realities.

1.3. Relevance of the case studies to the decentralization process.

Decentralization in Burkina Faso will benefit from the findings and analysis of case studies such as those reported herein for three principal reasons:

(1) the decentralization process, particularly in rural areas, remains at the stage of reflection, thus the process is open to new ideas but also requires follow-up and support;

(2) learnings from the four case studies, both positive and negative, will contribute greater concreteness to current reflection and debates on decentralization;

(3) the case studies described here should provide the basis for innovative and important pilot initiatives by the CND and its partners in Burkina Faso.

2. SELECTION OF THE BURKINA CASE STUDIES

2.1. Summary of the terms of reference.

After reviewing the initial terms of reference, the team of consultants for the Burkina Faso case studies formulated five major points that oriented its subsequent work.

2.1.1. Identify the types of natural resources in question, their location and the linkages between the local resource management context and extra-local factors;

2.1.2. Identify who manages the resources, how they manage them (modes of access to, control over and use of the resources), and the impacts of resource use, be they economic, socio-cultural or physical at several levels: individual, household, local community, sub-region and region;

2.1.3. Identify how local management of natural resources has been influenced by broader changes, including policy-based, legislative/legal, economic, demographic, or institutional changes.

2.1.4. Identify local capacities for natural resource management, analyze existing capacities, and identify those capacities which are lacking or are insufficiently developed;

2.1.5. Identify key lessons from case studies and make recommendations in relation to decentralization in order to recenter and energize ongoing debates and reflection on decentralized natural resource management (occasionally referred to henceforth as NRM).

2.2. Selection of the case study sites.

Selection of the four sites in Burkina Faso was guided by a desire to include reasonably representative examples of natural resource management situations. Our choice of sites aimed to illustrate the following features of natural resource management in Burkina Faso:

2.2.1. The diversity of major natural resources used and managed by local communities for their livelihoods, including firewood resources in forested and bush areas, pastoral resources, fisheries and wildlife,² and land and water resources;

2.2.2. The diversity of organizational initiatives involved in natural resource management situations, be the source of the initiative a spontaneous community-based action or interventions by government projects, non-governmental organizations (NGOs), etc.;

2.2.3. The diversity of agroecological and socioeconomic conditions that affect the distribution and availability of productive natural resources, hence the stakes of resource management and the strategies used by local populations to manage resources;

2.2.4. Situations illustrating participation by persons and groups within social categories such as women, pastoralists and youth which are frequently marginalized in processes of natural resource management.

The resulting framework used for collection of data during the Burkina Faso case study exercise is Appendix 1.

² Following initial meetings with representatives of relevant technical services in Ouagadougou, we decided not to include an example of local wildlife resource management in the case studies despite the importance of wildlife as a resource and source of income for the government of Burkina Faso. At the time of the case studies, major changes were occurring in the organization of wildlife management and laws governing the exploitation of wildlife resources were being revised. Given the state of flux in wildlife management in Burkina at the time of the case studies and the unavailability of working regulatory texts as a point of reference, we decided not to include this important resource in the studies. Due to time constraints, we were unable to prepare, as we initially hoped, a separate note on the state of wildlife management and prospects for greater local control over wildlife exploitation (and the revenues resulting therefrom). Clearly this is an area which deserves systematic attention, particularly in light of the anticipated changes in concessionaire arrangements, due to begin in mid-CY 1996.

2.3. Characteristics of the sites.

Consideration of the factors listed above resulted in a choice of four sites offering opportunities for learning about decentralized NRM within the time frame available for the study (about one week per site).

The site locations included Beregadougou in the Comoe province in southwestern Burkina Faso (see site no. 1 on map 1 which follows) , Cassou in the Sissili province, located in the southern central part of the country (site no. 2), Malou in the Sanmatenga province in the central part of Burkina, not far the capital Ouagadougou (site no. 3) and Sourindou-Mihity in the Bahn *departement* (referred to henceforth as department) of the Yatenga province, located near the Mali border in the extreme northern central portion of the country (site no. 4). Major features of each case study site are presented in Tables 1-4 of Appendix 2.

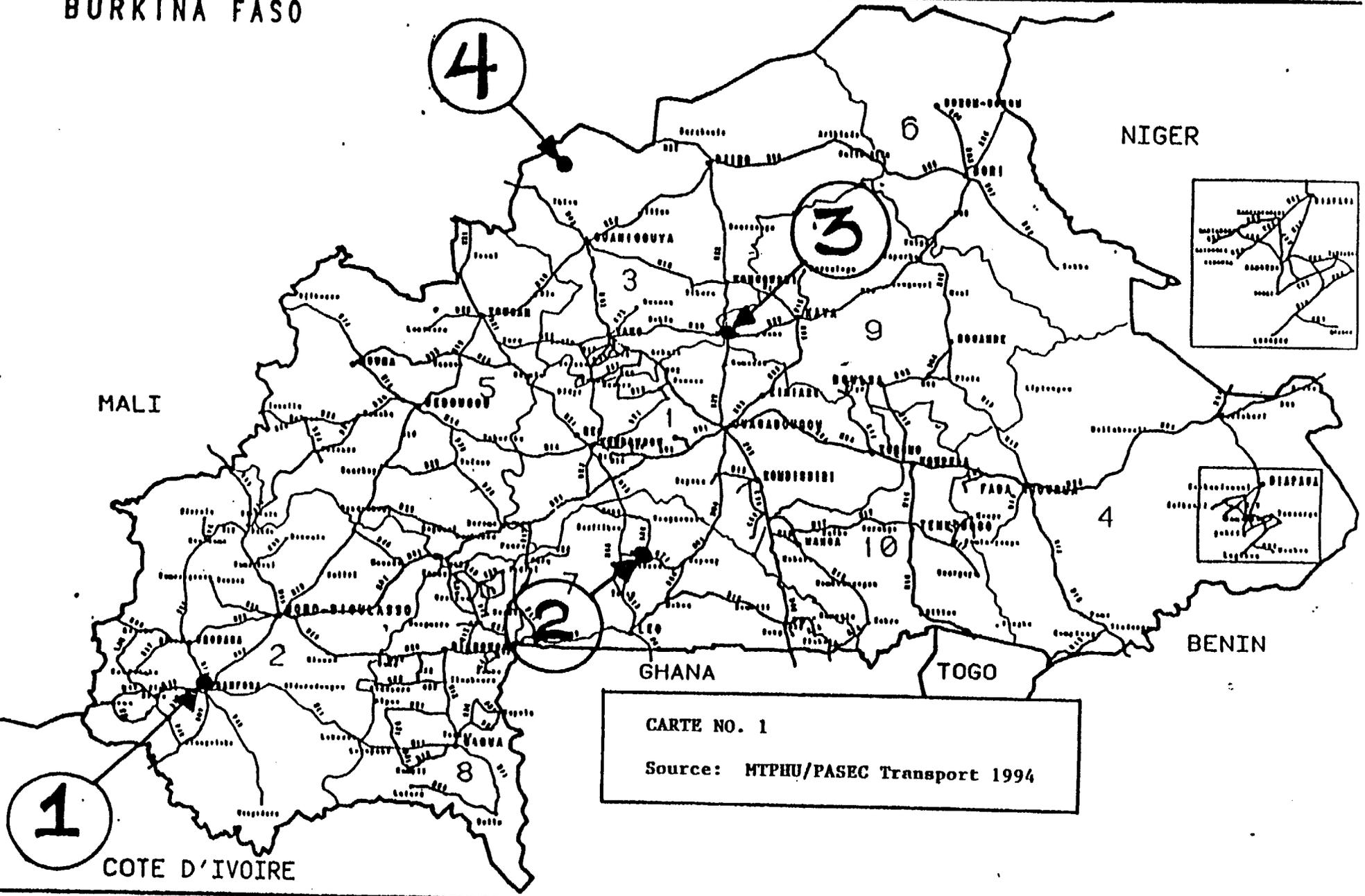
2.4. Notes on organization of the studies and availability of information.

2.4.1. Three phases of the case study exercise:

29 January to 3 February 1996: Meetings in Ouagadougou with staff of the PADLOS project and a second team of consultants which was preparing to conduct similar case studies in Mali, in order to develop a common study approach and schedule, to select the Burkina study sites, and make initial contacts.

4 February to 7 March 1996: Site visits of about one week per site in order to meet with concerned persons and organizations at village, department, provincial and regional levels.

BURKINA FASO



CARTE NO. 1
Source: MTPHU/PASEC Transport 1994

8 to 15 March 1996: Finalizing reports from the four case studies, drafting the initial version of the synthesis report, and presentation of the study results at a meeting at PADLOS headquarters on Thursday, 14 March.

2.4.2. Limited availability of information at the local level.

The team made every effort to obtain necessary information through contacts at village, department and provincial levels. Overall, we did not experience major difficulties in obtaining information of a very general nature from representatives of government technical and administrative services. On the other hand and despite concerted efforts to do so, we encountered considerable difficulty in obtaining data, particularly of a quantitative nature, concerning specific local situations of natural resource use and management.

In our view, this difficulty reflects a generalized absence of record keeping at multiple levels of action and authority. It also reflects an even more marked absence of use made by resource users and managers of these records, such as sales records (for example, at Cassou and Malou; see case study reports), production levels (for example, of fish catches at Malou), uses made of resulting income by local groups, etc.

If, for example, we were able to obtain a few figures on fish catches in 1995 and 1996 thanks to notebooks used by weighing agents from the groups of men and women involved in fisheries-based activities at Malou, data on fish catches prior to 1995 were non-existent at any level in the province.

In the same vein, no local register of firewood production exists at the production point of Cassou despite the extraordinary efforts of the men and women in the wood cutting groups that make up the Cassou site to produce firewood for sale. The few raw figures we were able to

obtain were extracted from the stubs of global sales receipts in the office of the Cassou sales agent, located in Sala.

In general, basic data and information having a potential value for organizational and planning purposes, are not to be found. While not surprising, this lack of information poses a major challenge to any effort to capitalize on and promote local-level experiences with decentralized management of natural resources. This is particularly true of efforts to discern the local-level impacts of different forms of NRM. The absence of and non-utilization of even the most basic information also reveals significant and widespread weaknesses in the area of local organizational capacity.

2.5. Organization of the report.

The present report and the accompanying four case study reports (available in French only) have been prepared as resources for promoting and recentering current reflection and debate on decentralized natural resource management in Burkina Faso. With this objective in mind, the report is organized according to a format which links a series of observations based on analysis of case study materials with several possible options for future action by policy makers, members of rural communities and by other national, multilateral and bilateral development and applied research organizations and NGOs in Burkina Faso.

3. SUMMARIES OF THE CASE STUDIES

In the sections that follow, we summarize the contexts, the analysis of most significant points and major lessons learned from each of the case studies.

3.1. PROTECTING RIVERBANKS ALONG THE BEREGA AND YANNON RIVERS:

AN INITIATIVE BY THE BEREGADUGOU AGRICULTURAL

COOPERATIVE SOCIETY (SOCABE),

BEREGADOUGOU DEPARTMENT, COMOE PROVINCE

3.1.1. Summary of the SOCABE case.

Located in the south-sudanian zone, Berekadougou and the Comoe province are relatively privileged areas (see site no.1, map 1). They benefit from some of the highest rainfall levels in Burkina Faso, the soils are relatively fertile by Burkina standards. The province contains an important river system, composed of the Comoe, its tributaries and several large dams and the area is crisscrossed by several major national and international highways. The Kaya/Ouagadougou-Abidjan railway also runs through the province. The Comoe province lends itself to a wide range of agropastoral activities and to livelihoods based on fishing and natural resource-based artisanal pursuits.

