

PN-ABQ578  
Land Tenure Center  
Cooperative Agreement with USAID/Niger 85850

**ACCESS TO RESOURCES  
IN THE TÉRA ARRONDISSEMENT, NIGER:  
BACKGROUND AND RECOMMENDATIONS  
FOR RURAL CODE REFORM**

by

**Annmarie M. Terraciano**

**DISCUSSION PAPER NO. 5**

**LAND TENURE CENTER  
UNIVERSITY OF WISCONSIN-MADISON**

**June 1993**

## CONTENTS

	<u>Page</u>
<b>Acknowledgments</b>	v
<b>Executive Summary</b>	vii
<b>1. Introduction</b>	1
<b>2. Study Site</b>	3
<b>3. Methodology</b>	11
3.1 Site selection	11
3.2 Field methods	12
<b>4. Land Use and Natural Resource Management</b>	15
4.1 The structure of land access and control	15
4.1.1 Historical context of land tenure problems	16
4.1.2 Customary law and the importance of being first: rights of inheritance	17
4.1.3 Land to the tiller: rights of use	19
4.1.4 Reactivation of "customary" rights	22
4.1.5 Exclusion and land availability: importance of occupation	23
4.1.6 Horticulture policies	24
4.2 The role of labor markets	27
4.2.1 Agricultural labor	27
4.2.2 Pastoral labor	29
4.2.3 Rural exodus	31
4.3 Transfer of herd management and ownership	31
4.3.1 Integration of agriculture and pastoralism	32
4.3.2 Transfer of ownership	33
4.4 Managing land fertility	35
4.4.1 Fallowing land	35
4.4.2 Crop residues and local grasses	38
4.5 Conflict resolution	39
4.5.1 Legal reform	40
4.5.2 Overlapping jurisdictions and representation	42
<b>5. Discussion</b>	45
<b>6. Recommendations</b>	48
<b>Appendix: Interview Questionnaire</b>	56
<b>Bibliography</b>	59

## ACKNOWLEDGMENTS

I wish to express my thanks to the staff of USAID, particularly Meg Brown, Barry Rands, Ibrahim Oumarou, George Taylor, Ellen Taylor-Powell, and Bala, for their assistance with this project. A special thanks is due to Sidi Mohammed, who suggested Téra as a field site.

I also extend my thanks to the Rural Code Commission, Mr. Ibrahim Oumarou, Mr. Moussa Yacouba, Mr. Mamoudou Hassane, and especially Mme. Aicha Mamoudou, for their support. Dr. Akilou Habou provided very appreciated advice and comments on several occasions.

I would like to thank the staff of the Land Tenure Center, University of Wisconsin-Madison, particularly Peter Bloch who supervised the project. Jim Delehanty in the Department of Geography provided invaluable advice in writing the report.

Many thanks are also due to the villagers who participated in this study, and to each of the *chefs de service* in Téra who repeatedly provided insights during this research. Finally, thanks to Assoulane Addabah and Hamna for their assistance with fieldwork.

## EXECUTIVE SUMMARY

Accelerating ecological and demographic changes in Niger, including diminished rainfall, expanding agriculture, population growth, and resettlement, have significantly increased the competition for scarce resources and profoundly affected the relations between agriculturalists and pastoralists. Several overlapping systems of law and custom, together with regional socioeconomic and ethnic differences, combine to form a complicated mosaic of land tenure and management in the country. Since the early 1960s there has been a recognition of the need for some broader, more integrated system of managing natural resources and addressing problems of resource access in rural communities.

The National Rural Code Committee of Niger, under the supervision of the Ministry of Agriculture and Environment, is in the process of defining a "set of nationally applicable and regionally equitable standards and procedures" (Delehanty 1992) that will address existing tenure conditions and conflicts as well as facilitate a program of natural resource management. These efforts to increase security and ensure environmental protection are intended to promote investment in the agricultural sector while empowering producers in the political arena (CNCR 1989). Understanding the importance of indigenous endorsement in implementation, the Code Committee has a stated commitment to interpret and uphold local resource custom and to strengthen local institutions to enforce this law.

This study, undertaken between September and November 1992, attempted to gather locally based data in support of the Rural Code and the laws of implementation. Research focused on the structure of resource allocation, access, and management within a multiethnic, agropastoral region in Téra, western Niger. The goals were to identify changes in land use, tenure rights, and resource management resulting from drought, migration, legal reform, and other factors, and to analyze and explicate the sources and forms of land-use conflicts for

specified groups within the community. As differences in people's opportunities and constraints can confound efforts at development and reform, population subgroups need to be recognized and defined, and any changes implemented must be sensitive to the regional and subregional differences that influence people's relation to land.

The study revealed that the structure of traditional land access and control in the region has been substantially altered by several laws and policies in the colonial and postindependence periods. Many persons, for whom there is no provision in customary law, have gained or claim ownership rights to the land. Multiple claims to the same fields and a general sense of confusion over rights have caused intense conflict within and between villages. Perceptions of tenure insecurity, in turn, have led to an expansion and intensification of land use and the restriction or elimination of nonowner use-rights such as borrowing and grazing.

The research also indicated that labor shortages and the ability to secure various kinds of labor arrangements (agricultural, pastoral, rural exodus) become a key factor in each family's access to resources and capacity to avoid conflict. It is suggested that hiring agricultural labor, by allowing families to intensify cultivation and not leave lands fallowed, is one method of dealing with both scarcity of land availability and tenure insecurity. In addition, hiring herders frees the livestock owner from the burden of obtaining sufficient pasture, since it is always the herder's responsibility to find available land. However, the separation of livestock management from landownership may increase conflicts, for *bergers* are not responsible for crop damage and have no political power to protect pasture or water resources.

The increasing sedentarization of pastoralists following recent droughts has resulted in a concentration of animals in or near zones of cultivation, altering land-use patterns and increasing conflict between livestock owners and farmers. In addition, the active colonization of vacant spaces for agriculture has diminished pastoral resources and closed off access to water points. These changes, as well as the transfer of herd ownership to women and wealthy men (large herd owners), indicate a progressive movement toward a forced

integration, rather than a harmonious coexistence, of pastoralism and agriculture and the development of much more intensive forms of livestock management. The situation requires new methods for managing natural resources and resolving conflict.

The practice of fallowing land is diminishing in the region, in part due to the lack of available land for shifting or extending cultivation. In addition, there is substantial fear that fallowed land is at high risk of being appropriated by other villagers, which would then result in a permanent loss of control over fields. A growing market in crop residues and cut local grasses indicates diminished availability and access to pasture and is a serious problem for the local management of livestock.

Ethnic conflicts in rural areas of Téra have much to do with the competing principles of customary and statutory rights of landownership and the overlapping jurisdictions of traditional and government authorities. Villagers naturally seek out authorities who will recognize the legitimacy of their rights; for the large number of noncustomary owners, it is possible that acceptance of other (i.e., statutory) rights may be achieved only through local administrators. The absence of clearly defined roles for customary and government authorities often leads to simultaneous arbitration of conflict at several levels and a loss of respect for traditional authorities to implement and enforce property and use-rights. A particular problem for successful conflict resolution is the restricted power of the *chefs de groupement*, who have authority over certain ethnic groups but not over land allocation or management.

In order that people may better manage natural resources and diminish conflict, legislative efforts must to be taken to facilitate access to resources, grant security over both use and ownership rights to land, and restructure the governing institutions. It is hoped that the recommendations which follow will be helpful to the Rural Code in fulfilling its goals.

1. Formally abandon the May 1961 laws (*Lois* 61-5 and 61-6) which fixed the northern boundary of crops and considered the zone north of that line pastoral.

2. Define or reevaluate key, ambiguous terms used in the supplementary written texts of the Rural Code, including ownership, tenure, public property, communal access, *maîtrise exclusive*, management, and *mise en valeur*.
3. Recognize the legitimacy and equal merit of different origins of ownership rights to land, including noncustomary rights, particularly land to the tiller, and develop methods to guarantee tenure security for them.
4. Develop methods or procedures for the attainment of ownership rights by noncustomary users, and facilitate the secure exploitation of land by nonowners.
5. Secure the tenure of pasturelands according to the concept of *terroire d'attache*.
6. Specify the legal width of livestock corridors, *pistes de transhumance*, and the area of access to water points. Endow local authorities with the power to enforce these boundaries.
7. Formulate provisions to improve women's land access and tenure security, particularly for dry-season horticulture. Promote legal reform that allows women to inherit land.
8. Secure the practice of fallowing by allowing land to remain uncultivated longer than three years without its resulting in a loss of rights or a transfer to other users, as is currently stipulated in the Rural Code (Art. 19). The seven-year period provided by Islamic law is suggested.
9. Abolish permanent rights of landownership in the absence of *mise en valeur* after ten years.
10. Reorganize the *Commission Foncières* to include participants from the local community. Explicitly define the role of the *Commission* with respect to setting and administering rules over resource use and resolving conflict.
11. Retain an independent role for the *Commission de Conciliation* and strengthen these boards by including customary authorities.
12. Grant *chefs de groupement* the power to manage and administer communal access and use of resources within the *terroire d'attache*. Establish better procedures for the resolution of conflict at different levels of arbitration.
13. Promote the development of Regional Land Use Committees entrusted with setting land use plans and goals consistent with national policy.

14. Support open growth of thorny trees managed for thorn-branch production and amend regulations to allow cutting at will for fencing material.
15. Facilitate a better coordination of agropastoral activities in the region. This includes:
  - a) Develop a system for the circulation of animals in agricultural zones and the strict delimitation and protection of livestock corridors and pasture areas. Maintain access to water points for garden sites and animals.
  - b) Develop a system to signal the end of the harvest in each region and permission for animals to enter the fields.
  - c) Facilitate the development of manure contracts (Loofboro 1993).
16. Translate the Rural Code and the laws of implementation into the seven major languages of Niger—Hausa, Djerma, Tamashek, Fulfuldé, Kanouri, Gourmantché, and Arabic—and promote these texts through regional sensitization committees.

## 1. INTRODUCTION

Accelerating ecological and demographic changes in Niger, including diminished rainfall, expanding agriculture, population growth, and resettlement, have significantly increased the pressure on land and profoundly affected the relations between agriculturalists and pastoralists. Conflicts in rural areas, increasing in both number and severity, center around the competition for scarce resources and have highlighted the need for a new look at the rules governing access and ownership of natural resources.

The regulation of land matters in the country is complicated by several overlapping systems of law and custom as well as by regional socioeconomic and ethnic differences. Since the early 1960s, there has been recognition of the need for some broader, more integrated system for managing natural resources (Dunbar 1990, p. 2; CNCR 1989) in order to prevent devegetation and soil erosion and deal with inequities of access in rural communities. In view of the current trends of social conflict and land degradation, it is essential to address such problems before they escalate.

The National Rural Code Committee (*Comité National de Code Rural*, CNCR) of Niger, under the supervision of the Ministry of Agriculture and Environment, is endeavoring to find a "set of nationally applicable and regionally equitable standards and procedures" (Delehanty 1992) that will address existing tenure conditions and conflicts as well as facilitate a program of natural resource management. These efforts at increased security and environmental protection are intended to promote investment in the agricultural sector while empowering producers in the political arena (CNCR 1989). Understanding the importance of indigenous support in implementation, the Rural Code Committee has a stated commitment to interpret and support local resource custom and to strengthen local institutions to enforce this law.

Recent research suggests, however, that customary law, as it is typically understood, has been seriously altered as a result of changes introduced in this century by the colonial and

independent governments (Ngaido 1993; Dunbar 1990; Caverivière 1989), and that the reconciliation of competing local traditions and rights may prove a formidable task. Beyond failing to incorporate important recent changes in land access, there often is no provision in customary law for important sections of the population, including pastoralists, civil servants, immigrants, and women. Considerable attention to women and their importance in agricultural production has not been incorporated in documents produced by the regional committees or in the new Rural Code. Successful implementation of these laws depends on careful consideration of the aspirations and constraints faced by all users of land and natural resources.

This study, undertaken between September and November 1992, attempted to gather locally based data in support of the Rural Code and the laws of implementation. Research focused on the structure of resource allocation, access, and management within a multiethnic, agropastoral region in Téra, western Niger. The results indicate significantly differentiated access to natural and human resources, based in part on household capability, but more importantly on definitions of social identity, including ethnicity and gender. These identities are linked to different kinds of rights or constraints and have much to do with how land is acquired, managed, and controlled. The presence of intraregional differences also suggests the importance of "disaggregating" rural communities and of considering the effects on subgroups of the population when interpreting or implementing standards and policies.

This report is organized in five sections, including the foregoing introduction. In section two, a brief ecological and socioeconomic description of the region is provided. The third section is a discussion of methodology, including site selection and field techniques. A detailed analysis of some of the major issues affecting land access and resource management in the study area is presented in section four. Finally, in section five, the discussion and recommendations suggest areas of policy reform related to land laws, natural resource management, and rural development.

## 2. STUDY SITE

The arrondissement of Téra is located in the Tillabery Department on the west of the Niger River (figures 1 and 2). It shares a border with Mali to the north and with Burkina Faso to the west. Like the rest of Niger, the climate is Sahelian, characterized by high temperatures and low rainfall which is extremely variable over both time and space. A single rainy season occurs between June and September, and precipitation ranges from 600 millimeters in the south to 300 millimeters in the north (Niger 1991, p. 1). Annual rainfall has shown a general decline for the past fifty years (Hagen et al. 1986, p. 13).

Téra covers an area of more than 20,000 square kilometers. Most of the soils are nutrient-poor and sandy, and a belt of dunes runs from west to east across the center of the region. Drought and the intensification of land use have destabilized some of these dunes, threatening pastures and *mares*<sup>1</sup> with excess sand deposition (Ottens and Huisman 1991, p. 3). The Niger River, which flows for 160 kilometers in the arrondissement, and its three tributaries—the Dargol, the Sirba, and the Gorouol—are the regions' most important water resource. The latter are intermittent and flow only during the rainy season. More than twenty-five *mares* exist, both permanent and semipermanent, often located between dunes. A dam, completed in 1980 through the cooperation of the Republic of Niger and the People's Republic of China, created a permanent reservoir in the commune of Téra. Access to the water is officially open only to residents of the commune, presumably in order to better regulate reservoir levels and surrounding land use.

The arrondissement is inhabited by more than 300,000 people (1991), 60 percent of whom are Songhai. Several very dispersed Fulani groups are found in the west toward Burkina Faso, and Bella, Hausa, and Gourmantché are concentrated in the south. Historically, Tuaregs moved with their animals in the northern pastoral zone, though many

---

1. Shallow depressions which are permanently or intermittently filled with rainwater.

have sedentarized and/or moved south since the drought of 1984. Much of the population of the region is clustered along the banks of the river and in towns bordering the single laterite road, which is often in a severe state of disrepair (figure 3).