The relatively rich natural resource endowment has made the Comoe province a major destination area for settlers from many parts of Burkina Faso, particularly the Mossi Plateau area. As a result the natural resource base of the Comoe is subject to increasing pressures by users, a situation which renders difficult the task of rational resource management by long-time resident populations. Alongside this multitude of small and medium-sized agropastoral production units, the Societe sucriere de la Comoe (SOSUCO) operates the largest (and only) sugar factory in the country, resulting in appropriation by the state of immense parcels of good

agricultural land in the area around Beregadougou. SOSUCO alone consumes some 80% of the water retained by several large dams built in the Comoe river basin.

In the early 1970s, several young men from around Beregadougou who were also employees of SOSUCO took a hard look at the negative impacts on local agricultural production of increasing numbers of the area's young men giving up agriculture for salaried jobs at the sugar factory. This group decided to organize themselves into a cooperative, the Beregadougou Agricultural Cooperative Society (SOCABE) and devoted themselves to more actively promoting the virtues of agriculture, particularly small-scale irrigated agriculture and fruit production, among their peers as a viable livelihood. They also noted the negative impacts of increased user pressures on the natural resource base for agriculture. They and older local residents witnessed the decline and drying up of springs around Beregadougou, the disappearance of gallery forests, particularly in the river valley areas, and serious silting and drying up of water courses within the Comoe river system.

Beginning in the early 1980s, SOCABE members promoted improved natural resource management in river basin areas with a view toward slowing or stopping the degradation of the area's water courses. They promoted alley cropping as a means of protecting the area's riverbank areas from erosion and the negative downstream effects we have already noted. This offered the area's agriculturalists an option for income-generating agriculture based on a more sustainable exploitation of the natural resource base. In 1992, SOCABE's spontaneous actions for the protection and restoration of riverbank areas was formalized and expanded through financing from the United Nations Development Programme (henceforth referred to as UNDP)

through its Africa 2000 network and organization of the local project for the “Production of plants and the protection of the Berega and Yannon river banks.”

The project disseminated information and engaged in awareness-raising activities among communities in the Berega and Yannon river valley areas, and sponsored tree planting and the delimitation of non-cultivation areas along the riverbanks. A local project follow-up committee was formed, contributing to a more active partnership process. The project functioned for only a year before its activities were suspended, due largely to poor financial management within SOCABE. Currently the prospects for a continuation of the valuable work initiated by the members of SOCABE reside in activities undertaken by the Austrian-funded Natural Resource Management Support Project (GERN). Nevertheless, several questions concerning local organizational capacity, initially raised by the first project crisis, persist. These concern local capacity to take over and sustain activities of this kind and to develop a solid partnership that includes a range of natural resource users broader than that included in the first project.

3.1.2. Principal lessons from the SOCABE case study.

The SOCABE experience provides us with several lessons regarding the potential and constraints of decentralized management of natural resources:

3.1.2.1. A local organization can undertake effective actions in the area of decentralized NRM, but these actions may be encounter constraints, particularly when they are not adequately supported.

3.1.2.2. While it is feasible to create a local organizational structure for improved management of key natural resources such as riverbank areas, the structure should not depend excessively on external sources of financing, energy and motivation.

3.1.2.3. It is possible to create organizational structures having a broader mandate for management of natural resources in response to the expressed interest, needs and concerns of a wide range of resource users. The example from the Bregadougou/Comoe experience, which is detailed in the case study report, is the Provincial Committee for management of waters from the Comoe river and its tributaries. The committee's existence shows that such organizational forms are possible, but delays in obtaining official government recognition for the committee as a decision-making body points to the difficulties and challenges of creating innovative structures for natural resource management in Burkina Faso.

3.1.2.4. It is essential to ensure official recognition of innovative (and existing community-based; cf. Sourindou-Mihity, case study no. 4) organizational structures for natural resource management and to ensure mechanisms for their articulation with official bodies at different levels (for example, local and provincial).

3.1.2.5. An actor on the local natural resource management scene as important as SOSUCO can play an active and positive role in the management of water resources if this management role is situated within the framework of an organizational structure that represents a wider range of water users.

3.1.2.6. As a large consumer of water and land resources in the Bregadougou and Banfora areas and as a key actor in Burkina Faso's agro-industrial development, SOSUCO should play a much more active role in promoting the equitable and sustainable use of the area's natural resources. In addition, SOSUCO should play a much more active role in protecting and preserving the natural environment in the region in light of the negative local environmental impacts of its commercial operations (see case study report for details).

3.2. ORGANIZING LOCAL FORESTRY MANAGEMENT AT CASSOU, CASSOU DEPARTMENT, SISSILI PROVINCE

3.2.1. Summary of the Cassou case.

The village of Cassou and site of the operations center for the Cassou wood production site (*chantier*, referred henceforth as Cassou site, or site) is located in the Sissili province in southern central Burkina Faso (see site no.2, map1). The province covers a surface area of 13,736 km² of which 71% is agriculturally useful, 9% is wooded and 20% is considered non-arable. The population of about 313,719 persons (1993 figures) is spread out over thirteen departments and 354 villages. The climate is sudano-sahelian in the north of the province and sudano-guinean in the south.

A large and sparsely populated area in which indigenous Gurunsi comprised the majority prior to the mid-1970s, the Sissili province has undergone significant settlement by outsiders, particularly from the Mossi Plateau. The local Gurunsi became a minority population around 1985; currently, Mossi inhabitants comprise 57% of the provincial population. This rapid colonization process has contributed to an annual population growth rate in the province of 5% in 1990 considerably higher than the national average of 3.5% per year.

The province's agricultural production includes diverse crops among which cereals (sorghum, mais and millet) predominate, covering 78% of cultivated areas in 1995-96. The Sissili province also contains large forested areas of about 121,000 ha.

Hardly twenty years ago, the value of firewood from the province's forested areas consisted of its usefulness for local household consumption. Beginning in the late 1980s,

however, mounting demand for firewood in a large area, including the Sissili province, surrounding the rapidly growing capital of Ouagadougou, has given the area's firewood a significant exchange value. The increasingly frequent arrivals in the forested areas long-managed by villagers for their own use, of large firewood trucks owned by wood wholesalers/transporters in Ouagadougou led Cassou villagers to organize themselves into a local surveillance committee in 1989.

Shortly thereafter, in June 1990, the project for the Improvement of Natural Forests for Environmental Protection and Firewood Production (henceforth referred to as the BKF project, in conformity with local usage and based on the UNDP project number) arrived in the Cassou area. Organization of activities at the Cassou site was part of a gradual expansion by the BKF project in the Sissili and a neighboring province having significant forested areas. The project has two objectives: (1) organize the sustainable and profitable exploitation of firewood species in local forest areas by area populations; and (2) supply the city of Ouagadougou with firewood. The project began by creating Forestry Management Groups (GGFs) in each project zone village. Twenty-four GGF currently function in the Cassou site area.

The Cassou site covers 29,515 hectares divided into nine forest improvement units, each of which includes 15 parcels. The number of parcels corresponds to the 15 year rotation cycle set up for each unit within the Cassou site and elsewhere within the larger BKF area of operations. The GGF Union (UGGF) includes all GGF's in the Cassou site area. The GGFs sell firewood from their parcels to wholesaler/transporters from Ouagadougou for 1610 CFA francs per stère (one cubic meter of wood). The sales price was set in 1985 and has not changed since. Revenue from the sale of every stère of wood is divided four ways: 610 francs go the wood

cutters in the GGFs as earnings; 200 francs are paid into a revolving fund that each GGF manages; 500 francs are applied toward an “improvement fund (*fonds d'aménagement*) which pays for ongoing operations expenses of the Cassou site (details follow); and 300 francs are paid to the state as a forestry tax (wood cutting tax).

The total GGF income resulting from firewood sales is significant, varying from eleven to twenty-two million CFA francs per year during the period from 1990 to 1995. It is noteworthy, however, that due to the high retail price of firewood in Ouagadougou, gross revenues of wood wholesalers/transporters for the same period of time may have been as much as ten times higher than GGF earnings (see Cassou case study report Appendix 1).

The GGF members use their personal earnings from wood sales to purchase agricultural tools, bicycles and for housing improvements. Women in the GGFs purchase clothing, cooking utensils, school supplies for their children, and small livestock. The GGFs' revolving funds are used mostly to finance the construction or improvement of social infrastructure (primary schools, village water tanks and occasionally some piping to village stand pipes, etc.).

Members of the 24 GGFs included in the Cassou site area cut and sell firewood and manage the revolving funds. The development of forestry-related technical skills by GGF members due to project operations and training is commendable. In contrast, GGF members appear not to have made much progress during six years of project operations in developing organizational skills and capacity necessary for the implementation and effective post-project operation of a commercial enterprise based on the exploitation of firewood species.

The two components of such an enterprise--wood production and firewood sales--are present in Cassou, and certainly the GGF members (and firewood buyers) benefit from the

process. But much of the organizational initiative appears to be controlled by other actors. It is controlled to a degree by the BKF project technical assistance team at the Cassou site (which is paid for by firewood revenues through the site's improvement fund). It is also controlled by actors at some distance from day-to-day operations--at the level of the regional and central levels of the Environment service or BKF project administration, located in Koudougou and Ouagadougou respectively. After a period of six years, the Cassou GGF members have not yet developed an entrepreneurial approach to NRM despite the considerable potential for creating an enterprise-like organization based on profitable and sustainable exploitation of firewood species.

If the BKF project has improved local technical capacity for exploitation of firewood species, the development of organizational autonomy for the Cassou site and the constituent GGFs has a long way to go. In our view, the prospects for genuine local organizational autonomy based on this form of NRM are far from certain.

3.2.2. Principal lessons from the Cassou case study.

3.2.2.1. The exploitation of firewood resources by local populations can be a profitable activity and an important motivating factor for participating communities.

3.2.2.2. Local acquisition and mastery of various techniques for maintenance of improved forest parcels and firewood cutting is feasible.

3.2.2.3. Implementation of the BFK model of forestry management at Cassou was extremely centralized, involving very little contact with other potential partners (for example, local pastoralists) in a potentially broader based, sustainable initiative. As a result, the Cassou GGFs will have a difficult time finding sources of local support for their efforts once outside funding,

technical and organizational assistance have ended. In fact, external financial support for Cassou site activities has terminated (see case study report).

3.2.2.4. Success with creating local organizational structures for the production and sales of firewood, however important and laudable, must not be confused with the successful creation of a potentially autonomous and sustainable NRM-based local enterprise. The former exists at Cassou; the status of the latter is dubious under current conditions.

3.2.2.5. For the establishment of a sustainable enterprise of the kind referred to in point no. 3.2.2.4 above, it is necessary from the very beginning (i.e. the feasibility and analysis phases) to explore and support the possibilities for a broader range of economic activities, sometimes linked with the primary activity (as spin-offs, “upstream” and “downstream” activities, etc), in order to avoid an overly heavy dependence on the narrowly focused actions such as firewood production and sales.

3.2.2.6. There is a critical need at the Cassou site for large investment in all-weather roads at the site. The GGF members are worried about the ability of the current improvement funds (the *fonds d'aménagement*, fed by a portion of firewood sales revenues) to cover these costs.

Without functional access roads, particularly during the rainy season months, firewood buyers cannot reach GGF stocks of wood and GGF members cannot sell their wood. The recurrent need for infrastructural investment requires that the GGF have access to some mechanism that promotes capital accumulation.

3.2.2.7. The process of improving local capacity for profitable and sustainable natural resource management should include a specific focus on the development of local organizational capacity.

Local capacities must be developed in management and planning, and in the on-the-spot analysis and subsequent appropriate adjustment of key organizational processes.