Agriculture, principally the cultivation of millet, cowpeas, and sorghum, is the primary economic activity in the zone. Although most people own a few head of livestock, even in the south, pastoralism is particularly important in northern Téra, where land is poorly suited for rain-fed agriculture. Dry-season horticulture has been successfully promoted by the national government. The limited resource base and periodic drought, however, have forced a diversification of economic activities in the region, and most people employ a variety of strategies to meet subsistence needs. Internal labor migration and rural exodus are increasingly important economic activities.

The responsibility for resource allocation or management and conflict resolution in the arrondissement is complicated by three different coexisting administrative structures. Téra is divided into five cantons (Téra, Kokorou, Gorouol, Diagourou, and Dargol) and three nomadic *groupements* or "groupings"—one is predominantly Fulani (Gaobé), and the other two, Tuareg (Doufrafrac and Tinguéreguedesh) (figure 4).

(1) Most villages fall within the hierarchical territorial organization of cantons and *départements* and are administered primarily by the traditional authorities of the village chief and, above him, the canton chief.

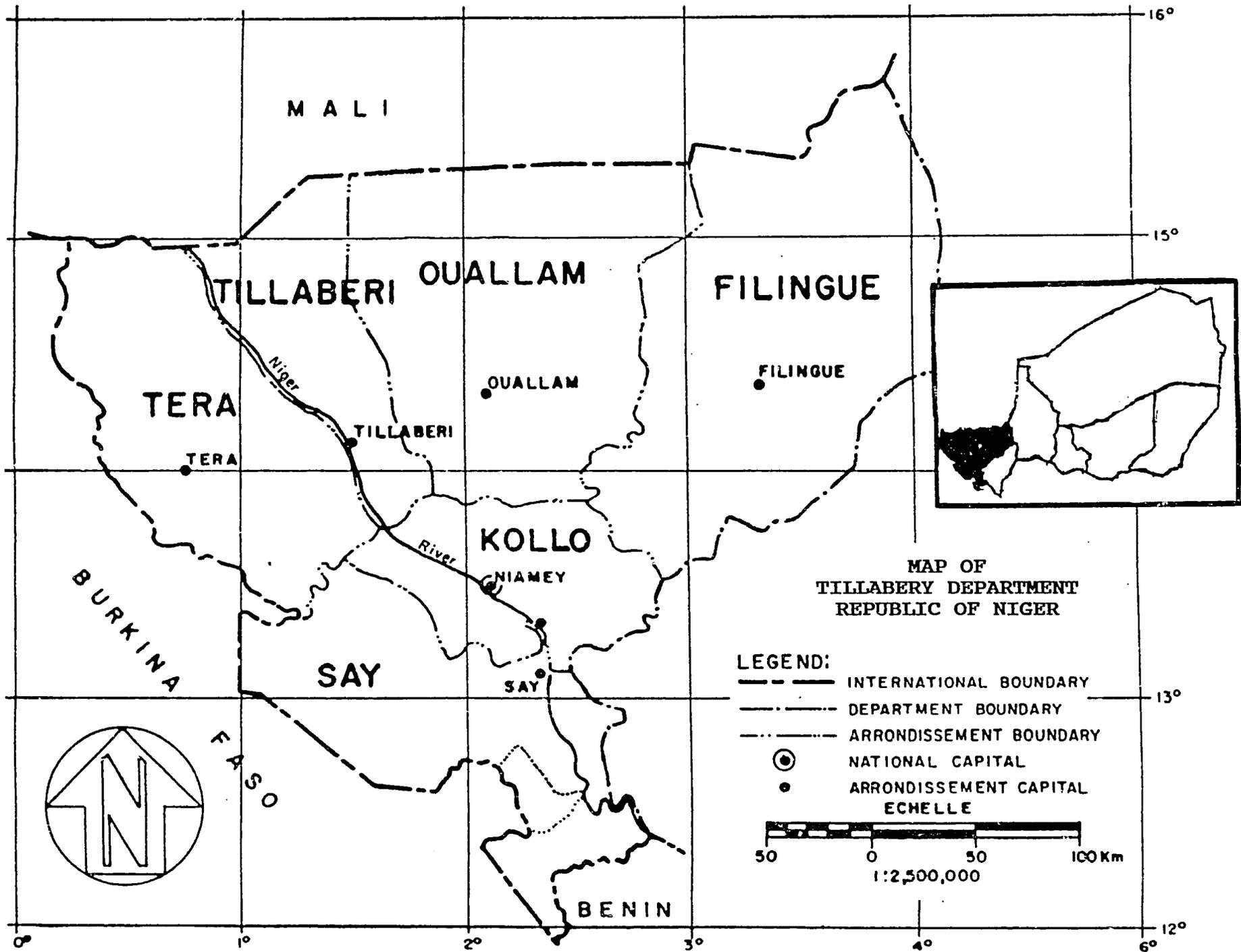
(2) The commune of Téra is significantly more complex than the others due to trends of migration and settlement. It is comprised of six *quartiers* (separate villages until the creation of the mayor's office in 1988) and three villages.<sup>2</sup> Both customary and modern authorities have jurisdiction.

(3) The third type of structure, the *groupements* of traditionally nomadic groups, is administratively separate from the canton though often located within the canton

---

2. The *commune* of Téra includes the town of Téra and three villages (Doumba, Harikoka, and Begourou-Tondo) located within its 15-kilometer radius. In this report, *quartiers* will be referred to as neighborhoods, though this is not a precise translation.

boundaries. One important distinction is that a *groupement* is not spatially—but rather socially or ethnically—defined and has no circumscribed territory. The problems of this arrangement are discussed in the section on conflict resolution (4.5).



Source: Hagen et al., 1986.

Figure 1.

# ARRONDISSEMENT DE TERA

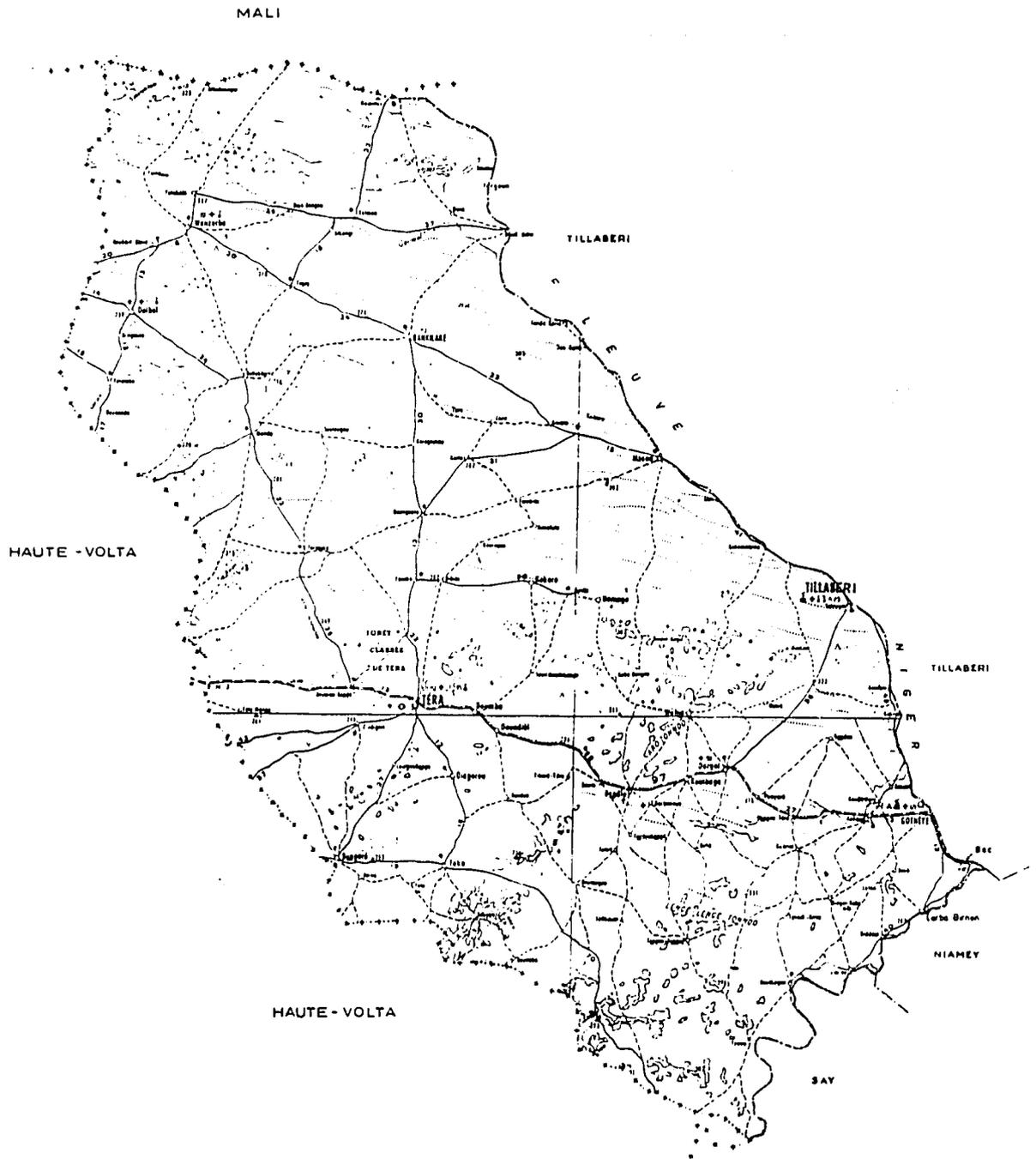


Figure 2.

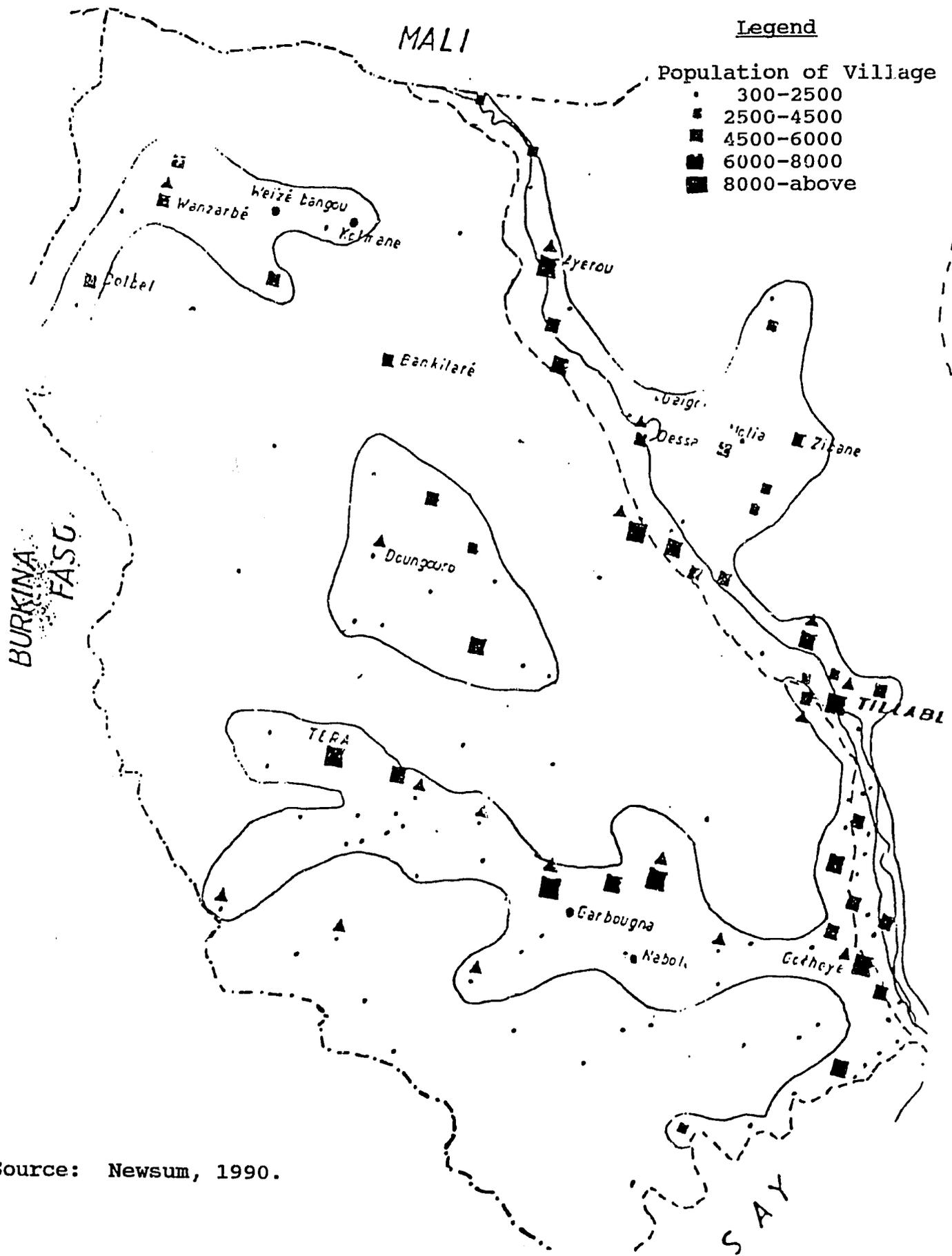
Extrait Carte 1/750 000ème  
Institut Géographique National

Service Topographique  
NIAMEY

BEST AVAILABLE COPY

POPULATION DENSITY IN THE ARRONDISSEMENT

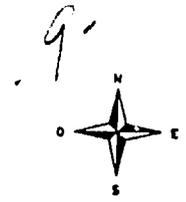
46



Source: Newsum, 1990.

Figure 3.

# ARRONDISSEMENT DE TERA



MALI

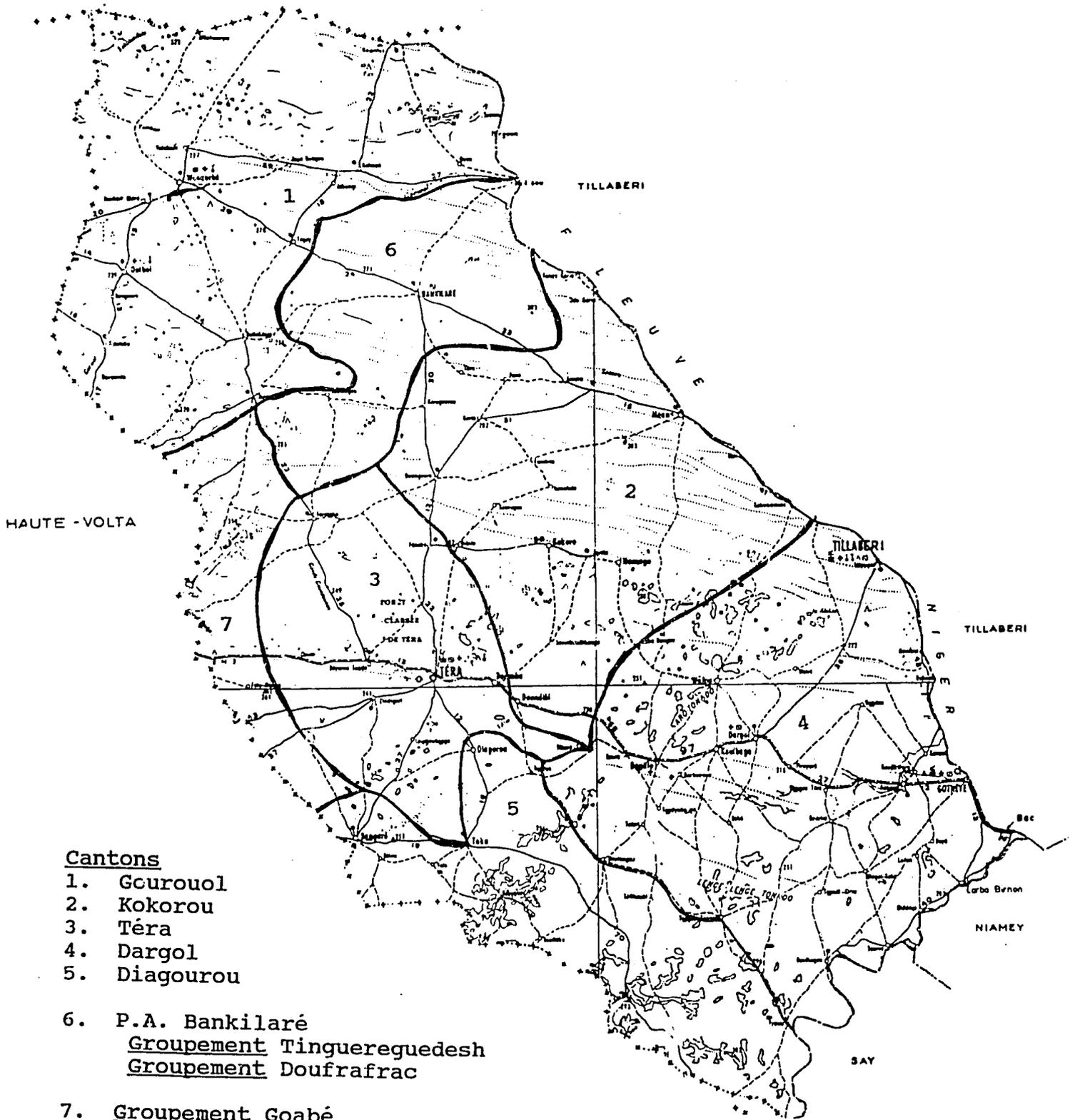


Figure 4.

### 3. METHODOLOGY

#### 3.1 SITE SELECTION

Field research conducted between October and December 1992 is the primary source of information for this study. Several factors were important in the selection of sites. Since local power structures and authorities directly affect allocation and management of resources, it was important that each of the three administrative structures described above was represented. In addition, ethnic diversity, presence of agriculture and pastoralism, and ongoing conflict were significant considerations. Three sites were chosen: the commune of Téra, the village of Diagourou, and the *groupement* of Charim. Together, the three sites reflect a full complement of the major ethnic groups and economic activities in the region, with one exception. Due to continued political insecurity, all villages in the northern pastoral zone were inaccessible, and the problems of seminomadic pastoralists are not directly considered. Focusing on the southern half of the arrondissement, this report discusses livestock management associated with sedentary and semisedentary agropastoralism. Sites with ongoing foreign development projects were excluded.

Both the size and the infrastructure of the Téra commune made it an obvious choice as a research base. Located in the geographic and administrative center of the arrondissement, Téra has a population of more than 30,000 and is the most ethnically and economically diverse area in the region. The dam-created reservoir is the only permanent water source and has a significant effect on resource use in the region. In addition, several co-ops and national associations are represented in Téra.

Diagourou, located 12 kilometers south of Téra in the canton of Diagourou, is a traditionally agropastoral region populated primarily by Fulani and Songhai. It is the only region with a Fulani canton chief. The village is only about 25 kilometers from the border

of Burkina Faso, across which there is a long history of transhumant migration and sharing of pastoral resources.

Tuaregs and Bellas are the historical inhabitants of Charim, a settlement 30 kilometers to the north of Téra established by the *groupement* of Tinguéreguedesh, though several families of Fulani and Djerma have moved in more recently. In the past, Bella slaves cultivated crops for the nomadic pastoral Tuaregs, but both have settled, coexisting since the abolition of slavery.

For the purpose of this report, and in recognition of the size and influence of the commune with respect to the surrounding region, Téra is generally referred to as "town," and other villages, as "rural" areas. It is, however, not a precise distinction.

### **3.2 Field methods**

Semistructured interviews from defined groups, using an interpreter/field assistant, were designed to gather both qualitative and quantitative information on historical and ecological conditions, activities of production, access to and use of resources, and conflict. The questionnaire was formulated in three sections, which correspond to the three-part protocol described below. Field methods, however, were somewhat flexible, and the questionnaire was not always rigidly followed but appropriately modified to fit the situation.

The purpose of the research was to understand changing land use patterns and their implications for the social, ecological, and productive systems. This may be expressed as three linked objectives:

- (1) to identify different patterns of resource use by subsections of the population—defined by age, gender, and ethnic group—and ways in which land use, access, tenure rights, and resource management have changed over time in response to drought, migration, sedentarization, legal reform, or other factors;
- (2) to evaluate the peri-urban relationships between the arrondissement seat (the commune of Téra) and surrounding villages; and

- (3) to identify the locations, participants, and sources of land-use conflicts as well as the methods or persons involved in resolving disputes.

The sites of Charim and Diagourou were visited twice, first for two or three days and then for four or five. Discussions began with the canton and the village chiefs and were followed by exchanges with groups of old men, young men, old women, and young women. A second visit focused primarily on interviews at the *concession* or "household" level.<sup>3</sup> Men and women were questioned separately to gather data on individual or family use and to crosscheck the information previously received. A similar process was followed for each of the six neighborhoods of the commune of Téra, though we returned home each night. No attempt was made to gather household data from the three villages in the commune. A total of 157 men and 170 women were interviewed at three sites. Household data from three neighborhoods of Téra were lost,<sup>4</sup> though qualitative impressions suggest that it is consistent with results from the two neighborhoods presented here. Persons not easily categorized, such as *bergers* (hired herders), women holding office or wealthy in livestock, and village historians, also provided valuable information.

Timing was something of an issue; although harvest is an ideal time to study agricultural-pastoral interactions and conflicts, it was often difficult to find people near their homes. In some cases, an elder member of the family spoke for the economic activities of other men or women in the household.

All of the site visits were preceded by extended meetings with local and regional officials. As the arrondissement seat, Téra is home to the *sous-préfet*, five *chefs de service*, the mayor (head of the commune), and several international development, commercial, and livestock organizations. These persons were individually interviewed in French.

---

3. Household is a somewhat problematic and ambiguous concept. It can refer to social groupings ranging from the nuclear family to several parents, uncles, and cousins. In this study, "household" refers to a single production/consumption unit, though members may reside with several similar units in a camp. No comparisons of household size will be attempted.

4. Some field notes were apparently lost between departure from the field site and arrival in Wisconsin.

Direct field observations were made, and activity calendars and maps were prepared based on informants' responses. Written accounts on Téra are scarce, though some annual reports were made available through the *chefs de service*. Secondary literature on Nigerien history and geography, ethnographies, and land use and tenure theory were actively consulted, as were project and study reports from the US Agency for International Development (USAID) library.

## **4. LAND USE AND NATURAL RESOURCE MANAGEMENT**

### **4.1 THE STRUCTURE OF LAND ACCESS AND CONTROL**

Several overlapping and conflicting systems of land tenure or control in Niger, including customary law, regulations dating from the French colonial period, and rules of the independent state, complicate land and conflict management (Dunbar 1990, p. 2). Work in the Kollo and Tillabery arrondissements on the nature of land conflicts (Ngaido 1993) illustrates how these competing systems result in considerable confusion over rights at the village level.

Equally important, then, is a detailed analysis of how different laws and policies have altered the structure of traditional land access and control. Further, it is necessary to examine the effects of these changes on particular groups of the population. Understanding who holds different rights and how these rights are constituted has important implications for considerations of equity and for the management of natural resources. Additionally, it gives a preview to the potential types and sources of land conflict in the near future.

Goldmark (1977, p. 1) suggests that "each village's current land tenure practices are a reflection of distinct historical, religious, and economic forces" resulting from the varied adoption of legal reform, Islamic codes, and realities of different modes of production. However, research in Téra suggests that ethnicity and gender are equally important determinants of rights to land and other resources. The history of migration to the region has also been a key factor defining each group's methods of access and control of land. This study will consider how social identities form a framework for land and resource rights and how, based on social status, people justify these claims.

The following sections are organized around the particular principles, deriving from both law and custom, that define methods of access to land. The prevalence of ethnic conflict, however, necessitates a recognition of certain social issues throughout this presentation. The section begins with a brief review of the literature on the history of

customary law and legal reform. This is necessary to set the context for findings from research in Téra as the distinct principles of customary law are not often articulated by traditional authorities. Data-driven sections will follow.

#### 4.1.1 HISTORICAL CONTEXT OF LAND TENURE PROBLEMS

Traditionally, a group's relationship with the land began with the founding ancestors who first cleared the land and dug the wells. Most villages were formed by one or more families, which began cultivating virgin soils. The transformation of land from "wilderness" and the adding of value through cultivation (*mise en valeur*) established the right of the group to occupy and use the land.

In fact, the right to clear and produce (*droit utile*) was always distinguished from control over land (*droit eminent*) (Goldmark 1977, p. 5; Yaroh et al. n.d., p. 2), which was typically vested in the collectivity. The founder and, following his death, his descendants were considered *maîtres de la terre*, or village chiefs, and had political and religious authority (Goldmark 1977, p. 5) to allocate farmland, manage use, and accept or reject new immigrants (Murphy and Bledsoe 1988, p. 87).

Villagers inherited rights to land through the patriliney and acquired additional land by asking the chief. Subsequent settlers, however, were politically dependent on the founders for borrowed land. A gift or portion of the harvest, known as tithe, often symbolic, was given to the owner or chief as a recognition of temporary use right.

Islam further legitimized control through labor, recognizing a distinction between land that is "alive," that is, under cultivation, and "dead," or belonging to the community. Pasturing animals apparently was not enough to activate land, and after seven years, families lost all rights to unused land (Goldmark 1977, p. 8; Yaroh et al. n.d., p. 4). Informants in Téra maintained that this reversion/withdrawal was formerly true; today, however, land always remains in the family, regardless of how long it has been abandoned.

Although it is well established that *mise en valeur* and Islam bestowed a certain right of possession, the development of ownership rights and family tenure is less understood

(Yaroh et al. n.d., p. 4). The introduction of cash crops, salaried labor, and sale of land under French political and economic rule, however, disrupted traditional custom (Goldmark 1977, pp. 1-2) and may have introduced the concept of private property (Yaroh et al. n.d., p. 18). While one author claims that private ownership of land did not exist in Niger prior to land registration (UNESCO 1972, p. 1), Goldmark (1977, p. 5) suggests that demographic pressures, increasing competition for land, "and following the laws of economics, its value" led to a family-oriented system where land remained in the extended family and was inherited: "The amount of land one received was no longer based on need but rather on family connections." The elimination or replacement of troublesome indigenous authorities, often with those lacking historical legitimacy, along with privileges given to loyalists, such as control of the best land and power to oversee it, further strengthened this evolving system (Isaacman 1989, p. 36).

#### **4.1.2 CUSTOMARY LAW AND THE IMPORTANCE OF BEING FIRST: RIGHTS OF INHERITANCE**

The Songhai are clearly the dominant group in Téra not only by their population—60 percent for the region and certainly proportionally higher in the south—but also by their control over land based on the principles of customary law. Originating somewhere in the empire of Gao in Mali, the Songhai are accepted as the first settlers of Téra due to a large-scale migration that began in the fifteenth century, though they were probably preceded by Tuareg and Fulani herders (Goldmark 1977, p. 3). As sedentary agricultural and fishing peoples, they settled in the southern half of the arrondissement in hamlets, which eventually grew to villages. Three of the neighborhoods of Téra carry the names of nearby villages.

The attainment of firstcomer status by the Songhai is central to their control over agricultural land in the region. The concept of "being first" is the cornerstone of customary law and is based on a belief in a dependence on the ancestors and a special ritual relationship to the land and its spirits (Kopytoff 1987, p. 53; Yaroh et al. n.d., p. 2). Selling land—bidden by customary law—would sever the relationship between the present cultivators and their ancestors (Goldmark 1977, p. 6) and would "bring shame," according

to the canton chief of Téra. It may begin to explain why a history of migration, or a chronological ordering of the village's arrival vis-à-vis its neighbors, is often the first answer given when a chief is asked about customary land law.

Clearly, precedence is not "an absolute fact of chronology," referring more to first clearing than first use (Kopytoff 1987, p. 56). Nevertheless, it provides a "hierarchy in which resident 'firstcomers' could claim superiority over immigrant 'latecomers'" (ibid., p. 31). Thus, we begin to see the importance of ancestors; one gets access to sufficient land through one's relatives, or, should this prove insufficient, by appealing to the *chef* as a Songhai. The Songhai are clear about the rules of land allocation to "outsiders": land may not be sold or gifted. It may only be loaned. The chief of Begourou noted, "We all cultivate where our ancestors did. The land belongs to our ancestors. It cannot be given to strangers." Sixty-two years after founding the hamlet, the Fulani in Begourou-Tondo continue to borrow land from the Songhai.

Songhai control over land in the region was greatly aided by the advent of the French colonial system. Unable to "co-opt" traditional power structures because of the absence of centralized states (Goldmark 1977, p. 4), the French created new political divisions (cantons) and appointed chiefs to oversee them. These chiefs were given power, like the customary authorities who preceded them, to allocate land and collect tithes (ibid., pp. 10-11). Mariko (1975, in Ngaido 1993) notes that "the French, by using them to administer the local population, transformed these village chiefs into real landlords with the power of granting and withdrawing use rights." All but one of the chiefs in the arrondissement of Téra are Songhai.