3.2.2.8. The organization of local activities with a view toward eventual self-management must be done with the active participation of local actors. In the specific case of organizing the firewood sales process, it is essential to have full local input and a flexible approach to deciding on firewood sales prices and the distribution of sales income. Currently the Cassou GGFs have little if any voice in this process, particularly when it comes to setting firewood prices.

3.3. EXPLOITATION OF FISHERIES RESOURCES BY LOCAL GROUPS IN MALOU, MANE DEPARTMENT, SANMATENGA PROVINCE

3.3.1. Summary of the Malou case.

The Sanmatenga province is a zone where most inhabitants pursue agro-pastoral livelihoods, however the natural resource endowment which forms the productive base for agriculture is particularly limited. Nearly half of the land in the province consists of shallow soils having an agricultural potential varying from weak to none. The climatic regime is transitional, ranging from sahelian in the north to sudanian in the south of the province.

The provincial population numbered 439,541 in 1995 with an annual growth rate of 1.5%. The Mossi ethnic group accounts for most (84%) of the population followed by Peul (5%) and other groups. The Mane department covers an area of 742 km², includes a population of 38,608 distributed among 44 villages and towns, and an average population density of 42 inhabitants/km² (1985).

The Mane department, like the Sanmatenga province of which it is a part, is not rich in cultivable land areas. Nevertheless, the department does contain two significant types of natural resources. The first of these is the Yabo classified forest. It consists of woody and bush savanna species and covers 1,585 hectares. The second resource is the large body of water named Razinga, which is located just north-east of the Yabo forest area. The Razinga lake dates from 1985 when a large bridge and dam were constructed on the Nakabe river at the point where it is crossed by the dirt road RN20, connecting the provincial seat of Kaya with Yako to the west.

The Razinga stretches over a distance of nearly 15 kms, contains nearly 200,000m³ of water and is one of the most important bodies of water in the department.

Both the Yabo forest and the Razinga are under increasing pressure from a range of users.

These include professional and non-professional, resident and itinerant fisherfolk, agriculturalists (whose production varies from rainfed subsistence agriculture to commercial irrigated production for export), groups of resident and transhumant pastoralists and their livestock, and finally, commercial wood cutters who have nearly exhausted the forest's dead wood stocks and who now wish to exploit the forest's green wood resources.

The Yabo forest zone includes two enclaves: the village of Malou (pop. 161) and Yabo (pop. 62; see site no.3, map 1). The village of Malou is strategically located. First of all, it is very close to the natural resources contained in and around the nearby Razinga lake and the Yabo forest. Secondly, Malou is located at the intersection of two important roads: one, north-south, linking Ouagadougou and Djibo; the other, east-west, linking Kaya and Yako .

Fishermen on the Razinga come from the two enclave settlements, from elsewhere in the province and Burkina, and from Mali and Niger. Fish catches on the Razinga can be significant, particularly during peak season, but can also vary considerably, depending on rainfall and river flow into the Razinga. Some 25,000 kgs of fish were caught in 1990, 53,744 kgs were caught during the four month period from September to December 1994 (an exceptionally good year), while the catch dropped to 13,854 for 1995 (a year of very poor rainfall).

Fishing is a profitable business. Gross sales receipts totaled 16,132,080 CFA francs (nearly \$33,000 based on an average 1995 exchange rate of 500 CFA francs per \$) during the peak season in 1994, but dropped to 4,156,050 francs (\$8,300) for the entire year of 1995. The fresh fish catch is sold next to the bridge when large numbers of fisherfolk and sellers set up operations during the peak season months, and large quantities of fish are transported to Ouagadougou, typically by women who come from Ouaga with ice-filled coolers.

Several women from Malou purchase some of the catch during the peak season and nearly all of the catch during the rest of the year. They sell the fish fried or smoked to large numbers of passers-by who stop at the Malou crossroads. Some buyers purchase large quantities for resale in Ouagadougou. We could not locate recorded data on the sales of fried and smoked fish by the women in Malou and the women would not provide us with estimates of their sales income. They did assure us, however, that fried fish sales at the Malou crossroads is a very profitable enterprise.

A consideration of Malou's location on this major crossroads and near the Razinga, the strong demand for fresh and fried fish in Ouagadougou, Kaya and other towns in the region, and current plans to pave the highway segment linking Ouagadougou with Djibo via Malou leads us

to believe that that the prospects are excellent for the growth of income-generating activities linked to the exploitation of the Razinga's fish resources. Significant benefits are in store for those who rationally exploit the Razinga's resources, but the capacity of the groups of fishermen and fish retailers in Malou to capitalize on this potential is not certain.

Our doubts concerning this are based on a consideration of (a) the current context of natural resource use in the zone, which is characterized by an increasing number of users in the absence of a local initiative to deal with increasing user pressures, and (b) the limited capacity of the existing groups of fishermen and women involved in selling fried fish to organize themselves for better access to, control over and use of the Razinga's fisheries resources.

The existing groups of fisherman and fried fish sellers at Malou, both of which have the non-autonomous legal status of "pre-cooperative" in Burkina Faso, comprise the basic elements of a potentially integrated enterprise based on the exploitation of fish resources. In spite of the significant potential for the development of a local enterprise, commitment of group members appears limited. First, both groups were created at the instigation of the local forestry service a few years ago. Since that time the groups appear to remain heavily dependent on the forestry service for initiatives to improve their situation. Second, the groups seem rather passive regarding the opportunities (and the requirements) for organizing an effective fish-resource based enterprise. Third, the groups do not systematically use the money in their respective revolving funds (both of which are based on fish sales) for investments to promote the productivity of their respective activities. Fourth, for future development, both groups will need access to some form of credit, but neither seems to have many ideas about how to obtain the credit they need.

3.3.2. Principal lessons from the Malou case study.

3.3.2.1. The activities of the fishermen and the women who fry and resale fish in Malou represent the beginnings of an articulated, potentially more integrated enterprise based on the existing components of fish production/sales and fish frying/resale.

3.3.2.2. Success by the two groups since 1995 with the recording of basic information on fish weights at the Malou sales point illustrates the potential for local information collection and management of activities based on the fisheries resources. A related lesson is that raw data such as this must be exploited by local groups (in terms of equivalent sales figures, etc.) relative to some objective(s) if it is to become a component of a local management process. Currently these locally collected figures appear to provide the basis for forestry service reports and are not used by either group.

3.3.2.3. The omnipotence of the local forestry service, the guarantor and executive of natural resource management initiatives regarding the Yabo forest and the Razinga lake, appears to be stifling capacity development among the two groups at Malou for planning, decision-making and action.

3.3.3.4. Local organizations such as the fishermen and the fried fish sellers at Malou need to be more proactive with innovative or problem-solving initiatives, and with the promotion of their respective economic activities.

3.3.3.5. To be more effective in its support of such local initiatives, government technical services having responsibility for promoting rural organizations must pay greater attention to the real needs of community-based groups. This applies to training and providing field-based follow-up and support to nascent groups.

3.3.3.6. The continuing narrow sectorial focus of government technical services in the Malou area and the lack of horizontal linkages and collaboration among them do not encourage the development of a coordinated and global approach toward sustainable management of resources in an area such as Yabo which are subject to a multiplicity of user pressures.

3.3.3.7. A technical intervention such as the construction of a bridge/dam on the Nakabe river can have significant unanticipated negative impacts on the livelihood strategies of local populations. In the case of the resultant Razinga lake, the unexpected impacts include increasing numbers of itinerant fishermen, large influxes of livestock seeking water, leading to serious erosion problems along the banks. Other unforeseen problems include blockage due to the bridge's dam component of fish movement between upstream and downstream locations, leading to a depletion of fish stocks in the Razinga.

3.4. LOCAL MANAGEMENT OF PASTORAL RESOURCES:

THE HERDER'S GROUP *WALDE KAWRAL PULAaku* (WKP) OF THE SOURINDOU-MIHITY PASTORALIST COMMUNITIES, BANH DEPARTMENT, YATENGA PROVINCE

3.4.1. Summary of the WKP case.

The Banh department is located in the extreme north of the Yatenga province (see site no. 4, map 1), having a northern limit that coincides with the Burkina-Mali border. The department covers some 1,500 km² and numbers a population of 15,000 distributed among 18 villages and several pastoral camps. The Peul and Rimaibe ethnic groups constitute the majority of the population. A major productive activity in the department is livestock-based, including the

raising of cattle and small ruminants, both of which are key means of production for pastoralist groups. This is the principal activity of the Peul in the department who most often live in camps scattered throughout the sparsely populated area.

The Rimaibe, which were formerly considered and treated by the Peul as captives, live in most of the department's sedentary village communities where they cultivate millet, increasingly associated with small ruminant husbandry. Mossi and Dogon complete the ethnic picture of the department. They are agriculturalists and together constitute a small part of the total population. The climatic regime is south sudanian with annual rainfall ranging from 550-600 mm.

The borders of the Banh department and the Banh canton coincide to a great degree. The Banh canton also corresponds to a large and long-standing spatial unit of pastoral resources--the *foy*--which contain pasturage, forage and water points used by the department's pastoralists and which, according to custom, is administered by the Peul chieftancy at Banh.

The pastoralist community of Sourindou-Mihity is a unit within the larger *foy* which comprises eight Peul camps and two Rimaibe villages. The *foy* contains an important ensemble natural resources, the Sourindou-Mihity basin, which is much prized by pastoral groups. The basin covers about 20,000 ha and is created by the yearly northwesterly flow of the Nimbarou, the largest seasonal water course in the area. This water course and the rich and varied vegetative formations sustained by its waters have been classified by the International Union for the Conservation of Nature (IUCN) as one of the most important wooded flood plain areas in West Africa.

Aside from the wide range of pastoral resources and forest products (medicinal plants, honey, etc.), that are exploited by the area's pastoralists the relatively rich soils in the area of the Sourindou-Mihity basin are coveted by Mossi agriculturalists. In fact, Mossi settlers have been gradually moving northward into the Banh department from densely populated areas of central Yatenga in search of new areas to clear and cultivate, and are settling in areas near the southern extreme of the *foy*.

The Peul pastoralists of Banh and the *foy* have become adept at managing their pastoral territories since arriving in the area more than a century ago. The Peul system of pastoral resource management has long operated under the authority and watchful eye of the *sudu baba*, the general assembly of Peul pastoralists, and it functioned well until the mid-1980s. At this point in the region's history, two events profoundly disturbed traditional patterns of natural resource.

The first event was the severe drought of 1984. This was a catastrophe for many pastoralists in Banh. Most of them attempted to flee the drought and took their animals further south into the Sourou valley area. Sadly, most of the pastoralists who left the *foy* saw their herds decimated in the Sourou area due to livestock diseases. The few Peul who stayed in the *foy* despite the severe hardships caused by the drought were able to survive--and prosper to a degree--thanks to the varied natural resources available in the Sourindou-Mihity basin area.

The second event to negatively affect the pastoralist communities in Banh during 1984 was the promulgation by the Burkinabe government of a new set of laws, reorganizing tenure throughout the country. This was the RAF (La Reorganisation agraire et fonciere). According to the RAF, the Burkinabe state was the sole owner of all lands and natural resources in the

country. In addition, the policies of the Democratic and Popular Revolution government at the time gave pride of place to the organization throughout the country of Committees for the Defense of the Revolution (CDRs) and along with this, endeavored to marginalize if not eliminate the authority and power of long-standing traditional chieftancies across the country. Following what appears to be a (willfully) distorted interpretation of the RAF's new provisions, particularly by Mossi agriculturalists from the densely populated central parts of the Yatenga province south of the *foy*, large sections of the *foy*'s uncultivated areas were cleared for cultivation.