By the principles of customary law, only Gourmantché (the actual firstcomers) and Songhai would have rights to land in the Téra region. However, institutional changes introduced by the newly independent government in the early 1960s aimed to increase central power and to "reduce the political and economic power of traditional chiefs derived from collaboration with French colonizers" (Ngaido 1992, p. 3). Second, different land laws, decrees, ordinances, and *circulaires* were designed to improve equity and expand the landed base of support.

While these changes may be the source of much confusion and conflict in rural Niger today, they provided many nontraditional users with methods for acquiring rights to land. Nearly everyone in Téra—regardless of heritage or status—speaks of ownership, not of use-rights.

#### 4.1.3 LAND TO THE TILLER: RIGHTS OF USE

Following the military coup in 1974, President Kountche assigned ownership rights to all farmers to the lands they were cultivating, regardless of the previous tenure arrangements (Ngaido 1993).

About fields, the first measure is that from this declaration on, any field cultivated by a given farmer under any title, stays and remains permanently at the disposal of that farmer, regardless of the previous arrangement that allowed that farmer to acquire the field.

In taking this decision, we aim towards one goal: to insure a maximum of security to the farmers on the fields they cultivate which they end up making their only wealth, without being always able to escape the moods and the abuses of certain grumpy owners, ready to speculate on these same lands which they do not want to develop nor to cease (Seyni Kountche, quoted in Ngaido 1993, p. 7).

Intended to foster development of the agricultural sector and to resolve tenure conflicts caused by legal changes in the 1960s, this decree and the notion of "land to the tiller" opened a huge window for many persons denied ownership rights through customary law, including Bella, former pastoralists, and immigrants. It is, perhaps, the greatest source of current conflicts over land ownership. (Note the chart displayed in table 1.)

The table indicates that all four camps of Bella in Charim (one of which represents more than twenty-five men) speak of some ownership of the land. None claim, even in the presence of the Tuareg chief, to have borrowed land. Borrowing was claimed only by one Tuareg and two Fulani families who had immigrated after the drought of 1984. Yet slaves, expected to cultivate for their masters, were not permitted to own land under customary law (Goldmark 1977, p. 6; Yaroh et al. n.d., p. 16). Even after slavery was outlawed in 1905, many Bella remained in subordinate relationships since they were not allocated enough land to survive (Goldmark 1977, p. 10). It is suggested that Bella, holders of long-term use-

rights, received ownership of the land in 1974; determining the accuracy of this proposition depends on understanding how the land was acquired and how ownership is justified.

TABLE 1  
Structure of family landholdings in Charim

ETHNICITY OF INFORMANT	TOTAL FIELDS OWNED (OW) OR BORROWED (B) BY INFORMANT	FIELDS CULTIVATED	FIELDS LOANED TO OTHERS	LOANED LAND RECOVERABLE ?	TITHE PAID OR RECEIVED
Tuareg	15 (ow)	2	13	no	no
Tuareg	13 (ow)	2	yes	?	?
Bella	2 (ow)	2	---	---	---
Tuareg <sup>a</sup>	++ (ow)	1	yes	no	no
Tuareg	10 (ow)	3	7	no	no
Tuareg	2 (B)	2	---	---	no
Tuareg	7 (ow)	2; 2 <sup>b</sup>	1	no	no
Tuareg	4 (ow)	2	1	no	no
Fulani	2 (B)	2	---	---	no
Bella	4 (ow)	3	no	---	---
Djerma	3 (ow)	3	---	---	---
Djerma	2 (ow)	2	---	---	---
Bella	4 (ow)	2	no	---	---
Tuareg	3 (ow)	2	no	---	---
Tuareg	9 (ow)	2	3	no	no
Bella <sup>c</sup>	++ (ow)	---	no	---	---
Fulani	1/2 (B)	1/2	---	---	no

Sample size: 17.

- a. Family of the chief of Charim. Informant did not wish to divulge the exact number of fields but indicated that he owned "many."
- b. Fields are fragmented. Informant and his nephew each cultivate two fields.
- c. Family is comprised of more than 25 men. Informants suggested that an average of 2 fields was owned by each man.

Much of the land is concentrated in the hands of Tuaregs, with average ownership of 7.9 fields and average use of 2.2 fields. The remainder of each Tuareg family's landholdings

were loaned or rented and have been occupied by Bellas for many generations. Indeed, a substantially lower average control over fields<sup>5</sup>—3.3 by Bellas, 2.25 by Djerma, and 1.25 by Fulani—may indicate that these families never controlled large areas of land and simply borrowed what they needed. In all probability, their privileges were assigned as use-rights.

However, much of the land claimed to be loaned by Tuaregs is considered owned by Bella occupants. Tithe in any form has not been paid "for about thirty years," a date that roughly coincides with the 1960 law (*Loi 60-29*) that prohibited all tithe and *achoura* payments (UNESCO 1972). All Tuaregs who claimed to have loaned land to Bellas believe themselves unable to recover that land due to the length of occupancy and the nonpayment of tithe. Long-term use-rights have been converted into ownership rights based on the principle: "The land belongs to him who works it." When asked of traditional land law, the chief of Charim responded, "Do not speak of customary rights. The customary rights I knew were destroyed by the government."

Furthermore, the language used to justify ownership claims provides considerable insight. While Tuaregs in Charim claim their land is "inherited," usually from the ancestors, Bella consistently use the expression, "the land is my father's." Both Djerma families in Charim claim to have inherited "from my grandfather." None speaks directly to the law, yet neither are they directly claiming rights under traditional law and the principle of first occupation. In fact, "my father's land" asserts no explicit rights (unlike Tuareg and Songhai claims), beyond ones of use, and may in fact refer to the period in time, generationally, at which those rights were converted under legal reform.

Although *mise en valeur* and land to the tiller refer specifically to an agricultural use of land, a similar situation exists in Diagourou, where all Fulani informants (33) assert ownership of the land they use. Although they were granted canton land by the French, their claims of ownership always refer first to the ancestors. In fact, they claim the French simply gave back the land they were already occupying. They are referring, in fact, to their use of

---

5. Field size is fairly constant within the community.

rangeland, for it is only recently that the Fulani have been cultivating on a significant scale. The expression, "the land is of my ancestors," indicates a long history of ancestral use, which legitimates (in their view) a transformation of seasonal or occasional grazing rights to permanent rights of occupation. The Songhai, in contrast, claim the land is theirs under the principle of first occupation, since their hamlets existed for several decades before the village of Diagourou. It is worth noting that the only two men believed able to recover loaned land continue to receive tithe.

#### 4.1.4 REACTIVATION OF "CUSTOMARY" RIGHTS

Conflict over rights is particularly intense between Fulani and Songhai in Diagourou. Both claim ownership rights and control over the village territory, though the canton has, for 70 years, been administered by a Fulani chief. This seems to belie the Songhai claim that "the Fulani have no land." Yet, the Songhai argue that their ancestors arrived first, and that their claims date "before the whites" (*avant les blancs*). This statement refers not just to a particular point in time, but to a set of social and political relations that existed before colonial interference. They are suggesting that their traditional authority cannot be replaced, ostensibly by "appointed" Fulani. Their claims are perceived to be "natural" and grounded in a historical legitimacy based on their ties to the ancestors and a view to the village of origin. They continue to pay taxes to Téra, as they have for 135 years since founding the hamlets.

Indeed, Songhai settlements are expanding at a considerable rate, and hamlets are being established in what appear to be "empty" areas between villages. In fact, though these communities often occupy land at the periphery of the neighboring village, the Songhai continue to pay taxes and to seek authority in Téra. It is important to recognize that these vectors of extension are consistently toward non-Songhai villages—in other words, in the direction of peoples least able to justify or enforce their claims—for example, Gourmantché (Doumba), Tuareg (Arbouguay), Fulani (Diagourou).

Legal reform has aided Songhai expansion in the region. For forty years, the land outside the village of Téra remained uncultivated and was important for both village animals

and transhumant herds. Since the drought, crops have been planted, and the land is now nearly completely occupied by cultivation. Land farther away has been abandoned due to distance and failing productivity. Forty years nearly coincides with the law that devolved the power of land allocation to local authorities—all of whom are Songhai in the canton of Téra. It is perhaps no coincidence that all of this newly appropriated land is cultivated by Songhai.

Yaroh et al. (n.d.) suggest that the monopoly of land rights given to chiefs by the French provided the mechanisms for a superexploitation of land. This was followed by an extensive and rapid clearing of land that corresponded not to family need, but to the affirmation of authority over others and the refusal to grant them rights other than usage (Yaroh et al. n.d., p. 18). This appropriation of most of the vacant lands occurred at both the village and the canton level (Ngaido 1993, p. 5).

#### **4.1.5 EXCLUSION AND LAND AVAILABILITY: IMPORTANCE OF OCCUPATION**

Confusion over land rights and the prevalence of conflict has intensified a feeling of tenure insecurity and a mistrust of local officials to adequately resolve conflict. On the eve of the passage of the Rural Code, villagers both awaited the clarity of the law and feared a permanent loss of rights should they not achieve unambiguous control over land prior to legal reform.

Increasingly, villagers refuse to loan land for more than one or two years lest it result in the transfer of rights. Many cultivate small sections of pastureland to establish claim through both customary *mise-en-valeur* and land-to-the-tiller principles. Individual ownership includes the right to exclude, which threatens both long-term seasonal rights and immigrants' access rights to land. Raulin (1965, p. 122) notes the effect of this process on neighboring villages: "Villages will prevent a neighbor's use of land because they fear an aggrandizement of the village's borders; permanent hostility may be the choice to protect authority over land." Strained relations between the village of Begourou-Tondo and the neighborhood of Begourou (the latter refuses to recognize the "parental" ties) result from the village's denial of requests for land by the neighborhood, according to one informant.

Moreover, unused or abandoned land no longer reverts to the village or the canton chief after a specified time period (in the past, it would then be available for redistribution to residents or immigrants in need). In contrast to customary practice, rights of ownership are considered permanent regardless of the time the land lies unoccupied; land always remains in the family. In consequence, once the *terres de chefferie* are fully distributed, chiefs lose the power to allocate land, which restricts both access and availability to newcomers. Increasingly, land is borrowed from individuals rather than the village, which multiplies the problem of tacit agreements. Such exchanges are not often reported to the chief.

The right to exclude intensifies the problems of managing open space for pastoralism. In Téra, one stretch of land that remains bush borders the river and is one of two remaining corridors for animals on their way to drink. Recently, however, the owner has sent his sons to the land to chase away passing animals, preventing them from grazing. The land is not cultivated; it has never been cultivated. Nothing risks being damaged. The owner, by exercising his right of refusal, is clearly demonstrating his ownership—fearful, perhaps, that in the confusion, a tradition of use may be codified and made a permanent right.

#### 4.1.6 HORTICULTURE POLICIES

Policies pursued by the national government since 1984, and supported by the strong interest of donor agencies, have promoted dry-season horticulture to meet chronic agricultural deficits by increasing both the quantity and the quality of foodstuffs between harvests.

While gardening was practiced on inherited family plots long before the recent political campaign, it never attained the same degree of importance in village food production. In large part, this is due to new lands being made available for cultivation around *mares* and, particularly, along the river, where onchocerciasis (river blindness disease) was recently eradicated. In Téra, where completion of the dam created a permanent reservoir, 160-200 hectares of land was opened. Figure 5 indicates the nineteen blocks of land allocated to neighborhoods; plots were then distributed to individual families based on "time, knowledge, and physical ability." All other chiefs in the region have distributed land near *mares* or on the river. In more northerly regions, though supposedly well-suited for dry-

season gardening (Hagen et al., 1986), villagers say that the water does not last long enough to allow the crop to mature.

While some men do garden, women appear to be the primary beneficiaries of plots. Chiefs in the region differ on whether or not women are permitted to own gardens, though many women do claim rights of inheritance through mothers or grandmothers. Several other women have use-rights to an inherited plot through a father or brother. Newer plots were allocated to heads of families or, outside of the reservoir, to women themselves, but are not subject to permanent, transferable ownership rights. The *Femmes Commerçants* (business-women) of Téra also received thirty-four plots in 1988 from the canton chief and other customary authorities, which they allocate to members. The group is the owner of land, which cannot be passed to the children of users.

Gardens may be the one way that women get access to good land, sometimes permanent rights of use. This contrasts sharply with the insecurity associated with cultivating "borrowed" parcels within men's fields and the need to relocate or shift these plots every few years. Moreover, women often benefit from credit or donor programs denied them in other areas of production. In many areas, the land allocated for gardens has newly been made available (and is still owned by the chief), and the history of gardening is long associated with women. Often, it is a niche without significant competition from male villagers. Of the sixty-one plots allocated by the commune, fifty-three are cultivated by women.

In Téra, sixty of 88 women interviewed cultivate gardens, of which 28 are inherited, 19 were allocated by the neighborhood, and 13 are borrowed (presumably from family members) or used without permission. The number of inherited plots is probably inflated since inhabitants of one of the neighborhoods are descended from the original founders of Téra and the neighborhood is located right next to the *mare*. All women with inherited gardens considered themselves the owners. One woman's comment indicates the pervasiveness of the land-to-the-tiller idea: "Before, I didn't own land; now, it [the garden] belongs to me because I work it."

MAP OF THE RESERVOIR IN TERA

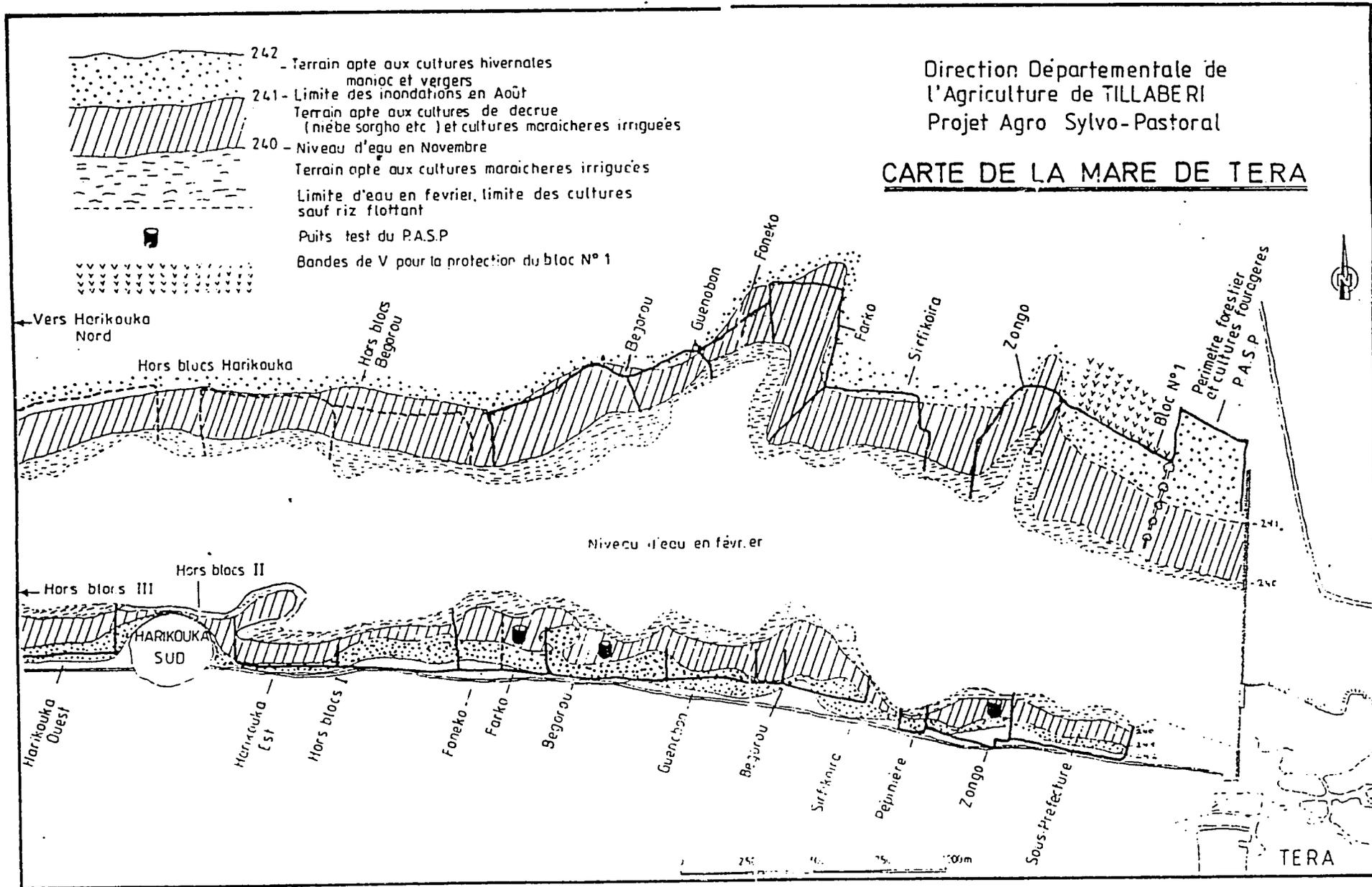


Figure 5.

22

Fulani women of Diagourou seem less predisposed to gardening (6 of 14), all of those who do garden having received plots from the village chief in the past 4-7 years. In fact, their access may be more difficult because of the higher percentage of men in Diagourou who garden, which pushes women to the far side of the *mare*, a considerable distance from the village. In Charim, dry-season gardening is impossible due to inadequate ecological conditions, but a few women plant in the *mares* during the rains. Interestingly, all 6 (of 49 women) are Bella. Each of them also cultivates parcels in family fields during the same period.

Repeated animal destruction is the most serious problem cited by women, since gardens are typically located at sources of water where livestock come to drink. Many more women in all three areas expressed interest in gardening, but were hampered primarily by the lack of fencing materials and the fear of fines by *Eaux et Forêts* for cutting thorny branches. Women typically protect their plots with millet stalks, but this fails to keep animals out for very long and may indeed attract small stock at the *mares*. *Bergers* are said to lead animals into gardens knowing women rarely levy fines. Interestingly enough, men do not have trouble gathering sufficient thorns, and men's and women's gardens in Diagourou are often recognizable by the type of fencing material. Access to branches is a serious issue for 92 percent of women interviewed and may suggest a significant form of restricted access to materials based on gender.

## **4.2 THE ROLE OF LABOR MARKETS**

### **4.2.1 AGRICULTURAL LABOR**

Access to land forms only one part of a family's production needs. The ability to mobilize sufficient labor power at critical periods of the agricultural cycle—either from within the family or by hiring laborers—is crucial to reducing subsistence risk, particularly for families in chronic agricultural deficit. It is also clear that both labor shortages and labor arrangements in the region affect and are associated with each family's access to resources and ability to avoid conflict.

The fragmentation of fields (and thus of the productive unit) and increasing migration of male labor out of the rural sector reduce the opportunity to engage relatives and may result in increased subsistence risk. Twenty-four percent of male respondents in the study area explicitly cite labor shortage as an obstacle to increasing agricultural production. No one claimed to be cultivating more land than they had ten years ago. Due to the division of land within families and nonrecuperable "loans," several were actually cultivating less.

Hiring agricultural labor may be a way to deal with scarcity of land availability, on the one hand, and tenure insecurity, on the other. Where it is no longer possible to increase production by clearing more land, paid agricultural labor allows people to intensify cultivation on the land they already hold. Moreover, it increases the labor force so land does not lie fallow or temporarily abandoned, at risk of being usurped. In Charim, five farmers were forced to fallow land due to a lack of labor or resources. None had the means to hire help in the fields and all expressed fear that leaving their land uncultivated for more than three years would result in the loss of their rights.

A significant difference between the numbers of Songhai and Fulani men who reported hiring agricultural labor provides opportunity for some speculation. Although both the number of fields cultivated and the number able-bodied men in the family are similar, seventeen of twenty Fulani men in Diagourou hired help, while only two of nineteen Songhai in Téra did so. Pastoral labor requirements (there is no *berger* in Diagourou) do not easily explain the contrast. The intensification of Fulani cultivation with a higher proportion of paid labor may be a response to exaggerated land conflict in Diagourou and a greater sense of tenure insecurity. In contrast, the Songhai have greater representation through traditional authorities and may not feel the same pressure to establish or confirm rights through a continual *mise en valeur* of their land. Alternatively, this situation may be explained by the Fulani's greater access to livestock, which can be sold in order to hire labor; this answer, however, does not address the reasons they choose to do so.

In addition, the lack of coordination in readmitting livestock to the fields has shortened the effective harvest period and increased the number of conflicts resulting from animal

damage. There is no official procedure for determining an entrance date. Farmers who finish the harvest first are eager to release their animals to graze; those who run later may risk losing much of their crop to animal destruction. Some farmers report sleeping in the fields to protect their crops from animals and impatient *bergers*. Labor shortage, however, rather than natural conditions, may have much to do with significant interregional differences in harvest completion; the inability to mobilize sufficient labor extends the time required and increases vulnerability to conflicts. Bella and Djerma women, involved in the harvest as well as the seeding of family fields, often noted that the delay in harvesting their own plots would probably cost them a substantial portion of their crop.

#### 4.2.2 PASTORAL LABOR

The growth of wage-herding (or share-herding) in many areas frees up household labor for work in the fields, particularly during critical periods of the agricultural cycle. In rural villages, like Charim, men may practice a seasonal strategy of hiring a *berger* at the start of the rains and taking back their animals after the harvest to graze in the fields under the supervision of children (6 of 17); only two men—both with many cows—keep animals with the *berger* year-round. Women's animals are typically kept with their husbands or relatives and form part of this pattern. Clearly, the rainy season is a labor-intensive time for many, a time when many families depend on their children in the fields. According to most men, hiring a herder is necessary to keep animals away from the crops and thus to avoid conflict.

In town, where animals are not permitted to wander unsupervised, *bergers* are a critical resource for women and young men who do not have access to the labor of young sons. In Téra, 15 of 19 men own animals; 6 of 15 keep them with the *berger* year-round. The others, with less than 1-2 goats or sheep, keep small stock in the compound where they are fed with stocked residues or grasses purchased in the market (47%), and thus do not rely on access to pastoral labor. In contrast, 62 of 90 (70%) women in town have animals; all are kept with the hired herder, regardless of whether these are cows or small ruminants. All women expressed a need to keep animals separate from those of their husbands in order to

retain control over management and sales; time constraints prevent them from supervising animals themselves.

Moreover, in areas where available pasture is constricted, hiring a herder removes the livestock owner from the burden of finding sufficient pasture, an issue of particular importance to women who do not have access to land. In all cases, it is the *berger's* responsibility to find available land, and they may lose customers if the health of the animals suffers. A villager in Sirfakoire, even after noting the lack of adequate pasture near Téra, threatened to sell all his sheep and goats because the *berger* was "not worth the money," returning animals hungry after only one hour. Similarly, in Charim, one man explained his preference for keeping animals with a hired herder year-round: "The *berger* is easier. He digs the wells; he finds the pasture."

There is, however, a problem of accountability in separating landownership from livestock management, particularly when animals managed by the *berger* are responsible for the destruction of crops. Livestock owners are required to pay fines, not the herder, who often denies responsibility for the infraction. Charged only to find fodder, and not accountable for the way in which they get it, *bergers* may serve to increase conflict within communities.

Moreover, as immigrants (14 of 15) with low status and little access to land, *bergers* have no political power to protect pasture or water resources. When routes are constricted, they must move on. One *berger* claimed that the same men who hired herders also planted in the livestock corridors—they could cultivate all their land and make the task of finding pasture someone else's problem. Again, the separation of landownership from livestock management and the low status of hired herders may explain the difficulty in maintaining livestock corridors and pasture, though everyone recognizes the need to do so. It is a serious zone of conflict.

### **4.2.3 RURAL EXODUS**

Rural exodus for wage labor is an increasingly important factor in rural self-sufficiency; it supplements incomes outside of the agricultural/pastoral sector and decreases dependence on household resources. Schwarzmeier and Grimm (1989, p. 42) suggest that in 1988/89, 50 percent of men in their study area of Gaya were on exodus during the dry season, and 80 percent of families had at least one member gone from the household.

Exodus appears to be most important where land is scarce and politicized, and future access for young men, tenuous. In many cases, it is not a seasonal strategy for wage labor, but a semipermanent response to diminished access to resources in the rural sector. Ten of nineteen families in Téra reported between one and four men abroad. Many had been gone for four or five years. One-half the Bella families (2) in Charim reported a total of eleven men in Cote d'Ivoire; significantly, only one of sixteen Tuareg families had a family member on exodus. This seems to indicate that certain ethnic groups have greater difficulty gaining access to land for young men.

The loss of the active male population not only affects a family's labor capability, but also represents a loss of training in the agricultural or pastoral sector. Many young men are uninterested in returning to the land after several years abroad. Others, returning after an extended absence, will find their land cultivated by someone else.

### **4.3 TRANSFER OF HERD MANAGEMENT AND OWNERSHIP**

Livestock losses during recent droughts, diminished quality of pasture, and government policies favoring the agricultural sector have led to a sedentarization of pastoralists within "agricultural" zones. Moreover, a transfer of ownership to women and wealthy herders following the droughts represents a significant departure from traditional pastoralism to a more intensive form of livestock management. These changes have important implications for the management of natural resources and the resolution of conflict.

#### 4.3.1 INTEGRATION OF AGRICULTURE AND PASTORALISM

Pastoralists in the region, forced by drought losses in 1973 and 1984 to diversify their subsistence activities, have begun or intensified cultivation for greater economic security. Although agriculture has always been an intermittent strategy of risk management, permanent sedentarization within pastoral territories or in villages and towns may be unprecedented. Efforts to reconstitute herds have not been successful. Many pastoralists recognize the increasing difficulty of supporting their families, and wish to take advantage of infrastructural and economic opportunities in administrative centers. Consequently, the number of animals concentrated in or near zones of cultivation has altered land-use patterns and increased conflict between livestock owners and farmers. Moreover, the active colonization of "vacant" spaces for agriculture has diminished pastoral resources and closed off access to water points.

Even in the north, where livestock have traditionally been a greater part of the economy, pastoralists have ended transhumant movements, primarily for fear of losing use-rights to the land they currently occupy. National government policies have strongly discouraged pastoral mobility, which leave herders with little administrative support; *chefs de groupement* do not have authority over land. The sedentary nature of livestock raising and increased competition for fields have resulted in a definite increase in conflict over resources.

A local administrator in Téra noted: "Pastoralists are becoming cultivators. They want the land of their parents." Due to the difficulty of acquiring agricultural land in the region, herders (as in Diagourou) are cultivating former rangelands. The consequences for the availability of pasture are obvious, but occupying ancestral land is the only secure method of land access for former pastoralists.

In many areas of the study region, there no longer exists any land designated specifically for pasture—herders use what is not cultivated. Typically, this is land between fields, which increases the risk of animal damage to crops; in Téra, the only remaining corridor to one side of the reservoir is completely bordered by fields. In other places, fields occupy so much of village land that pastoralists are forced to seek pasture in neighboring villages and cantons. The animals of Doumba range as far north as Kokorou in the rainy

season. In addition, increased stocking of crop residues and harvesting of natural grasses also diminish available fodder. Grazing pressure continues to intensify with the expansion of agriculture, and fields typically take precedence over pasture.

In addition, although most people express a preference for cattle, there is an increasing reliance on small ruminants in the household economy. In Charim, a Tuareg man noted: "Nobody has more than two or three cattle any more." More important than the hardness of sheep and goats (Newsum 1990, p. 12), perhaps, is the difficulty of finding adequate pasture for cows, particularly in limited territories. Furthermore, small stock may be kept in the concession or herded by small children, which frees time for adults to pursue other economic activities. Small ruminants are more easily bought and sold for household obligations.

These changes indicate a progressive movement toward a forced integration, rather than an "equilibrium" or coordination, of pastoralism and agriculture (Rochette et al. 1988, p. 34) and an overlapping use of the same territory. While economic diversification is an important strategy for increased security, a lack of recognition of the important role of animals in "agricultural" zones has not provided any methods for dealing with this important source of conflict. It is necessary to recognize a far more complex pattern of land use and control.

#### **4.3.2 TRANSFER OF OWNERSHIP**

Livestock in southern Téra, particularly in and around town, are increasingly in the hands of women. The *bergers* of the commune estimate that 60-70 percent of the animals they guard belong to women. Due to the sensitivity of the issue, no formal census was taken; however, six men in Téra offered that most (or all) of the livestock in the compound belonged to their wives and mothers. Most researchers agree that it is a "well-known fact" that the majority of small stock are owned by women, particularly after the drought (Rochette et al. 1988, p. 31; Smale 1979). Thus, women play a significant role in regional animal husbandry and have an influence on the patterns of land use in town.