These events during the mid-1980s conspired to create a major threat to pastoral resources and pastoralist survival in Banh. Due to the weakening of their traditional systems for natural resource management and increasing pressures on their natural resource space from agriculturalists moving northward, Banh's pastoralists found themselves in a situation where they were losing their ability to manage their agro-pastoral resources.

The situation began to improve in the early 1990s due to a supportive framework introduced by the Northern Yatenga staple food crop project (the *Projet Vivrier Nord-Yatenga*, henceforth the PVNY). This was facilitated by financial support for technical assistance by a team based in Banh from the National Institute of Agricultural Studies and Research (the *Institut d'Etudes et de Recherches Agricoles*, henceforth INERA). With assistance from the INERA team based in Banh, the pastoralist communities of Sourindou-Mihity created a formal grouping (*groupement*) named *Walde Kawral Pulaku* (WKP) with the aim of improving the management of pastoral and forest resources in the *foy*. The organization of the WKP and its natural

resource management system are based on the earlier forms of Peul NRM that had been seriously weakened by the Burkina state during the turbulent 1980s.

In a manner similar to earlier forms of NRM, WKP's role is to ensure that rules of good conduct are elaborated, widely disseminated and observed by all users of the forest and pastoral resources in the basin area. The management and policing actions initiated by WKP are conducted with the full approval of the Canton chief and the Prefet of the Banh department. In 1993 WKP formally documented their proposal for specific oversight and management roles and responsibilities in relation to pastoral resources along with a set of procedures and internal rules for the group. At this time WKP also submitted a formal request that the forested areas around the basin be officially classified as a "village forest." Such a reclassification would give WKP greater management authority over the forest resources. The WKP submitted its dossier to the Director of the Regional Environment service in Ouahigouya, the administrative center of Yatenga province.

As of March 1996 there had been no follow-up of the WKP dossiers by the government administration. The activities undertaken by the INERA team at Banh within the PVNY project came to a stop in May 1994, at the end of INERA's contract. In August 1995 the High Commissioner of Yatenga province officially recognized the WKP and accorded it the status of pre-cooperative (cf. groups at Malou, described earlier). This was a positive step. Nevertheless, the status of WKP's request for a village forest classification remains unknown. Appropriate authorities at the provincial level knew hardly anything about the WKP dossier at the time the CILSS consultants visited Ouahigouya in March 1996, and even more troubling, nobody at the provincial level was able to find the WKP dossier.

3.4.2. Principal lessons from the WKP case study.

We can cluster the lessons from the case study of the Sourindou-Mihity pastoralist community in Banh according to two major themes: (1) past actions and organizational modes and the importance of valorizing the concrete, lived experience of pastoralists; and (2) the importance of assuring that all actions relative to decentralized management of productive natural resources provide support for livelihood strategies as practiced by local populations.

3.4.2.1. Concerning the importance of recognizing the past experiences of pastoral communities.

3.4.2.1.1. Traditional structures for conflict resolution and social control such as the Peuls' *sudu baba* offer some very promising possibilities as the basis for, as elements of, or as a framework for actions to promote the decentralized management of natural resources. What is more, the functioning of these traditional structures can inspire actions for improved natural resource management. It is noteworthy that community-based organizational structures (*Ogokana*) having similar functions exist among the Dogon of the Koro region of Mali, adjacent to the Banh department in Burkina (see Painter 1994).

3.4.2.1.2. Communities in which there exists a developed and broadly shared consciousness concerning the importance of natural resources to community livelihoods may be more motivated to make the extra effort necessary for improved natural resource management and their protection from external incursions.

3.4.2.1.3. There exist multiple opportunities for local populations, possibly in some form of partnership with other local groups or external actors, to adapt community based traditional organizational structures in order to ensure the protection and the rational exploitation of key natural resources. These opportunities deserve careful analysis in terms of the strengths and

weaknesses of existing community-based structures, and should be addressed in all systematic reflection within the framework of decentralized natural resource management.

3.4.2.1.4. One very important aspect of the WKP accomplishments consists of having succeeded in elaborating a formalized “local forest users’ code” (the WKP’s rules of good conduct) on the basis of a pre-existing local regime for regulating access to and use of pastoral resources. The important advantage of developing user codes of conduct in this manner results from the solid social anchoring of the new system and its conformity with community social norms and values which are widely understood and perceived as legitimate.

3.4.2.2. Concerning support for pastoralists’ livelihood strategies.

3.4.2.2.1. Local organizational structures for decentralized NRM that are organized around functions that are clearly linked to the activities, priorities and livelihood strategies of local users have a greater chance of being effective and being accepted by members. Typically, the creation of local structures on the basis of government and/or project initiatives entails the creation of a “bureau” having a predictable number of officers. But these structures rarely make any difference on the local scene. Induced structures of the latter type litter Sahelian West Africa, are often confusing to local community members, and in many cases locals and even the elected or appointed officers do not understand their functions or the objectives of the newly created structures (other than, that is, accessing project support of some kind; see Painter 1991).

3.4.2.2.2. The approach used since 1990 to reinforce the resource management capacity of pastoralists in the Sourindou-Mihity area is particularly important and noteworthy in the context of decentralized NRM. The WKP appears to be one of the very rare instances in Burkina (and in Sahelian West Africa, for that matter) where the central objectives have resulted in the actual

implementation of a framework for increased control over access to and use of pastoral resources by pastoralists (cf. Painter 1991:30-36, 63-68; Painter, Sumberg and Price 1994). The emphasis we give here to implementation is important. It serves to distinguish the WKP initiative from most all other initiatives in West Africa in which interventions to support pastoralist NRM are planned but very rarely acted upon. In the case of Sourindou/Mihity, the WKP has acted and the WKP can point to the results of its actions.

3.4.2.2.3. Pilot experiences with decentralized NRM in pastoral areas such as the WKP initiative create a process of experimentation and learning through concrete actions. This process must not end or suffer interruptions because a given project or source of financing terminates. The Burkinabe state and donor organizations that are involved in initiating promising pilot activities such as this must, together with active participation by local natural resource users, ensure the continuity of such initiatives, ensure that lessons learned are recorded, analyzed, and capitalized on and, preferably, ensure the careful replication of such initiatives or of particular components of successful pilot initiatives in other appropriate settings.

3.4.2.2.4. The processes of organizing and capitalizing on pilot initiatives such as that undertaken by the WKP in Sourindou-Mihity are of strategic importance and require flexibility, systematic support and careful follow-up and evaluation.

ANALYSIS: OBSERVATIONS AND OPTIONS FOR FUTURE ACTION

4. THE STATE AND LOCAL ORGANIZATIONAL CAPACITY

4.1. The state as obstacle to decentralized natural resource management in Burkina Faso.

4.1.1. Introduction: Issues to address.

Existing regulatory arrangements do not facilitate decentralized local control of natural resources in Burkina. This is especially true of forested areas and water-related resources.

Wood cutting and fishing permits provide two typical examples of regulations at work. These user permits are issued by the Waters and Forests and Fisheries services respectively without any specification concerning the locations where wood cutting and fishing may be practiced.

Furthermore, they are issued by state agents without any input or participation by local communities whose livelihoods depend on these resources, who know particular areas very well, and are in an excellent position to indicate more desirable or less desirable, over-exploited areas where resource use poses lesser or greater threats to the natural resource base. (These problems are described in the Bregadougou and Malou case studies.)

Likewise, the cumbersomeness and slowness of government procedures does not encourage the development of local capacity for decentralized natural resource management. To the contrary, current procedures are often obstacles to positive action and create a situation of local dependence on state agencies. This further immobilizes local initiative. The case studies describe concrete instances of situations where government procedures or lack of action

create obstacles to progress with local natural resource management efforts by pre-cooperative groupings of resource users (see Cassou, Malou and Sourindou-Mihity).

Our contacts with officials at the regional, provincial, department and lower levels revealed another extremely common pattern which, when combined with state omnipotence and omnipresence in the area of natural resource management, can be a serious obstacle to local empowerment and decentralized natural resource management. This problem is high staff turnover. High turnover rates of staff in key government technical services can be extremely disruptive. It interrupts the continuity of administrative processes attuned to specific local conditions and causes serious losses of “organizational memory.” The case studies reveal several examples of this problem. The first instance is that of the fisherman at Malou who have made several complaints to authorities in Kaya about the negative effects of the Razinga dam on circulation of fingerlings--the reproductive basis of their livelihoods. The second example is that of the pastoralist grouping WKP in Banh which filed a request with authorities in Ouahigouya about three years ago for legal reclassification of the forested areas around the Sourindou-Mihity basin. In both cases, staff transfers involving key administrative and technical officials have resulted in a situation where government authorities at several levels are unable to give community members information on the current status of their dossiers, and what is more, are unable to physically locate the dossiers.

The lack of trust and confidence by state representatives in the capacity and “seriousness” of local communities and actors is also an obstacle. So is their lack of support for innovative local actions or initiatives that are not codified by existing regulations or administrative practice, particularly when it is the community and not the relevant government

authority which initiates the action. The case studies reveal that these are important factors in hindering and discouraging local efforts to assume responsibility in the management of natural resources.

To terminate this list, which is not exhaustive, and therefore must be considered a “short list” of government-based obstacles to decentralized natural resource management which must be addressed, we note the particular problem of centralized management by the state of NRM-based revenues. Users of regulated natural resources in Burkina Faso pay fees to obtain wood cutting permits, fishing permits, hunting permits, etc. These fees currently go to the state treasury at which point there is (a) no accountability by the government to local communities concerning the amounts and disposition of user fees collected, or, judging from our observations, (b) no recycling of fee revenues back to the local level in order to improve local conditions of natural resource access and use. All the case studies, and particularly Cassou and Malou, reveal situations where user fees generate considerable revenues for the state but where localities and communities having the natural resources receive no apparent benefits. This lack of local reinvestment by the state of user-generated fee revenues further hinders the capacity of local communities to engage in decentralized management of productive natural resources.

4.1.2. Government technical services use narrow sectorial approaches.

Observations.

The approaches used by government technical services remain very sectorial in orientation despite the fact that local users of natural resources which these services purport to assist do not organize their livelihoods along sectorial lines. This narrowly focused sectorial approach has two noteworthy consequences: (1) widespread weak or non-existent horizontal linkages for

sharing of information, knowledge and understandings among different technical services despite the de facto overlap of their areas of responsibility; and (2) frequent inaction by technical services relative to local needs and a lack of transparency concerning the nature of obstacles at the technical service level when they occur. This results in turn in a lack of understanding and frustration, not to mention growing cynicism, among local actors whose ability to effectively handle natural resource issues is hindered for reasons beyond their control. In effect, the problems are caused by current practices of government agencies and their agents.

Options for future action.

Greater horizontal integration of technical service intervention is essential. There is, for example, a pressing need for integration of actions by multiple technical services at Cassou and Malou in order to develop an effective approach for improved and sustainable management of forest, fisheries and related resources. Similar needs and opportunities occur in Beregadougou and Sourindou-Mihity/Banh.

4.1.3. Current administrative boundaries may not correspond with the operational limits of resource management spaces used by local communities.

Observations.

The protection of river banks by members of SOCABE in Beregadougou and the management of pastoral resources by the pastoralist communities of Sourindou-Mihity provide two examples of the discordance between administrative zones and locally-lived action spaces. Two different provinces and two different departments have administrative authority over the endangered riverbank areas along the Berega river near Beregadougou. The *foy* of the Peul communities in Sourindou-Mihity/Banh covers an area which includes areas of both Burkina Faso and Mali.