Particularly for women, who are denied permanent access to agricultural land, hiring a herder represents a method of acquiring pastoral resources without a loss of control, which they might risk if animals were kept with relatives. The herder gathers animals in the morning, returning them in the evening to be milked and corralled in the compound; as previously noted, it is his responsibility to find adequate pasture. Moreover, as sheep and goats can be fed in the compound with crop residues, holding small stock does not necessarily require access to land. This management strategy—and the separation of animals from family herds—is a significant departure from traditional pastoralism. Currently, women are building herds at a faster rate than men.

In addition, most analyses assume that drought combined with the lack of adequate pasture resulted in the death of much of Niger's herds, particularly cattle. Available data demonstrate, however, that the total number of livestock in the region has remained fairly constant since 1985 (see table 2).<sup>6</sup> Yet, few owners still possess the same number of animals as in the past; stories about the tragic losses of herders are common. Reconstitution of herds has proved enormously difficult, particularly since chronic agricultural shortage encourages selling livestock to buy grain and seed; 87 percent of men in the study area sold animals in 1992, a relatively good agricultural year.

The existence of some large herds, however, may indicate a transfer of ownership to wealthy herders or merchants, who were able to buy animals cheaply during the drought. Newsum (1990, p. 12) notes: "Peasants say that the drought obliged them to sell some of their animals to feed the family; the number of heads that they possess has diminished during the last years. It seems then a redistribution of owners has taken place." Indeed, one Fulani man in Téra is said to own 25,000 head of cattle; apparently his situation is not unique. Certainly, the number is an exaggeration, but nevertheless is indicative of a perception that some people have been able to rebuild herds. Indeed, this herder believed that his wealth

---

6. We were unable to acquire livestock population estimates for the Téra arrondissement for the period prior to 1985.

makes him a "target," and he refuses to spend the night in the bush. More research is needed on how such sedentarized, large herd owners get access to sufficient pastoral resources.

**TABLE 2**  
**Estimates of livestock population in Téra Arrondissement, 1985-1990**

	1985	1986	1987	1988	1989	1990
Cattle	107,000	109,417	111,058	112,724	114,415	119,678
Sheep	92,940	96,192	99,559	103,044	106,650	111,982
Goats	130,980	135,599	136,271	138,996	141,716	148,723
Camels	1,500	1,524	5,188	5,271	5,355	5,456
Horses	1,500	1,523	1,538	1,561	1,584	1,631
Mules	15,000	15,300	16,867	17,173	17,516	18,216

Source: Département de Tillabéri en Chiffres, 1992.

The spatial concentration of livestock near zones of agriculture and the transfer of ownership to persons not directly involved in livestock management have not been given sufficient attention. These changes represent a significant departure from traditional pastoralism to a much more intensive form of livestock management and an intensification of land use. Legal reforms based on the concept of separate zones for fields and livestock are likely to have little impact.

#### **4.4 MANAGING LAND FERTILITY**

##### **4.4.1 FALLOWING LAND**

Particularly in the fragile or marginal lands of Téra, the temporary abandonment of land, or fallow, is essential to maintaining soil fertility. Traditionally, land was cultivated for 4-5 years with a sequence of cowpeas, sorghum, and millet, and then left to rejuvenate for a period of 5-7 years. More recently, land has been cultivated almost continuously; limited land availability, due to the extension of agriculture and increased population

densities, makes it difficult adequately to fallow land. Raynaut (1988, p. 231) notes, "The practice of long fallow periods has become impossible almost everywhere, and the resulting continuity in soil usage no longer allows the traces of human activity to be erased. A field thus exploited ceases to be the site of temporary agricultural labor and becomes the object of permanent and exclusive rights." This has serious consequences for both the availability and the fertility of agricultural land.

In Charim, 62.5 percent of farmers do not fallow. In two neighborhoods of Téra, the percentage rises to 83-85 percent, and in Diagourou, a surprising 90 percent of the land is reported to be under continuous cultivation. Each respondent claimed that he needed all the land for crops, presumably due to population increase and diminished productivity. The general lack of new available land for cultivation prevents farmers from shifting or extending their fields. Many formerly had fallowed but were no longer able to do so.

In addition, many farmers in the region (46-62%) expressed fear that fallowed land would be usurped; several had already lost fallowed land to cultivation by others, without permission. Those who are able will respond to this situation of insecurity by leaving only part of the field uncultivated (3 men)<sup>7</sup> or by shortening the length of the fallow period to 2-3 years (Hagen et al., 1986). Nine men in Charim believed that the fallow period could not exceed 3-5 years if one wanted to retain rights to the land and avoid conflicts.

Thus, feelings of tenure insecurity and problems with conflict resolution were important explanations for continuing to cultivate (i.e., not fallow) land throughout the arrondissement. Although tenure insecurity may not be the deciding factor for any land management decision, it is one important element of risk in a farmer's evaluation to fallow (or loan) land. In areas with contentious social or political climates, feelings of fear may acquire greater significance.

In addition, a household's capacity to fallow land varies as a function of its access to resources (including land and labor) as well as tenure security. Nearly all farmers (92%)

---

7. Leaving only a section fallowed has the additional advantage of reducing the required labor when it comes time to reclear the land for cultivation (Schwarzmeier and Grimm 1989, p. 27).

report the need to purchase seed grain at the start of the rainy season, when prices are highest and family material resources most strained (Newsum 1990, p. 3). The fragmentation of fields and rural exodus have restricted available labor at crucial periods of the year. Residents of Téra, an area where land is particularly scarce, often cultivate scattered fields or fields located 10-15 kilometers away from the homestead, a severe constraint on an individual's time and energy.

In Charim, six of seventeen respondents (35%) report land in fallow, five of these (83%) due to a lack of the resources necessary to cultivate land. Two farmers did not have the money to purchase seed, and three lacked sufficient labor. The last was forced to abandon two fields due to poor fertility and a lack of production. It should be noted that two out of the four Bella families questioned were unable to cultivate all their land.

A similar situation exists in Diagourou, where two of twenty (10%) respondents reported fallowed fields; one was counting his brother's land (on exodus), which he does not have the means to cultivate. Only two of twenty-two respondents in Téra fallow; both cite lack of labor as the primary constraining factor.

The data, suggesting lack of resources as a primary cause for temporary and sometimes permanent land abandonment, seem to contradict theories of poverty as a leading cause of land degradation. Maximization for short-term gain is not possible given each family's human and material resource constraints. This is not intended to suggest a strong conservation ethic, but rather that the inability to fully exploit the land leads to an obligatory abandonment, that is, fallow. Moreover, peasants in outlying areas and certain ethnic groups appear particularly affected, which may indicate those people at greater risk for having land appropriated and thus also at risk for higher rates of conflict.

Fallowing land, however, is essential to maintaining soil fertility in the region and should be an explicit strategy of sustaining production and protecting resources, not a consequence of economic or tenure insecurity. Diminished fertility resulting from continuous cultivation under poor rainfall conditions pushes farmers to extend agriculture, thereby reducing available land and intensifying conflicts over borders and the appropriation of

pastureland. Moreover, the data suggest that both poverty and confusion over rights disables people from exercising control over their land, and may hamper any attempted legal reform or program of natural resource management. Attention to tenure and the obligations as well as the rights of ownership is vital for guaranteeing access and managing land in the region.

#### 4.4.2 CROP RESIDUES AND LOCAL GRASSES

Crop residues left on the field after harvest provide a vegetative cover important against wind erosion and a significant source of fodder for animals during the dry season. In turn, this encourages manuring, which adds to a field's fertility (NAS 1980, p. 34). While not directly tied to natural resource access, residues have long been an important component of agropastoral coordination. Cut-and-carry feeding systems (e.g., stocking residues and purchasing local grasses), however, by allowing animals to remain in the compound, may be a response to the limited availability of local pasture and the need to avoid conflicts.

A growing market in grasses and residues represents an economic opportunity for some, but is a serious problem for the local management of pasture. Nineteen villagers said that they either buy straw at the market or cut it themselves. One *berger* described men filling wagons full of local grasses for sale in Téra. The removal of resources undercuts "free" access and increases the pressure on diminishing pasture resulting from the expansion of agriculture. Some livestock owners and *bergers* have been driven north, searching for grasses in the territory of other villages. Animals from both Téra and Diagourou, for example, often use pasture in the canton of Kokorou. Others routinely stock residues as a method of meeting the needs of their animals.

The practice of stocking millet stalks and cowpea leaves is increasing in the region, though the majority of farmers interviewed (47 of 52) leave at least one-half in the fields for grazing animals. Five cut all residues from their fields. Many men suggested that the amount stocked varied depending on the condition of pasture; when it is perceived to be poor, stockage amounts rise in response to feared scarcity of animal fodder. Poor pasture, however, is as much a question of diminished access and the consequences of commercialization as one of rainfall or vegetative conditions. In addition, stockage and the consequent

decrease in organic fertilizers has serious consequences for the fertility of agricultural land; *Project des Mesures Anti-Érosifs* (PMAE) actively promotes leaving stalks on the fields as part of its program of land recuperation. Nevertheless, the growing restriction of access to crop residues does not bode well for the future of agropastoral cooperation.

#### 4.5 CONFLICT RESOLUTION

Ethnic conflicts are heating up in the Téra region. People speak bitterly of their neighbors—Songhai, Djerma, or Fulani. Although there are several "hotspots," all villages face disputes over agricultural boundaries, competing claims of ownership, and livestock damage to crops. Altercations over the borders of fields and cattle corridors have led to murder on several occasions. We suggest that this is not simply ethnic prejudice, but a reaction to the different constraints and opportunities linked to each person's social identity which, through law and custom, gives certain groups rights of access and ownership and denies others.

Both within and between villages, the heart of all conflicts is confusion over ownership and rights of access to land. The extension of agriculture and the occupation of new land create disputes over field and village borders and the defense of pasture and livestock corridors. While previous disagreements occurred during planting and harvesting seasons, the establishment of gardens and increased numbers of animals within the village have extended conflicts throughout the year. Fields claimed simultaneously by two families highlight the problems of legal reform, as discussed in section 4.1, and present serious challenges to successful adjudication. Few written records exist of land transactions; often, borrowing is a tacit or verbal agreement between two individuals. The canton chief of Téra noted: "I only hear about it when there is a problem."

In theory, all problems or conflicts related to land and resource use are governed by customary and administrative authorities. The latter, however, typically defer to the older men in the village who know the history of land occupation. The judge at the Ministry of Justice in Téra indicated that though many conflicts occurred in the region, most were settled

at the level of the canton chief or *chef de poste administratif*. Moreover, no conflicts were recorded before the establishment of his office in 1973 or between 1974 and 1987. Both the *sous-préfet* and mayor keep some "verbal process" records detailing the conflict and resolution, but these are useful only should the same conflict arise between the same two people. The lack of written records makes difficult any detailed understanding of the sources and issues of conflict in the region.

Nevertheless, there is a need to know why conflicts often fail to be resolved satisfactorily at the local level, as well as to understand the mechanisms that cause them to be seen as both ethnic and land-use issues. An analysis of conflict resolution highlights the problems of past legal reform and the overlapping jurisdictions of regional authorities.

#### 4.5.1 LEGAL REFORM

Despite the confusion between customary law and legal reform, conflicts over land rights within the village are typically resolved internally through the intervention of the chief and several elders. Only rarely is it necessary to consult the canton chief. In addition, no village in the study area related friction between ethnic groups within the community because the history of village installation and land occupation is fairly clear. In Begourou-Tondo, the chief remarked: "All our problems are between Songhai, never with Fulani. The Fulani know the land is not theirs."

Conflicts over village boundaries, however, centering on the competition for land and the right to use or prevent its use by others, are not as easily resolved. Ngaido (1992, p. 9) observes that in the arrondissement of Kollo, 52 percent of boundary conflicts pit one village against another. In part, this situation results from a somewhat arbitrary legal division of village and canton territories which does not always correspond either to where villagers' fields were located or the use of pastoral resources by other groups. The creation of the commune in 1988, with the delineation of boundaries 15 kilometers in each direction, includes areas formally considered independent, such as the pastoral territory of Arbouguay. Long-term residents consider the Songhai of Téra to be cultivating land there without permission, and they are unable to restrict livestock from the commune. Their arguments

may be justified by customary rules of land occupation, but by legal decree, it is the people of Arbouguay who are using the land of another. When asked about changes before and after incorporation, the village chief of Doumba declared: "Before the commune there were limits between Téra and Doumba. Now there are none."

However, the overwhelming majority of conflicts between villages in the study area occur between the Songhai of Téra and neighboring villages over the installation of hamlets. As in the highly charged case of Diagourou, the Songhai are expanding into the periphery of adjoining territories and justifying their rights to land under customary law and the principle of first occupation.

The people of Sirfikoire are accused by the Fulani of having expropriated 162 fields, blocking 3 of 4 *mares*, with the complicity of the administration in Téra. The Songhai, in contrast, say that the land as well as the village of Diagourou belong to them. Again, it is a question of whether customary or colonial rights of ownership should be respected. Negotiation between the two canton chiefs, one Fulani and one Songhai, has failed; the inhabitants of the hamlets do not even recognize the authority of the Fulani.

Conflict within the commune between Doumba, a Gourmantché village, and Guenobon, a neighborhood of Téra, highlights similar issues. For five years, the chief of Doumba has tried to prevent the expansion of Téra's fields within his borders. Although technically the first occupants, the Gourmantché fault the canton chief, a Songhai (whose office was appointed by colonial authorities), for decisions against them. The chief has been unable to achieve satisfaction from local administrators: "The other authorities follow his word."

Moreover, it seems that legal reform has been manipulated to strengthen claims of customary land rights. A 1983 *circulaire* required each villager to be registered in his village of residence, presumably where fields were also located. Ngaido (1992, p. 7) remarks: "In the case where a farmer had a field in another village, and that he was not in good terms with the village chief, the latter can withdraw the field from his use. Moreover, the fields located at the limits of different villages will be regions of disputes." The Songhai, in continuing to

pay taxes to Téra regardless of the location of the fields, thus justify ownership under both customary and modern law. They acknowledge only Téra as their village of residence and do not recognize the other village chief, thereby preventing his power to withdraw the field from use.