The everyday management of natural resources by local users occurs within a geographic and economic space having known boundaries or “limits.” These boundaries are not static administrative boundaries, however. They are the result of reconnaissance and multiple actions by local users relative to available resources. When these spaces, or “action spaces” of local resource users are located in several different administrative units (e.g., departments, provinces, or even countries), the resulting lack of contact, coordination and collaboration between respective government authorities can create serious obstacles to local control over and management of the natural livelihood resources (cf. Painter 1992; Painter, Sumberg and Price 1994).

Options for future action.

One requirement for a more effective framework for local management of natural resources is greater concordance between administrative units on the one hand, and the resource management units that are created, recreated, modified and exploited by both agrarian and urban/periurban populations on the other hand. In other words, administrative boundaries and areas of administrative authority and cooperation must conform more closely to locally-defined units of resource management, or action spaces. With a view toward more effective and decentralized local control and management of key natural resources, the appropriateness and effectiveness of current administrative boundaries needs to be revisited and reconsidered with active input from the everyday users and managers of local resources. This is an area that deserves serious attention in the form of pilot initiatives.

4.2. Limited local capacity for decentralized management of natural resources.

4.2.1. Local organizational structures.

Observations.

The “classic” approach to creating new organizational structures at the local level, which appears to be widespread in Burkina, will probably not result in improved local capacity for decentralized natural resource management. Currently, government services having responsibility for promoting local organizational structures in rural areas of the country appear to emphasize a standard model, which is the pre-cooperative grouping. In fact, many “local initiatives” for planning and organizing actions relative to natural resource management in Burkina are externally induced.

The organizational tools furnished by government technical services to local communities consist primarily of basic “texts” (rules and regulations for internal governance) which may be ignored by group members, are often poorly understood, and can be perceived by group members as obstacles to effective local action.

The GGF based in Oupon, a village community near Cassou and one of the 24 GGFs in the Cassou site, provides an example of this problem. Members of the Oupon GGF are looking for ways to pre-finance their firewood sales. Doing so would facilitate access by GGF members to needed cash at the time of sales instead of waiting for delayed payment by the Cassou site’s management. It would also enable GGF members better to avoid corrupting situations that can result from local cash shortages which firewood wholesalers/transporters from Ouagadougou seem quick to exploit. They do so by paying the wood-cutters less than the price set for the

Cassou site, they pay them “off the record,” but they pay cash on the spot (see the Cassou case study report for details).

Despite the fact (at least as far as the situation is defined by BKF and Cassou site management) that the GGF operating rules and regulations “belong” to the GGFs, the GGF members at Oupon perceive that “their” rules prohibit such innovative improvements. Furthermore, the GGF members do not believe they have the authority to re-write their own regulations. In other words, the GGF is immobilized until BKF/government officials step in to approve modifications in the firewood marketing arrangements. Concretely, the Oupon GGF is waiting for action by the head of the Cassou site’s technical team.

By contrast, the GGF in the nearby village of Cassou has not waited for anyone’s approval and has successfully implemented a prefinancing arrangement using the GGF’s revolving fund. This arrangement has worked very well so far.

Evidence from all the Burkina case studies strongly suggests that no one, clearly identified government service is able and willing to function as a mentor for these local pre-cooperative groupings in order to assist them with development toward a more “mature” organizational status. As a result, pre-cooperative groups appear hamstrung by their dependence on one or more government technical or administrative services for major initiatives and decision-making. For all the cases of natural resource management included in the present study, the key technical service is the Forestry and Waters service (Eaux et forets), which is part of the government’s Environment service.

The government service which is in charge of rural organization (SPOFPP), provides occasional training programs (e.g., at Malou), which appear to be of a generic nature, aiming at

("classical") organizational development. This is useful. The service does not appear, on the other hand, to play a proactive role in local organizational development relative to specific local difficulties and needs of user groups at either of the two sites (Cassou and Malou),

In both places resource user groups having pre-cooperative status need support in developing their organizational capacity. In both places they seem mired in relations of dependency with state agencies and are having considerable difficulties in sorting out the mechanics of progressing toward a higher, more autonomous status. In both cases, SPOFPP appears not to have been very helpful. The government service seems to be yet another element in the governmental inertia which local user groups cannot seem to master, and which contributes to the immobilization of local initiatives toward decentralized natural resource management.

The case of the Cassou site is particularly complicated because the GGF members must deal with two additional powerful players having strongly centralized organizational styles. The first of these is the BKF project management, located in Ouagadougou, and its extension, the Cassou site management structure, which consists of the small technical support team located in Cassou. The second is the regional office of the Environment/Eaux et forets services, located in Koudougou. The local agent for the Eaux et forets services was transferred away from the Cassou area nearly a year ago, and the Environment service has no plans to fill the empty position. Organizationally the BKF project management (Ouagadougou and Cassou) and the Environment/forestry services would seem to have close links, being part of the same government ministry. But their operational differences and their remove from the local scene

have contributed to a condition of near-immobilization among members of the GGFs at the Cassou site.

We noted above that the Cassou GGFs have not yet succeeded in receiving government recognition beyond their dependent pre-cooperative status because of the judgment by local SPOFPP representatives that they are “insufficiently mature.” Nevertheless and very ironically, the BKF project management in Ouagadougou classified the Cassou site and its GGFs as financially “autonomous” more than year ago solely on the grounds of income figures from firewood sales which appear to have satisfied project planning targets. True, firewood earnings have been significant at Cassou, but, as we have seen, local organizational capacity is very limited. The “sustainable firewood production enterprise” is a collection of loosely articulated elements. In part because of this, the sustainability of the Cassou forest reserves and firewood income is dubious. The declaration by BKF project’s central management that the Cassou site is autonomous on the basis of economic criteria alone amounts to declaring that a house has been built and is ready for occupancy even though the foundation stones are not in place.

In the case of the Cassou site, even the regional Environment directorate (based in Koudougou) views the current “autonomous” status assigned to Cassou by BKF management as extremely premature in light of several problematic factors. The first of these consists of the prospects for sustained, profitable firewood production at the site given the steady decline of dead wood stocks relative to a steady increase in consumer demand having a preference for dead over green wood for domestic use. The second issue is the overdue need at the Cassou site for major investments in development of all-weather roads to ensure satisfactory market access to firewood production. The earning base for the site’s improvement fund is not expanding to any

extent, and may decline in the future due to the effects of the first factor mentioned above. Furthermore, infrastructural investment costs will be large and much of the fund is already used to pay the salaries of the Cassou site's technical team members. The third problem is that of very weak local organizational development among the Cassou GGFs despite nearly six years of BKF project operations in the area. It is fair to say that relative to this third point, the lack of local capacity development is the result of the highly centralized, narrowly technically focused management style of the BKF project.

Options for future action.

The Burkina case studies reveal three innovative approaches toward local organizational development deserving of special attention with a view toward decentralized natural resource management in Burkina Faso.

1. Some local organizational structures include users of natural resources as well as non-users which are nevertheless important because of their gate-keeping roles. They influence the processes of gaining access to and using key natural resources. The one, unfortunately short-lived example of such a structure is the project follow-up committee which was organized during the initial UNDP-financed phase of riverbank protection initiatives spearheaded by SOCABE in Berekadougou. The committee incorporated a broad range of actors--local and super-local, less and more powerful--in the decision-making process. As such, it should be looked at as a potential model or at the very least, a source of lessons for future actions involving multiple user situations.
2. Other structures build upon the socio-cultural potential of pre-existing local organizational forms. In these cases, the local structures for natural resource management and conflict

resolution are accorded greater legitimacy by community members. Their functions relative to natural resource management are also appropriated to a greater degree by local actors.

Examples from the case studies include the local mutual assistance organization, the *wouol*, which was a key organizing element in the creation of SOCABE in Beregadougou (see case study no. 1) and the *sudu baba* which provided the organizational foundations and the functional focus of the existing WKP organization of pastoralists in Sourindou-Mihity/Banh (see case study no.4).

3. Finally, some local initiatives have avoided what we have termed the “classic” approach to creating local organizational structures for natural resource management. We define the classical approach as one in which a predictable *bureau* is created, very often due to external inducement, having presidents, vice-presidents, secretaries, treasurers, etc. (many of which also have vice-officer positions), and a set of internal rules and regulations. Our observations from the case studies and earlier work (cf. Painter 1991) indicate that the responsibilities of officers thus created are generic and often meaningless relative to local contexts and problems, and that the general membership (and often the officers themselves) are often unclear about their specific roles or the reasons for the organization in the first place, not to mention the linkages between the introduced organizational structure and progress toward NRM-related objectives.

Instead, local user groups have opted for a more pragmatic, functional approach to creating roles within organizational structures. “Officers” have clear roles to play relative to organizational objectives. The best example of this approach is the WKP organization of pastoralists in Sourindou-Mihity/Banh. Key responsibilities are assigned to members according to specific functions that are necessary for effective pastoral resource management. These are

described by terms such as “head herder” and “forest monitor.” etc. The WKP has no president, vice-president, secretary, vice secretary, treasurer, etc. as do all the other structures encountered during the Burkina case studies.

4.2.2. Deterioration of local capacity to manage increasing pressures on natural resources.

Observations.

Local mastery of the natural resource management process appears to be difficult and conflict-laden in all the Burkina cases studied. This is a situation which is becoming more general throughout Burkina Faso and Sahelian West Africa.

There are multiple, often interlinked reasons for this deteriorating situation:

- 1.) Increasing demographic pressures on resources due to immigration, settlement and clearing of lands for agriculture, the movement of transhumant livestock owned by pastoralist groups and the increasing number livestock owned by more sedentary agriculturalists. The numbers of resource users is increasing as are their concentrations in relative privileged areas (e.g., the Comoe province). The supply of available natural resources is not, as far as we can discern, increasing in Burkina Faso. Taken together, these conditions lead to the competition, tension and conflicts among resource users which have been widely documented in Sub-Saharan Africa and which the Burkina case studies reveal as well.
- 2.) Increasing pressures on natural resources due to growing demand by urban and peri-urban markets for firewood, fish, pasturage materials, agricultural lands, water and foodstuffs.
- 3.) The strategic location of some natural resources relative to particular regional and cross-border dynamics, to major highway systems and other important infrastructural developments, such as all-weather roads, irrigation canals and man-made lakes (of which there are many in

Burkina), and stations along the Kaya/Ouagadougou-Abidjan railway. These all facilitate linkages between areas of production and supply and areas of demand and consumption, and contribute to increased pressures on natural resources.

4.) The continued expansion of cultivated areas due to the widespread impact of low-resource, extensive agricultural production systems.

5.) The generalized necessity for struggle and “hustling” as components of livelihood strategies in Burkina Faso. People have developed these strategies in relation to widespread but unequal rural poverty and a frequent absence of options for diversifying household real income throughout the year (cf. Berry 1989, 1993; Painter, Sumberg and Price 1994).

This lack of local mastery of natural resource management processes has multiple consequences, including but not limited to:

1.) The breakdown and dysfunction of long-standing indigenous mechanisms for regulating access to and use of key natural resources.

2.) Changing power relations among key actors, changes in the “rules of the game” of gaining access to, using and benefiting from the use of key natural resources such that the continued future access becomes highly problematic.

3.) Difficulties in coordinating actions by increasing numbers of resource users representing a varied range of livelihood strategies.

Options for future action.

Local communities must be empowered--or re-empowered (and the Burkinabe government and its representatives are the logical, key, albeit not the sole actors here) to:

* develop their own approaches to organizing themselves and other key actors for improved natural resource management.

* develop, in collaboration with local and regional authorities, agreements and “rules of good conduct” for natural resource use and management.

* ensure their own capacity for policing the use of key natural resources, including the authority to sanction individuals and groups who violate local rules of resource usage.

Examples of such functions include oversight and policing of forested and pastoral resource areas and oversight of resource use on and around water courses and other bodies of water.

4.2.3. Weak integration among different actors in processes of natural resource management.

Observations.

Narrow sectorial interventions are a major cause of poor integration and solidarity among actors concerned by local resource management issues. Cassou amply illustrates this problem. The narrow focus of BKF and Cassou site management on firewood production and marketing throughout the first two phases of project implementation has excluded input from and efforts to address the concerns of the area’s pastoralists and agriculturalists (who are also wood cutters). Both of these groups are vitally concerned with forest resource management. The more global management approach which is being used by the third phase of the BKF project in areas to the south and southwest of Cassou, and which is based in part on principles of *gestion des terroirs*, should be integrated into current approaches at the Cassou site.

In addition, consideration of the kinds of resources to be managed should provide the basis for integrating key actors and developing collaborative relationships for improved local natural resource management. Continued progress with the protection of riverbank areas

around Beregadougou, for example, has suffered because upstream users of Berega waters for irrigation and water users along the north bank of the Yannon river have not been sufficiently involved in SOCABE's efforts to promote riverbank protection. By the same token, the pastoralists, artisanal furniture makers and the wood-cutters who also use the river's waters and products from the gallery forests along the riverbanks were "forgotten" within the framework of SOCABE's earlier efforts to mobilize users for environmental protection.

Options for future action.

We will give brief attention to two local initiatives to make changes and which merit support and follow-up by all parties interested in decentralized natural resource management. The initiatives that we find at Cassou and Malou, based on the exploitation of firewood and fisheries resources respectively, are examples of components of an integrated, natural resource-based enterprise. In both cases the natural resource exploitation components and the actors are present but are loosely linked or juxtaposed rather than purposefully integrated. As a result, the synergy one might expect to find as the basis for an integrated, dynamic enterprise is absent in both places.

Actors at each location should explore the possibilities for promoting this synergy, but also explore other avenues such as:

- * looking for complementary interests among actors or for ways of transforming existing resource competition, tensions and conflicts among actors into collaboration based on mutually acceptable definitions of shared interests. Examples of potentially complementary interests at Cassou include those of the GGF wood-cutters, the wholesalers/transporters from Ouagadougou and urban customers who purchase firewood from Cassou;

* developing partnerships and collaboration between government technical services and sources of potential financing for rural initiatives focused on natural resource management.

4.2.4. Dependence and a “wait-and-see” attitude among local user groups in relation to the state, development projects and other major external actors.

Observations.

The case studies reveal an unhealthy degree of dependence by local groups on government services and organizations which are perceived as possible sources of funding or intervention. This was true of groups encountered in Beregadougou, Malou and Cassou, and to a lesser extent in Sourindou-Mihity/Banh. A “wait-and-see” attitude was also apparent among local group members in relation to government services having particular organizational and regulatory authority in the managing or determining access to resources such as forest, fisheries and river and lake water. This problem of dependence was particularly true of groups encountered at Cassou and Malou, to a lesser extent in Beregadougou, and appeared to be least problematic among members of WKP in Sourindou-Mihity/Banh.

Options for future action.

It is essential for local groups of resource users, in collaboration with a range of other appropriate organizations--public, private and NGOs--to develop and reinforce their basic capacities for action. Support is needed for expressions of local willingness to explore new resource management possibilities and to consider appropriate, innovative organizational strategies to test and implement new approaches.

It is necessary for local resource user groups to broaden their horizons in the area of partnership. These changes will require that local resource users collaborate with a range of

private and public organizations that is broader than currently appears to be the case; that is, with technical services and organizations beyond those which form the basis for current links and partnerships. So much for local resource-user groups. This recommendation also assumes that government services currently having oversight and regulatory responsibilities for specific kinds of natural resources are willing and able to change their operational modes from their current policing and gate-keeping roles to a role of providing support for local initiatives and promoting contacts between local user groups and other potentially helpful organizations.

4.2.5. Need for development and strengthening of local organizational capacity.

Observations.

Users of natural resources often operate in an individualistic fashion, often competitively in relation to a given resource or ensemble of natural resources. Processes of cooperation and collaboration are not well developed. As a result, little if any development of broader local capacity for natural resource management is occurring. In cases where local initiatives have occurred, their sustainability is not secure. Indeed, these instances of local initiatives, which we find in Beregadougou (SOCABE) and Sourindou-Mihity (WKP), deserve special attention and support.

Aside from the effects of long-standing situations of conflicting interests, this underdevelopment of local capacity can be explained by the cumulative impact of years of highly centralized, *dirigiste*, approaches used by state agencies and other development partners.

Options for future action.

Through participation in a process involving a series of actions, including dialogue and information/experience sharing, reflection and debate on possible new forms of organization,

training, etc., local resource users should be able better to identify feasible objectives and organize themselves accordingly.

Development of local capacity requires a certain degree of technical expertise to be sure (cf. Cassou), but above all, developing local capacity for more effective natural resource management requires significant increases in local organizational capacity .

4.2.6. Note on the relationship between diversification of household income sources and natural resource management.

Observations.

Natural resource management activities in the Burkina case studies are organized around one specific or several linked resources: in Malou, for example, principally fish, but also other related resources, firewood at the Cassou site, pastoral resources linked to the basin area in Sourindou-Mihity, and riverbank areas and water in the Berega and Yannon rivers in Beregadougou.

Resource users in the case study areas appear to view their real income options as relatively undiversified, that is, heavily dependent on continued exploitation of specific natural resources.

While this is not surprising, there is increasing evidence of a negative relationship between a lack of real income diversification and sustainable exploitation of natural resources (Reardon 1994; cf. McMillan, Painter and Scudder 1992).

Options for future action.

With a view toward longer-term sustainable management of resources, local users should give greater consideration to, and receive active support from key actors with their efforts in, identifying a greater diversity of real income sources, including but not limited to the natural

resources long-exploited by their group or community. In order to do this, it will be necessary for members of local communities and resource user groups to seriously consider:

- * the range and variety of resources available in a given area and the possibilities for rationally exploiting those resources for income;
- * the local or regional feasibility for making productive investments which, in turn, may increase and broaden their access to real income;
- * the availability of financing, credit or other sources of support and information in order to realistically explore options for investment and diversification;
- * the possibilities for forming partnerships among more powerful, privileged actors and actors that are less powerful and less well-off within a given resource-based context (e.g., SOCABE and SOSUCO in Beregadougou) or who are involved in related but weakly integrated income generating activities based on the exploitation of natural resources (Cassou and Malou).

5. DECENTRALIZATION AND LOCAL FINANCIAL AUTONOMY

5.1. Examples of local mobilization and management of economic resources generated through the exploitation of natural resources.

Observations.

5.1.1. The Cassou site. The Cassou site is the most impressive example from the Burkina case studies of mobilizing the economic potential of natural resources for the benefit of local user communities. Gross firewood sales revenues were substantial during the six year period from 1990 to 1995. During the average year, gross receipts for the period totaled 45.5 million CFA francs of which GGF wood-cutter's earnings averaged 17.2 millions francs per year. The

Cassou site improvement fund received an average of 14.1 million francs per year, the GGF revolving funds received 5.6 million francs, while the Burkina government received an average of 8.5 million francs yearly from wood cutting tax revenues.

5.1.2. WKP at Sourindou-Mihity/Banh. Money collected by WKP at Sourindou-Mihity for infractions by resource users in the forested areas around the basin area are modest when compared with the multi-million franc revenues at Cassou, but they are managed by WKP in a manner which, unlike the Cassou site GGFs, ensures that revenues are used to build up the productive capacity of the pastoralist enterprise. WKP purchases agroindustrial byproducts as a complementary livestock food for the dry season months and salt blocks for the rainy season months. The only bore hole located in the area, at Mihity, is also managed by the WKP.

5.1.3. Malou. Revenues from the fish weighing fees, collected by group-appointed weighing agents at the Malou crossroads or at the bridge sales point during peak season months, is saved as a fund by the fishermen's group for eventual equipment purchases. To date, however, the fund reserves have remained limited due to a variety of uses made of the money, and investments in equipment most often occur piece-meal, on the basis of individual loan arrangements between the fishermen and the women who fry fish in Malou. Given the expressed needs by the fishermen for productive investment, their credit needs exceed the funds resources or possible assistance based on individual loan arrangements.

With the exception of WKP, local access to fee and tax-generated revenues for improving local productive capacity is limited. In all cases, local capacity to manage these funds is constrained by state agencies.

Options for future action.

It is essential for local level organizational structures to have consistent and real (actual, i.e., operational) access to a portion of resource-based revenues. The “improvement taxes” (*taxes d’aménagement*) which are collected when individuals pay for fishing and cutting permits (e.g., Beregadougou, Cassou and Malou) must be used for the protection and improvement of the forested areas and bodies of water used by the permit holders. In areas where local organizations concerned with these functions already exist, they should be authorized to receive and manage fee revenues according to their analysis of local needs and opportunities.

The development and legitimization of local roles such as these will require that the community-based organizations described in the case studies be recognized by the state and its representatives as having the right and authority to: (a) regulate revenues generating from providing access to resources through mechanisms such as permits; (b) plan for the use of these funds; and (c) use the funds (their funds) as planned.

In some cases new fees may be necessary. For example, appropriate water use taxes or fees should be collected from individuals and groups who use water sources at Beregadougou and Malou for purposes of commercial agricultural production. Wood-cutters/sellers at the Malou crossroads earn more from their firewood sales than the wood cutters at Cassou. This is because, aside from paying the cutting tax, Malou wood cutters do not pay a portion of their gross earnings into local revolving funds or a more general improvement fund as do the wood cutters in the Cassou GGFs. There are no GGF-like structures at Yabo. While the Malou wood cutters are earning more, however, the Yabo forest is doing much worse. Following years of

delays, the forest does not benefit from a management/rotation plan of the kind we find in Cassou, and it is seriously degraded. The Malou cutters do pay their cutting tax nevertheless, when they purchase their cutting permits, and the revenues from permit fees produce a considerable amount of income for the provincial government seated in Kaya. We could find no evidence during our time in Malou that any of these improvement tax revenues revert to the local level for preservation and improvement of the Yabo forest area.

Recognition of local authority for management and/or oversight of fee-generated revenues is needed and some or all of the fees collected must return to the local level where they can be used for natural resource preservation and improvement. The mechanisms for revenue management, including decisions about the percentage of total fees received which will revert to the local level and decisions concerning their use, must involve active input from members of local users groups.

5.2. Limited local capacity for planning and management.

Observations.

In all the situations studied, local capacity is weak or absent in the areas of forward planning, implementation (actions) according to some objective or objectives, and follow-up and assessment of activities relative to longer-term management of natural resources.

Options for future action.

Sustained actions are necessary to develop and reinforce local capacities to organize in a more entrepreneurial manner.

We are not advocating the widespread application of “entrepreneurial” approaches to local initiatives in the area of natural resource management. Rather, we aim to stress the

importance of developing--through a collaborative process--certain basic organizational capacities that will be useful, lasting and reflect the combined views of multiple local actors relative to needs and opportunities for decentralized natural resource management. Currently these local capacities appear to be absent or seriously underdeveloped. In all cases, given the typical relationships we observed between local resource user groups and government agencies, there is little if any reinforcement by the state for local capacity development of this kind.

5.3. Local resource user groups need mechanisms for increasing their access to financial resources.

Observations.

A defining feature of decentralization in Burkina Faso seems to be a paucity of financial resources. This important constraint can be seen at several levels.