#### 4.5.2 OVERLAPPING JURISDICTIONS AND REPRESENTATION

In 1975, a national ordinance (*Ordonnance* no. 75-7) devolved powers of conflict resolution and land litigation to local administration and traditional institutions:

*The préfet, sous-préfet, chef de poste administratif, canton chiefs, village chiefs or tribal chiefs designated by the custom, are endowed with powers to conciliate parties in civil customary matters as well as commercial, susceptible of transactions (Ngaido translation).*

Thus, power was vested in a number of persons deriving authority from different sources of land law. The designation of their particular roles in the adjudication process was unclear. Government administrators, without clear knowledge of the local history of land use and ownership, relied heavily on traditional authorities to govern the local population. The chief of Foneko noted: "Often conflict goes to the legal authorities who don't know [the history] and send it back to the neighborhood, to the old men." Thus, according to Ngaido (date, page), "traditional chiefs were able to enhance their social and political image" and to consolidate their powers. This may have set the stage for Songhai appropriation of land in the region. Hamlets in Diagourou and Doumba were established in the mid-1970s.

*Circulaires* introduced in 1977 and 1980 to reduce the power of traditional institutions by forbidding their involvement in land litigation do not appear to have been enforced (Ngaido 1992, p. 7). Administrators attempting to resolve conflict generally work with or defer to the knowledge of traditional authorities. Villagers attempt first to settle conflicts through the chiefs, taking their case to the *sous-préfet* only if they feel that the judgment was unfair or if the conflict continues.

Yet, according to all local administrators, the number of conflicts in the region continues to rise. Moreover, the number of cases reaching the Ministry of Justice is high

enough to attract attention in Niamey. In order to deal with this situation, a *Commission de Conciliation* was recently created at the arrondissement level. It is comprised of all of the local officials including the *sous-préfet*. The board meets each year before the rains to target problem areas, and attempts to resolve problems before they arise. In the case of a conflict which the canton chief cannot resolve, the commission sends an investigator to the land to arbitrate before referring the parties to Justice. What is striking about the composition of the board is that none of the traditional authorities of the region are included.

Although most internal conflicts may be solved at the local level, the increasing involvement of the *sous-préfet* and the Ministry of Justice, particularly in intravillage disputes, signals the eroding power of or respect for traditional authorities to implement and enforce property and use rights. Theoretically, the canton chief may take back land reserved for animals if it is cultivated; in practice, he has never been able to do so. Most chiefs no longer have *terres de chefferie* to allocate or the power to recover land long abandoned, as they did in the past. Their decisions are sometimes ignored or openly challenged; Fulani and Gourmantché men spoke bitterly of the favoritism and ethnic bias of Songhai and Djerma chiefs. Having "never" won a favorable decision from traditional authorities, they go directly to government administrators as the only way to a "fair" consideration and settlement. The issue, however, is not really one of ethnicity, but is related to the different origins of rights. Traditional authorities naturally uphold customary ownership of land; for the Fulani, the *sous-préfet* may be the only way to get other (i.e., statutory) rights recognized.

A more complicated and serious situation of overlapping jurisdictions, however, is the coexisting and unequal structures of cantons and nomadic *groupements*. For example, Tuaregs residing in the town of Téra are responsible, by virtue of their ethnicity, to the *chef de poste administratif* (CPA) of Bankilaré, not the canton chief of Téra. Should a conflict arise with a Djerma or Hausa, the conflict must be handled at two levels; locally for the Djerma or Hausa, and in Bankilaré for the Tuareg—a thoroughly impractical and potentially discriminatory process. Moreover, the CPA has no official jurisdiction over land or resource conflicts in the region he occupies. Without the same rights to control territory and allocate

land held by the canton chief, the authority of the CPA extends only over certain groups of people. Perhaps this begins to explain why many of the residents of Téra say that the nomads "have no land." Clearly, this structure is one major impediment to an improved land law in a transitional zone such as Téra. It also suggests serious problems for protecting northern pasturelands and for halting the expansion of agriculture into these zones.

Unequal representation to authorities also plays a role in the problem of conflict resolution. An analysis of existing litigation reports (Mamoudou 1992) suggests that the majority of cases handled by the Ministry of Justice are between farmers with conflicts over fields. Only once since 1991 did Justice consider a case involving a pastoral problem—the restriction of a livestock corridor. Such cases may be more easily solved at a local level, but the current (and continuing) difficulties of herders may suggest that pastoralists are denied access to higher authorities, or are tacitly or practically discouraged from pursuing their claims. Similarly, it should be considered whether women's refusal to fine their neighbors for animal damage ("we are all the same family and must live together"), even though men feel perfectly justified in doing so, may be the result of societal pressure on women to swallow their economic losses or a devaluing (by male authorities and family members) of women's agricultural production: "Women's gardens are nothing." Knowing that they are unlikely to face sanction, some villagers may be more apt to trespass on the "property" of women and pastoralists. Detailed attention to the structure of conflict resolution is necessary in any attempted reform of land rights.

## 5. DISCUSSION

The foregoing has been an attempt to illustrate some distinguishing characteristics and variables affecting land use and to suggest that rural resource users in Téra Arrondissement are not a homogenous population. As differences can confound efforts at development and reform, population subgroups need to be defined and recognized, and any changes implemented must be sensitive to the regional and subregional differences that influence people's relations to land.

Beyond climate change, population growth, and declining quality of the environment, several important social issues may constrain development, including: limited access to agricultural land, disincentives to invest in production, monetary needs that remove labor from household fields, and increasing proportions of producers subsisting only on borrowed fields (Hagen et al. 1986, p. 51). These factors serve to enhance competition between different economic or ethnic groups for control of resources and stability of tenure. In Isaacman's (1989, p. 37) words, "The complexity and intensity of these struggles suggest that it is necessary to pay greater attention to the social basis of rural conflict."

The Rural Code and its accompanying texts are not intended to advocate radical land reform or a redistribution of fields (Keita 1991, p. 2; Caverivière 1989, p. 3), but rather to recognize and confirm existing traditional or customary rights. The commitment to promoting a body of laws grounded in history and rural tradition is well intended. Customary law is typically understood as the backbone of rights to land. This study suggests, however, that many rights of access and ownership were actually gained as a result of policies and laws external to that system. In addition, customary land rights have been significantly altered by a succession of laws and policies since the colonial period. This begs the question: Which "traditional" rights should be recognized?

In the context of a decreasing resource base and expanding agricultural production, all villagers recognize the need for secure rights to land. There is little security in borrowing

or other use-rights. The very high percentage of persons claiming ownership of land—regardless of their heritage or status—speaks to the difficulty of "undoing" laws long in existence and suggests that several groups may have a stake in preserving the confusion and avoiding registration. Elevating traditional rights would privilege certain groups, deny access to many, and cause considerable conflict between all people who see themselves as the rightful owners. Women would be left ever more vulnerable to family whims.

Moreover, the rules relating to the use and management of productive resources must recognize the demise of traditional pastoralism and agriculture and the increasing complexity and integration of production systems. No one is exclusively agricultural or pastoral any longer. All people cultivate fields. Most own livestock. If the delimitation of agricultural and pastoral zones by the French according to rainfall criteria was once based on some objective reality beyond administrative convenience, the distinction has no real meaning today.

Theoretical divisions between pastoral and agricultural are applied not only to geographic space but also to people, hence "agriculturalists" and "pastoralists" are defined by their nonoverlapping and unambiguous subsistence strategies. In much the same way, perceptions of the roles of the canton chief and the *chef de groupement* as well as different examples of ownership and use-rights have been unrealistically placed in a dichotomous framework. In reality, however, simple definitions of land use and management patterns in any particular place can seldom be made; overlapping functions and use-rights are the norm. On a practical level, a failure to recognize the inherent complexity of current land-use patterns will render any reforms at best ineffectual and at worst counterproductive. To develop a strategy for the efficient and equitable allocation and sustainable management of resources in Niger, it is necessary to recognize and understand a more complex cultural and ecological mosaic.

Findings from research in Téra indicate that diminished rights of access to land, scarcity of land availability, and tenure insecurity are the major issues affecting land-use patterns, natural resource management, and increased conflict in the region. Access to those

resources necessary for production is increasingly competitive, contentious, and stratified—within communities and between villages. Provisions in the new Rural Code do not go far enough in addressing the fundamental problems of land access and use. Consequently, without some reworking or else highly strategic implementation plans, the new Code does not offer much optimism for improving landed inequities and social conflict in rural communities and the multiplicity of legitimate but often contradictory bases for land claims.

Laws regarding land tenure and property rights should be revised to the benefit of all Nigeriens, no matter their status, gender, or ethnicity—all of whom ultimately depend on the crucial land and resources in question. In aiming to address food insecurity, resource degradation, and rural conflicts, such legislative efforts should avoid reinforcing a system of differential rights. It is hoped that the recommendations which follow will strengthen the ability of the Rural Code to meet the constraints and aspirations faced by all users of land and natural resources in Niger.

## 6. RECOMMENDATIONS

### LEGAL REFORMS

**Formally abandon the 26 and 27 May 1961 laws (*Lois 61-5 and 61-6*) which fixed the northern boundary of crops and considered the zone north of that line pastoral.**

Since the drought of 1973, many animals have been brought south of the pastoral zone, and the expansion of millet production continues northward. Economic diversification and the fluidity of production systems have invalidated the old herder-farmer distinction in large part. There is a need to recognize these important changes in land use patterns and the increasing integration of economic activities for effective natural resource management and the resolution of tenure conflicts. In particular, it is vital to consider how to deal with the "privatization" of pastureland under the principle of *mise en valeur* when some areas are cultivated. Finally, the delimitation of zones has encouraged a disproportional investment in "agricultural" areas (i.e., south of the 350-millimeter isohyet), which accelerates the southward migration and sedentarization of former pastoralists.

**Define or reevaluate key, ambiguous terms used in the supplementary written texts of the Rural Code, including ownership, tenure, public property, communal access, *maîtrise exclusive*, management, and *mise en valeur*.**

*Mise en valeur* may be a central tenet of private ownership and fundamental to several provisions in the Rural Code, but the continuous cultivation of fields and the lack of vacant, unexploited land does not easily facilitate an application according to its traditional meaning. In order to prevent further conflicts, the concept must be carefully and explicitly defined. For example, Article 6 of the Code notes that *mise en valeur* "implies a rational management of resources assuring their protection and their optimization." However, no procedures for determining "rational" (or irrational) management are provided. Furthermore, it assigns a priority use to agricultural land which increases the difficulty of maintaining or recovering

pasture and livestock corridors. The notion of *mise en valeur* for pasturelands is noted in the Code, but again is not defined (Art. 27).

In addition, the concept of ownership should include the responsibilities and obligations as well as the rights of ownership—including the provision of access and methods of management. This refers not just to legal obligations but to ecological ones as well. Inappropriate or irresponsible use of land requires people to spread out as resources deteriorate, further increasing competition and conflicts; the potential for expansion in Téra is rapidly being exhausted.

**Recognize the legitimacy and equal merit of different origins of ownership rights to land, including "noncustomary" rights, particularly "land to the tiller," and develop methods to guarantee tenure security for them.**

Several laws and policies in the postindependence period have altered the structure of traditional land access and control and granted rights of ownership to persons for whom there is no provision in customary law. Elevating traditional rights would privilege certain groups, disenfranchise or deny access to many, and cause conflict between all people who see themselves as the rightful owners of land. In addition, such a provision would leave the majority of the population as holders of insecure use-rights, which fails to deal with the question of equity as noted in Art. 4. Findings from research in Téra have indicated that tenure insecurity has profound negative effects on the exploitation and management of land, leading to the abandonment of fallow, the restriction of access, and the appropriation of pasturelands. Any successful program of natural resource management depends on the participation of users at all levels.

**Develop methods or procedures for the attainment of ownership rights by noncustomary users, and facilitate the secure exploitation of land by nonowners.**

Fields borrowed for forty or fifty years call into question the inalienability of rights of first occupation and inheritance. Long-term users, responsible for the health and productivity of the land, offer compelling evidence that it is they who are responsible for *mise en valeur*. Local administrators in Téra propose a maximum borrowing period of ten to

twenty years, after which ownership is transferred to the current user. Expanding the landed population base is fundamental to any national policy of self-reliance or food security.

With respect to borrowed land, in the form of a contract specify the allowed uses, terms of length, conditions, rights, and obligations for owners and users. Currently, farmers fear that loaning land will result in a loss of their rights to that land. Users, then, have little access to fields, hold no security, and are reluctant to invest in agricultural land. Contracts should be recorded and held by both customary and administrative authorities.

**Secure the tenure of pasturelands according to the concept of *terroire d'attache*.**

Communal tenure should be vested in community authorities such as the *chef de groupement*, who should also have the right to enforce sanctions against those who obstruct access to water points and livestock corridors. Transhumant herders and members of other *tribus* are guaranteed access under the principles of customary law and traditional use. Few conflicts are ever reported between pastoralists in the region. Without clear rights of ownership vested in pastoral groups, including the right to manage access and to exclude other (i.e., noncompatible) uses of land, pasture will continue to diminish with the expansion of agriculture. "Free access" as specified in Art. 23 cannot be secured, since *mise en valeur* gives agriculture priority use in all lands.

In addition, while the concept of *terroire d'attache* is theoretically useful, it remains to be defined both legally and spatially in the Code and the supplementary texts. Mobility within the *terroire* should be protected.

**Specify the legal width of livestock corridors, *pistes de transhumance*, and the area of access to water points. Endow local authorities with the power to enforce these boundaries.**

As herders are responsible to pay fines for the destruction of agricultural property by animals, so should farmers be subject to sanctions for the appropriation of communal pastoral lands. Fines should be established and boundaries delimited with permanent markers, since trees are vulnerable to both drought and cutting.

**Formulate provisions to improve women's land access and tenure security, particularly for dry-season horticulture. Promote legal reform that allows women to inherit land.**

Despite the various principles favoring long-term users (i.e., land to the tiller), women continue to be excluded from formal control over agricultural land. Considerable attention to women and their importance in agricultural production has not been incorporated in documents produced by the regional committees or in the new Rural Code. Legal reform for women's economic improvement cannot be fully addressed by the Family Codes. Chiefs should be encouraged to allocate village garden plots directly to women as well as to the heads of household. Furthermore, women should be granted the right to inherit garden plots and other agricultural land. According to Islamic law, women are permitted inheritance rights to land and are not prevented from owning and managing property.

**Secure the practice of fallowing by allowing land to remain uncultivated longer than three years without its resulting in a loss of rights or a transfer to other users, as is currently stipulated in the Rural Code (Art. 19). The seven-year period provided by Islamic law is suggested.**

New regulations in the Rural Code specify a maximum period of three years for uncultivated land which, according to both agricultural scientists (Hagen et al. 1986) and villagers in the region, is not long enough to allow land to regenerate. The subsequent transfer of insecure use-rights does not provide incentives to invest in land. Fallow should be considered a form of semiprotected land in any effective program of natural resource management.