1. The international level. As a result of changing priorities and their own funding constraints, major bilateral and multilateral sources of funding have fewer resources and are less willing to provide financial backing to countries such as Burkina Faso. In addition, their commitments appear to be shorter-term and more conditional than before.
2. At the national level. Due to the “double pincer” effects of fiscal constraint required by structural adjustment policies, together with declining state revenues, the Burkinabe government has less and is providing less money to regional, provincial and local levels of operation.
3. At the local level. The widespread monetisation of everyday life in rural areas of Burkina has made cash necessary for most aspects of simple household social reproduction, not to mention purchases, payments and productive investments of any significance. Rural (and urban and peri-urban) households are increasingly squeezed by the constant need for cash on the one hand, and

on the other, limited opportunities for generating needed income and a near-total absence of access to rural credit.

Options for future action.

Faced with this penury of financial resources, rural communities in Burkina are in dire need of mechanisms that enable them to: (a) gain access to needed cash or credit; (b) protect whatever capital they manage to accumulate through earnings, funds, etc.; and (c) increase their limited revenues through some kind of mechanisms for fund or capital growth.

Given the lack of interest by banks--even agricultural credit banks--and most other formal bank-like structures in the capital needs of typical rural users of natural resources in Burkina Faso, greater emphasis must be given to the role of NGOs (such as Sahel Action [WKP case study], CIDR [Cassou case study] or ADRK [Malou case study]) as mechanisms for assisting rural populations with their efforts to gain access to credit and promote savings.

Likewise, it is necessary to examine how support can be garnered for efforts by resource user groups better to organize income generating activities linked to the exploitation of natural resources. Examples of possible arrangements include:

- * creating funds based in part on user fees that are operational (i.e., that work) for the maintenance and improvement of forested areas, water courses and bodies of water;
- * organizing mechanisms for productive investment and payment of investment returns on the kinds of revolving funds and collectively managed funds that we observed among the woodcutters in the GGFs at Cassou; etc. These mechanisms and others like them, such as savings programs, would protect natural resource-based revenues, and promote their growth, and would

enable local user groups to better face the realities of increasing costs to preserve, protect and manage key natural resources within a broader context of economic constraint.

6. TOWARD NEW PARTNERSHIP PARADIGMS AMONG USERS OF NATURAL RESOURCES IN BURKINA FASO

6.1. Give greater emphasis to potential for partnerships.

Observations.

The case studies reveal that partnerships-based actions in the area of natural resource management are absent or not well developed if present. Local awareness concerning the potential of concerted action with other actors (other resource users, non-users which nevertheless play important gate-keeper roles relative to resource access, NGOs, government agencies, etc.) as partners appears to be very weak.

This is not surprising given the constraints and the organizational precedents we have described earlier. Competition and conflict over gaining access to and using natural resources appears to be much more common than cooperation. Examples include SOSUCO relative to SOCABE in Berekadougou; the groups of fishermen and fish fryers in Malou relative to larger fish buyers from Ouagadougou; and the GGFs/UGGFs in Cassou relative to the firewood wholesalers and transporters based in Ouagadougou.

Options for future action.

Follow-up and support by structures such as the National Decentralization Committee (CND), other state agencies or some other structure, be they NGO-based or based on a partnership involving the government, NGOs and international development organizations, are critical to

successful efforts to define new, more effective relationships among multiple users of the same resource or ensemble of resources. Such an arrangement would provide (1) needed oversight to ensure a rational and sustainable use of natural resources, and (2) a more equitable sharing of the benefits from resource use. Actions of this kind would contribute importantly to the groundwork for a gradual and methodical transition from competition and conflict over natural resources to partnerships for more effective management.

The case studies also reveal the existence of significant potential for partnership development among resource users. We will return to other aspects of potential partnership relations in section 7.2.2 of the report. In the case of SOCABE in Berekadougou, we see a nascent partnership and important opportunities for further partnership development. In Berekadougou, the local (Banfora-based) pharmaceutical company, Phytofla and SOCABE are working together to protect riverbank areas in part through the production of medicinal plants. This is a modest, but very innovative endeavor because it combines actions based on disparate economic interests combined with a shared concern to preserve the productive natural resource base in areas along the Berega and Yannon rivers.

The Phytofla-SOCABE partnership appears to be a rare case in Burkina where potentially competitive resource users collaborate for purposes of sustainable natural resource use and management. In other instances (Cassou and Malou) the elements of partnership are present in the local situation, but they are not well articulated and have not been developed by key actors into a more powerful partnership structure. It is essential to continue efforts to identify and realize the potential of promising and/or challenging situations like this in Burkina Faso and to explore avenues for ensuring effective follow-up and support if they require it.

The Phytofla-SOCABE partnership is also noteworthy because of its as-yet untapped partnership potential. Phytofla's herbal-based pharmaceutical products are distributed to pharmacies all over Burkina and are esteemed by consumers. Phytofla is poised for expansion of its product range and for more active sales promotion. A Phytofla-SOCABE partnership which unites and develops Phytofla's visibility and growing marketing savvy with SOCABE's interest in promoting more sustainable use of natural resources could easily translate into a more effective, higher-profile effort. This would increase public awareness about natural resource issues, promote Phytofla's product line, and facilitate SOCABE's access to sources of partnership funding for its riverbank protection initiatives.

6.2. Ensure greater equity in relationships where actors of unequal strength are engaged in natural resource use and management.

Observations.

The SOSUCO agroindustrial complex in Beregadougou and the firewood wholesalers and transporters from Ouagadougou (Cassou site) are examples of very powerful actors that are engaged with much less powerful, community-based groups in processes of natural resource use and management. In both cases the more numerous but much less powerful actors feel (and complain about) the negative impacts of natural resource decision-making by more powerful resource users. But aside from complaining, there is not a lot that the small actors can do. Or so it seems....

Options for future action.

Effective partnerships in the decentralized management of natural resources require the creation of an action context in which steps are taken by all actors to "level the playing field" of resource

access and use. A more equitable participation of various partners in the process of setting NRM objectives and decision-making is needed. Such an equalizing strategy would facilitate more equitable access among partners to the benefits of resource exploitation and would strengthen the commitment of all engaged actors to sustainable resource management.

6.3. Improve relationships between the state and local natural resource user groups.

Observations.

Clarifying and realizing the potential for partnership development between government services and local groups will require considerable effort on all sides.

Options for future action.

Government services do not currently function in a manner that promotes the realization of the partnership potential which exists in their relations with local groups of resource users in Burkina Faso. In fact, their current modes of operation may go a long way toward hindering local development relative to natural resource use. The difficulties in the current situation are numerous and include the organization of government services, weak horizontal operational linkages among technical services despite significant real-life overlap in their areas of responsibility, and attitudes among service staff relative to local users of natural resources that range from lack of confidence and disdain to mistrust.

With a view toward more effective state-local partnerships, it is important that:

- * the roles and responsibilities of different actors be clearly recognized, understood and accepted;

* government services change their typical intervention mode, having a control and policing emphasis, to one of supporting and facilitating local processes for more effective, locally-controlled natural resource management;

* local groups have the authority to initiate and follow up actions (and dossiers; cf. the cases of WKP in Sourindou-Mihity and the fishermen in Malou) relative to natural resource management without waiting indefinitely for the agreement or reaction and action of a given government technical service.

7. THE IMPORTANCE OF PILOT INITIATIVES AS A COMPONENT OF ANY STRATEGY FOR PROMOTING DECENTRALIZED NATURAL RESOURCE MANAGEMENT IN BURKINA FASO

7.1. From case studies for learning to pilot initiatives for action-research.

Observations.

The case studies have illuminated a range of experiences in local natural resource management. Each has shown particular achievements and potential for further development and success. Likewise, each case has illustrated particular constraints. In some instances, the features observed emerge as themes shared in common by several of the cases studied. We find common themes of success in the manifest local concern and willingness to take action in order to protect crucial natural resources. SOCABE in Beregadougou and WKP in Sourindou-Mihity/Banh are particularly important examples.

In contrast, shared themes of constraint and limitations on local action reflect the widespread weaknesses in the autonomy of community-based groups in relation to government

administrative offices, technical agencies (occurring to a degree in all the cases studies), and in relation to particularly powerful players in the local arena of natural resource use and management. Other shared themes of limitation on local action result from widespread weaknesses in local organizational capacity. These limiting themes must be addressed by a wide range of actors if the inhabitants of Burkina Faso and the natural resource base they exploit for their livelihoods are to benefit from resource management initiatives that are on track, innovative, make a difference (for the better) and are potentially sustainable.

Beyond their important role in revealing these themes, the Burkina case studies have illuminated a much broader systemic problem which must be addressed by the CND and current and potential actors. This is necessary if we are to identify, learn from, and promote particularly promising approaches to decentralized natural resource management in Burkina Faso.

This problem consists of a generalized lack of sharing and circulation of information and lessons among organizations at multiple levels in Burkina Faso, including community-based groups, NGO's, government agencies and multilateral and bilateral development organizations. It is particularly important that current reflection and elaboration of draft policies relative to decentralized natural resource management constantly be informed by the lessons of local praxis.

Options for future action.

Mechanisms to capture and analyze learnings from local initiatives--successful and unsuccessful--are essential to decentralized NRM in Burkina Faso. The Burkinabe decentralization process urgently needs mechanisms for support, follow-up, analysis, "digestion," and elaboration of concrete action steps relative to particularly promising (or problematic) experiences.

The case studies reported herein will contribute to the process but much more is needed. There is a pressing need to identify and use experiences of decentralized natural resource management in Burkina Faso as ongoing, “real life,” natural experiments or as “windows” on important local processes, problems and opportunities.

We believe that pilot initiatives can make a particularly valuable contribution in this regard. We also believe that the four Burkina cases offer considerable potential, first, as a source of information, and secondly and more importantly, as the basis for pilot initiatives grounded in agrarian realities. The challenge we face now is to transform these case studies into proactive experiments in decentralized natural resource management; that is, to transform mechanisms for learning into mechanisms for informed action.

We propose that as an essential next step in the decentralization process, particular attention be given to these cases as laboratories for continued learning about NRM contexts and for organizing specific initiatives to deal with those contexts and the challenges of different situations of natural resource use. We close this report with our recommendations for pilot initiatives relative to decentralized natural resource management in Burkina Faso.

7.2. Options for pilot initiatives.

7.2.1. Follow-up and support of pastoral resource management by *Walde Kawral Pulaaku* (WKP) in Sourindou-Mihity/Banh.

The case of the WKP pastoralist group in Sourindou-Mihity is particularly significant. The WKP is one of the very rare initiatives in Sahelian West Africa where concrete actions are underway to ensure greater local control over natural resources by pastoralist groups within a locally delimited spatial unit (action space).

The organizational foundations of the WKP initiative appear very solid, once again, contributing to its singularity in Burkina Faso. First, it is based on indigenous principles of natural resource management which are effective and long-standing; i.e., well anchored in the past experience of the WKP members. Second, the pastoralists within WKP are strongly committed to its success.

Unfortunately, the support which had been provided for several years by INERA through the Projet Vivrier Nord (PVNY) ended in 1993 due to a break in PVNY project funding. To this interruption was added another. The WKP's efforts to have the forested areas around the Sourindou-Mihity basin reclassified by the government as a village forest lost momentum and currently seem to be frozen due to lack of follow-up by the Burkinabe government's Environment service. The WKP's formal request for reclassification, submitted in 1993, remains untouched by administrative authorities.

We view the break in financing for the supportive activities formerly provided by the INERA team and the current administrative quagmire in which the WKP dossier seems to be mired as most unfortunate. Together, these two external developments may have sapped to a degree the energies of local organizational development within the WKP. We strongly recommend that the appropriate government services locate the WKP dossier and provide the requested reclassification. Secondly, we recommend that the WKP's innovative initiative be supported, followed up and assessed on a regular basis through a partnership relationship involving the WKP and other local and regional actors. It is critically important that WKP's progress be assured and that all actors associated with it draw all possible important lessons from this effort to manage a pastoral space. The resultant learning should be used by WKP and

any of its partners to improve its local organizational strategies for ensuing decentralized natural resource management. These learnings should also assist government administrative and technical services with their efforts to be more effective in supporting and facilitating decentralized natural resource management among pastoralists and agropastoralists in Burkina Faso. Finally, the lessons from the WKP experience must be critically examined and disseminated when appropriate in order to promote sustainable, locally-controlled natural resource management by pastoral communities elsewhere in Burkina Faso and in West Africa.

7.2.2. Protection of riverbank areas by SOCABE in Berekadougou.

Aside from the particular interest of the SOCABE as a spontaneous community-based initiative, continued follow-up and support of its efforts to protect the banks of the Yannon and Berega are important for several reasons.

1. Riverbank protection of this kind and scale is an uncommon but very important activity in Burkina, particularly in an area of the country which is widely perceived as being privileged, hence subject to heavy settlement and possible abuses of the natural resource base. The Comoe is one example among several in West Africa which ironically suffer from a relative lack of concern by planners and many local users because their resource endowments are better relative to many other areas in the country (for example, the Mossi Plateau of Burkina Faso). These relatively rare, privileged areas in river valley areas of West Africa such as the Comoe, must be protected and rational programs for natural resource management must be developed in order to avoid the kind of serious environmental deterioration that is widespread in other parts of Sahelian West Africa (McMillan, Painter and Scudder 1992). The challenge in areas like the Comoe is to organize a range of resource users in order to avoid or slow environmental

degradation. In areas like the Mossi Plateau, the damage--and serious damage at that--has already been done. In fact, many "development" projects in the Plateau area since at least the 1970s have consisted essentially of efforts to repair serious environmental damage and avoid a total breakdown of agricultural production and agrarian livelihoods. With sound forward planning, the natural resources of the Comoe can be protected and used for people's livelihoods.

2. The riverbank protection efforts around Beregadougou exemplify a situation of natural resource use involving very unequal partners (SOSUCO and SOCABE among others). As such, it provides an invaluable opportunity for the development of local organizational capacity and experimenting with approaches to (a) "leveling the playing field" for actions by multiple and unequal players in natural resource management, and (b) developing a much more proactive and broader role than SOSUCO currently plays in processes of natural resource management in the Comoe river basin area.

3. The Beregadougou situation provides one of the very few examples in Burkina Faso where there is considerable potential for developing a partnership for improved and more equitable natural resource management involving local groups and a powerful, well-endowed "corporate" partner. Presently, however, SOSUCO is not playing a socially proactive and financially supportive role in support of local resource protection and management initiatives. We believe that SOSUCO must help with providing needed leadership in this area. Doing so will provide an important partnership model, and, together with a sponsorship role, will provide needed technical, organizational and financial support for local NRM initiatives such as those started by SOCABE.

4. The SOCABE experience provides the CND, regional and local organizations with an opportunity to experiment with decentralized natural resource management involving active collaboration of partners within user-defined units of natural resource use and across existing administrative boundaries in a situation where these boundaries are obstacles to local collaboration.

7.2.3. Management of forestry and fisheries resources by local groups at Cassou and Malou.

Both Cassou and Malou illustrate the considerable potential for local (and non-local) economic gain and loss based on the exploitation of natural resources. These cases also reveal local organizational weaknesses that must be addressed in order to increase the chances of successful, sustainable decentralized natural resource management by the different community-based groups and external actors that are involved.

Without considerable investment in the areas of creating and/or reinforcing local organizational capacity for proactive resource management, both of these promising initiatives could easily--and rapidly--fail. Their failure will be a double loss: (a) for the livelihood strategies of local populations; and (b) for the sustainable management of the forestry, fisheries, water and land resources we find in each location.

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ORGANIZATIONS AND PERSONS CONTACTED IN OUAGADOUGOU

(See also the lists of organizations and persons contacted for each case study.)

Projet Amenagement des Forets Naturelles (PNUD/BKF/93/003/A):

Mr. Galip Hien, Chef de volet agriculture/elevage.

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Service de la Peche:

Mr. Zongo Karimou, Chef de service, Amenagement et Exploitation Piscicole;

Mr. Raymond Ouedraogo, Service d'Etudes et statistiques.

SOCABE:

Mr. Antoine Soumbie.

Union regionale des groupements de jeunes agriculteurs du Centre:

Mr. Kabre Emmanuel, President.

Commission Nationale de la Decentralisation:

Mr. Antoine, President;

Mr. Kabore Emile, Charge de Communication.

Sahel Action:

Mr. Ouedraogo Ignace, President.

Mr. Soumbie Jules, Charge de la formation, Volet credit.

Mr. Sanou Raoul, Responsable projet petit credit.

Caisse Francaise de Developpement:

Mr. Remi GOUIN, Charge du developpement rural.

Appendix No. 1

FRAMEWORK FOR COLLECTION OF CASE STUDY DATA

1. Which resources, including natural resources, are managed by the local community?
2. How are the resources situated in terms of local and extra-local space?
3. What kinds of linkages exist between the local context of natural resource management and extra-local, i.e., sub-regional or regional sources of influence (e.g., administrative centers, important markets, other poles of attraction or influence)?
4. Who (which groups or social categories) manage the resources and how? Specify:
 - * their terms of access to the different resources;
 - * their degree of control over the resources;
 - * their use of the resources and their capacity to capture the benefits from resource use.
5. What are the economic, socio-cultural, physical/other impacts of resource management?
6. What changes if any have affected the management of natural resources and how has this occurred? Examples include:
 - * infrastructural changes
 - * juridical/legislative changes
 - * political changes
 - * economic changes
 - * natural changes
 - * demographic changes
 - * changes caused by a project(s)
7. What are the local capacities and competencies in the area of natural resource management and how developed are they?
8. Which capacities should be present locally for satisfactory natural resource management. For those capacities that are absent or weak, what are the explanatory factors?
9. Do organizational structures exist for natural resource management and to what extent are they accepted and considered legitimate by the community?
10. Do existing legal, institutional or legislative factors act to promote or hinder local natural resource management? If so, how?
11. In the cases of projects that are involved in natural resource management and which claim to use a "decentralized" approach, have they succeeded in transferring significant management responsibilities to their beneficiaries?
12. What recommendations can be made concerning the current state of decentralization in Burkina Faso, and on the basis of the case studies, what recommendations can be made to further promote the decentralization of natural resource management? Who should be doing what, when and how?

Appendix No. 2

Table 1 - Case No. 1

CHARACTERISTICS OF CASES SELECTED FOR THE STUDY
Actions to protect riverbank areas by members of the Beregadougou Agricultural
Cooperative Society (SOCABE)

1. Name of Site: Beregadougou
2. Location in Burkina Faso: Extreme southwest
3. Department: Beregadougou
4. Province: Comoe
5. Agro-climatic situation: Southern sudanian (900-1000 mm of rainfall per year)
6. Type of natural resources: Agricultural land, river water, forest species and natural gathered products (fruit, fronds, etc.)
7. Type of initiative(s): Protection of riverbanks along tributaries of the Comoe; awareness-raising among non-members of SOCABE through cooperation from technical services; commercial production of fruit and vegetables for local and foreign markets.
8. Origin of initiative: Local and spontaneous, with periodic support from NGOs.
9. Involvement of groups often marginalized in NRM: Younger men (youth) and women
10. Other important resource users: Agriculturalists (rain-fed production and small scale irrigated production); larger-scale commercial crop producers, pastoralists (particularly in transhumance), SOSUCO, SOPAL, artisans.
11. Special issues: Development of partnerships (especially with government services and SOSUCO); greater awareness among riverbank agriculturalists outside the SOCABE zone and outside the department and province; marketing linkages; financial support.
12. Extra-local influences: Strong regional and sub-regional dynamics due to proximity of major international highway and rail systems; easy access to major markets in Burkina Faso, Mali and Cote d'Ivoire

Table 2 - Case No. 2

CHARACTERISTICS OF CASES SELECTED FOR THE STUDY
Commercial exploitation of forested areas by the forestry management
groups in Cassou

1. Name of Site: Cassou
2. Location in Burkina Faso: Southern central
3. Department: Cassou
4. Province: Sissili
5. Agro-climatic situation: Sudano-sahelian (800-1000 mm of rainfall per year)
6. Type of natural resources: Trees and other woody species, agricultural land
7. Type of initiative(s): Planned cutting of specified forested areas on a rotation basis in order to generate income for members of forestry management/wood-cutters groups (GGFs); support a structure for sustainable firewood management and supply of firewood to Ouagadougou.
8. Origin of initiative: Government (Environment service) through the BKF project
9. Involvement of groups often marginalized in NRM: Women
10. Other important resource users: Teams of wood cutters from outside the Cassou site having links with firewood wholesalers/transporters from Ouagadougou; immigrant agriculturalists; pastoralists.
11. Special issues: Effective operational and financial autonomy of GGFs; sustainability of current organizational arrangements for commercial exploitation for forested areas; sustainability of the forested areas themselves due to growing urban demand for firewood.
12. Extra-local influences: Very strong influence of Ouaga firewood markets

Table 3 - Case No. 3

CHARACTERISTICS OF CASES SELECTED FOR THE STUDY
Exploitation of fish resources from the "Razinga" by men's and
women's groups in Malou

1. Name of Site: Malou
2. Location in Burkina Faso: Central
3. Department: Mane
4. Province: Sanmatenga
5. Agro-climatic situation: Sahelo-sudanian (500-600 mm rainfall per year)
6. Type of natural resources: Fish, water, pastoral resources, agricultural land
7. Type of initiative(s): Fishing; sales of fresh fish; preparation of catch as fried or smoked fish for sale
8. Origin of initiative: Local and spontaneous commercial initiatives by members of pre-cooperatives created through initiative of local forestry service which provides continuing oversight (*encadrement*).
9. Involvement of groups often marginalized in NRM: Women
10. Other important resource users: Fishermen from outside the community; pastoralists; commercial and non-commercial agriculturalists; wood-cutters.
11. Special issues: Organizational and financial autonomy of the men's and women's groups relative to the government; articulation and integration of components of potential fish-based enterprise; multiple uses of resources; access to financial resources for improvement of activities by both groups.
12. Extra-local influences: Important and increasing due to Malou's location at highway crossroads with easy access to Ouaga; strong prospects for increased commercial valuation of productive natural resources due to developing trade linkages with Ouaga and European markets.

Table 4 - Case No. 4

CHARACTERISTICS OF CASES SELECTED FOR THE STUDY
Management of pastoral resources by the livestock herders
of *Walde Kawral Pulaaku*

1. Name of Site: Sourindou-Mihity
2. Location in Burkina Faso: Extreme northern central
3. Department: Banh
4. Province: Yatenga
5. Agro-climatic situation: South sahelian (400-600 mm of rainfall per year)
6. Type of natural resources: Forest and pastoral resources, agricultural land
7. Types of initiatives: Controlled access to and management of pastoral resources through organization of a pastoral resource management unit.
8. Origin of initiative: Local and spontaneous, with some assistance from the a government project (PVNY + INERA) and a NGO (IUCN).
9. Involvement of groups often marginalized in NRM: Pastoralists
10. Other important resource users: Settler agriculturalists from southern areas; transhuming Malian pastoralists.
11. Special issues: Deterioration of long-standing local natural resource management systems; increasing pressures on pastoral resources and land areas caused by agriculturalists from southern areas.
12. Extra-local influences: Weak due to relative isolation, but these are likely to increase due to impact of recently improved road links with provincial capital of Ouahigouya, to the south.