**Abolish permanent rights of landownership in the absence of *mise en valeur* after ten years.**

Currently, the Rural Code provides for a temporary transfer of use-rights if land is left uncultivated for three years. Property rights, however, are inalienable and the owner may recover the land with one agricultural cycle's notice. This may lead to a situation where one person develops land while another has all rights over the improvement and is not required to compensate the user. In addition, it secures the concentration of land within

individual families and prevents any mechanism for redistributing land to persons who will actually cultivate and maintain the productivity of agricultural land.

## INSTITUTIONAL REFORMS

**Reorganize the *Commission Foncières* to include participants from the local community. Explicitly define the role of the *Commission* with respect to setting and administering rules over resource use and resolving conflict.**

The majority of the members of the *Commission Foncières* are local administrators who do not know the history of land occupation and transactions. To date, these authorities have typically deferred to the knowledge of village elders. In addition, local administrators change posts often (particularly in Téra) and rapid turnover will hinder institutional memory and long-term planning by the *Commission*. While the inclusion of livestock, agricultural, and women's groups is promising, the *Commission* should be reorganized to include representatives from the local population who should be involved at all levels of policy formulation and implementation for successful natural resource management.

It is recommended that at least 50 percent of the *Commission* be composed of villagers, with proportional representation by each ethnic group. Ideally, women and men will be equally represented. Members should be chosen by direct election within the village or neighborhood in accordance with the above conditions. In the case of the commune, *Commission* posts should be distributed evenly among the neighborhoods.

In addition, it is necessary to better define the role of the *Commissions* and the procedures to be used in carrying out their responsibilities. For example, by what standards does the *Commission* determine *mise en valeur*? According to the Code, it is noted that the *Commissions* are primarily concerned with tenure rights and conflict. The question of which institutions are entrusted with the power to set and administer rules over communal resources (e.g., trees, water points, pasture) is unresolved and should be addressed.

**Retain an independent role for the *Commission de Conciliation* and strengthen these boards by including customary authorities.**

Equal attention should be given to the identification of conflict zones and the prevention of disputes.

**Grant *chefs de groupement* the power to manage and administer the communal access and use of resources within the *terroire d'attache*. Establish better procedures for the regulation of conflict at different levels of arbitration.**

Clearly, one major impediment to an improved land law in a transitional zone such as Téra is the overlapping and competing jurisdictions of the canton chiefs, who administer farmers within a specified territory, and the *chefs de groupement*, who look after the rights of pastoralists whatever their residence or economic activity. Without the power to allocate land and manage its use, *chefs de groupement* effectively have little power in arbitration and the resolution of conflicts. In addition, strengthening the office of the chief by endowing him with the power to manage access to resources and to exclude agriculture is necessary to preserving pasture areas and securing use-rights for all pastoralists.

**Promote the development of Regional Land Use Committees entrusted with setting land use plans and goals consistent with national policy.**

These organs would be responsible for long-term land-use planning, including, but not limited to: the delineation of grazing zones within the village territory, the selection of protected areas, and the allocation of garden plots. This is particularly important in rapidly growing areas such as the commune of Téra.

Committees should be composed of customary authorities; representatives from local livestock, agricultural, and women's organizations; and individual members of the community. Local administrators should act as an advisory panel. Community-level meetings should be held periodically.

The committee should also be entrusted with setting short- and long-range goals for the recuperation of land. Members of the committee would work with the local community

to evaluate needs and priorities and to anticipate potential tenure and social conflicts resulting from any intervention.

### **POSSIBLE DEVELOPMENT INITIATIVES**

#### **Support open growth of thorny trees managed for thorn branch production and amend regulations to allow cutting at will for fencing material.**

This is intended to provide women with the resources necessary to make their gardens viable against animal destruction and to encourage more women to begin gardening. Unlike "living fences," the branches can be removed after gardens are harvested to allow full access to water points by animals.

#### **Facilitate a better coordination of agropastoral activities in the region.**

Lack of coordination has led to intense conflicts between farmers and livestock owners. Fundamentally, any resolution requires a recognition of the overlapping uses of land and the multiple rights invested in it. Important components of this coordination include:

- **Develop a system for the circulation of animals in "agricultural" zones and the strict delimitation and protection of livestock corridors and pasture areas. Maintain access to water points for garden sites and animals.** This system is intended to protect both farmers and livestock owners. To date, the only method of land use "management" is to fine livestock owners after crop damage has occurred. Explicit rules of access and the designation of boundaries marking will reduce conflicts within the village.
- **Develop a system to signal the end of the harvest in each region and the permission for animals to enter the fields.** Prior to this date, fields are officially closed to grazing. Announce the deadline daily on the radio beginning several weeks in advance in all major languages. This must be done on a regional, perhaps canton-level basis in order to account for variability in crop maturation resulting from rainfall differences.
- **Facilitate the development of manure contracts (see Loofboro 1993) as a means of maintaining the fertility of fields, particularly for the majority of farmers who have only a few animals.**

**Translate the Rural Code and the laws of implementation into the seven major languages of Niger—Hausa, Djerma, Tamashek, Fulfuldé, Kanouri, Gourmantché, and Arabic—and promote these texts through regional sensitization committees.**

The distribution of this information presents a special challenge. Much legislation already exists, but it is not well known or understood. Both local authorities and villagers have high expectations of the potential of the Code. Regional sensitization committees and publication of the texts into the seven major languages of Niger will greatly enhance its influence. Radio announcements of the text's main provisions may also be considered.

## APPENDIX

### INTERVIEW QUESTIONNAIRE

N.B.: As previously noted, the questionnaire was designed to gather both qualitative and quantitative information related to historical and ecological conditions, activities of production, access to and use of resources, and conflict. The following is not exhaustive and was neither rigidly nor systematically followed. Rather, it served as a working guide and was modified to fit the particular situation and circumstances.

#### A. Village-level resource use: customary authorities and groups of men

- What is the name of this village? How long has it been in this place?  
 How many people live here? Which ethnic groups? What are the major economic activities of the people who live here?  
 What are the predominant uses of land? Other uses?  
 How are lands held? Is there communal land? Who has authority over it?  
 How does one get access to land? To points of water? Villagers? New persons to the village? Strangers? Women?  
 Is land sold in this village? Loaned? Gifted?  
 What are customary rights over land? Over pasture? Over water and forests?  
 Is there a method of traditional management over agricultural land? Natural resources?  
 Is there land available for cultivation? For pasture? Is it sufficient? Good quality? With easy access?  
 Are there transhumance routes through this village? Livestock corridors? How many? With easy access?  
 Who uses the pastures? What are the rules of access?  
 Are there large exploitations of agricultural land? By whom?  
 Is there a system of agricultural credit or savings? Traditional or formal?  
 Is there an organization of herders? Farmers? Women? Other organizations?  
 Are there fertile zones with available water and not yet exploited?  
 Are there improved/recuperated lands? Improved by whom? What kind? Who is the owner? How are they distributed?  
 Are there recognized boundaries at the level of family fields or individual fields/parcels? Individual or community fallows? Areas of pasture? Points of water? Livestock corridors?  
 Are the limits necessary and respected?  
 How is the circulation of livestock organized in agricultural zones? Protected areas?  
 Are there protected forests? Is there protected land? Where?  
 Where are the water points? How many are there? Who has rights to use them?  
 What are the different problems tied to use of land? Water points?  
 Are there conflicts over land? Over resource use? What are the sources of conflict between farmers and herders? Between farmers? Within the village? Between villages?  
 Who resolves them? How (at what level)? Is that usually satisfactory?  
 Are there problems associated with demographic pressure?

Are there zones demographically saturated?

Has there been a displacement/movement of people? Of herds? Toward the north? The south?  
Toward "urban" centers?

Are there pastoralists in the village? Are they transhumant? Were they in the past?

Has there been an augmentation of fields in years past? by whom? why?

Is there a system in the village for registering rights of use and ownership of land?

## **B. Individual land and resource use: men**

What is your name? How old are you? How many persons are in your family?

How many fields do you have available for use? How many do you cultivate? Last year? Ten years ago?

How many kilometers are they from the village? Are they fertile enough? Where is the closest point of water?

Who is the owner? How did you (he) obtain the fields?

Have you loaned fields to other villagers? How many? For how long? Do you receive tithe or other form of compensation?

Do you borrow fields? Do you pay tithe?

How long have you owned/used this land?

If you needed more land, is it available? How would you get it?

Do you fallow land? For how much time do you leave land fallowed? Is this period the same as in the past?

What crops are cultivated? Who helps you with the seeding? the harvest? Do you ever hire labor? Did you hire labor this year?

Do you cultivate with your father? Your brothers? Other family members? Do women of the family ever help in the fields?

Is the production for sale or consumption? How does the production compare to last year? Ten years ago? (If less, Why?)

Is the land as fertile as in the past? Why or why not?

What do you do with the crop residues, i.e. cut and stock, leave?

What do you do with trees in the fields, i.e. cut, leave?

Are there border conflicts with other villagers? Other kinds of conflicts? What are the sources? Have you ever had a conflict over land?

What is the largest problem you face for cultivation? (diminished rain, fertility, animals, availability of land, other?)

Do you have animals? What kinds?

Do you supervise the animals yourself or with someone else? Who? Why? During certain parts of the year?

Is there a berger in the village?

Where is the pasture for animals? At what distance? Is it sufficient? Good quality? How does the location/access change with the seasons?

Is it the same territory as in years past? Closer to the village, more toward the north, the south?

How does one get access to pasture?

Who uses the pasture?

What are the rules? Obligations?

Can one let animals into the fields after the harvest? When?

Where are the points of water? How many? What kinds? What is the duration of each? Is the rain sufficient?

Do you purchase straw? Other residues or salt to nourish the animals?

Have you sold animals in the last year? In the past six months? How many? Which kinds? Why?

Have you purchased animals in the last year? In the past six months? How many? Which kinds? Why?

At which market?

Is there an occasion where you have given animals in the past year: yes or no? To whom? Why?

Who will inherit your animals? Your land? Can your daughters inherit?

How long have you been in this place? Before that?

Do you relocate for the harvest?

### **C. Individual land and resource use: women**

What is your name? How old are you? How many persons in your family?

Do you cultivate during the rains? Garden? Which crops?

How many other women in the family cultivate? Garden?

What portion of the production is for consumption? For sale?

Where do you cultivate, i.e. in the fields, in borders between the fields?

How did you get access to this land? How long have you been cultivating this parcel?

What do you do with the trees in the gardens?

Are you the owner of land? Can you inherit land? From whom?

What are the problems with this land? With the crops?

How do you protect gardens/parcels from animals? Do you have problems with animals in the gardens/parcels?

Do you help in the cultivation of men's fields? Seeding? Harvest?

Do you need ever required labor help? Who helps you?

Are there conflicts related to the gardens? What kinds? Who arbitrates them? How are they resolved? Are you satisfied?

Do you have animals? What kinds?

How did you acquire the first animal? When?

Have you sold animals in the last year? Why?

Have you purchased animals in the past year? Why? What kinds?

Do you ever sell small ruminants to buy cows?

Who owns most of the animals in your family: men or women? In the village?

Do you keep animals in the compound? With the berger? In the bush? With whom? Does this change during the year? Where is the pasture for animals?

Do you purchase straw or other residues for the animals? When? How much per month?

Why do you keep animals? Who will inherit them? Do you ever "gift" them? To whom?

Have you received animals by gift? Loan? Inheritance?

Do you make handicrafts? What kinds? For sale?

How long have you been in this place?

Do you relocate for the harvest?

## BIBLIOGRAPHY

- Arnold, Eric J., and Helen Kreider Henderson. 1982. "Women in the Niger Republic." Preliminary. Working Paper, no. 1. Women in Development Program, Office of International Agriculture Programs, University of Arizona.
- Bassett, Thomas J. 1988. "The Political Ecology of Peasant-Herder Conflicts in the Northern Ivory Coast." *Annals of the Association of American Geographers* 78(3).
- Bennett, John W. 1984. "Political Ecology and Development Projects Affecting Pastoralist Peoples in East Africa." LTC Research Paper, no. 80. Madison: Land Tenure Center, University of Wisconsin, May.
- Berry, Sara. 1988. "Concentration without Privatization? Some Consequences of Changing Patterns of Rural Land Control in Africa." In *Land and Society in Contemporary Africa*, edited by S.P. Reyna and R.E. Downs, pp. 53-75. Hanover: University of New Hampshire Press.
- Blaikie, Piers. 1986. "Environment and Access to Resources in Africa: A Programmatic Paper." Commissioned paper for the Joint Committee on African Studies of the American Council of Learned Societies and the Social Science Research Council, October.
- Breman, Henk, and N'golo Traoré. 1990. "Un remède contre le manque de terre?" *Sécheresse* 2(2), July.
- Bruce, John. 1988. "A Perspective on Indigenous Land Tenure Systems and Land Concentration." In *Land and Society in Contemporary Africa*, edited by S.P. Reyna and R.E. Downs, pp. 23-52. Hanover: University of New Hampshire Press.
- Caverivière, Monique. 1989. "Code Rural: problématique et premières propositions d'orientation." July.
- Charlick, Robert. 1991. *Niger: Personal Rule and Survival in the Sahel*. Boulder, Colo.: Westview Press.
- CNCR (Comité National de Code Rural). 1989. "Revue de presse." (Articles de presse sur le Code Rural parus dans le *Sahel-Dimanche* du 21 juillet au 25 août 1989.)
- Delehanty, James. 1992. Memo to Peter Bloch, Land Tenure Center, University of Wisconsin-Madison, June.
- \_\_\_\_\_. 1988. "The Northward Expansion of the Farming Frontier in Twentieth Century Central Niger." Ph.D. thesis, University of Minnesota.
- Djibo, Hadiza. 1990. "Étude de factibilité d'un projet féminin: embouche, ovine et peche au Niger." March-May.

- Dunbar, Roberta Ann. 1990. "Nigerien Women and Access to Productive Resources: An Assessment in View of the Projet du Code Rural." Prepared for the 33rd Annual Meeting of the African Studies Association, 1-4 November 1990, in Baltimore.
- Dunbar, Roberta Ann, and Hadiza Djibo. 1992. "Islam, Public Policy and the Legal Status of Women in Niger." Prepared for the Office of Women in Development, USAID, March.
- Garba, M. Seydou. N.d. "Analyse de la situation de la femme au Niger et perspective d'un avant-projet de définition d'une politique en matière de la promotion de la femme au Niger."
- Goldmark, Susan. 1977. "A Brief Analysis of the Impact of Modernization upon the Traditional and Tenure Systems of the Zarma of Niger." Study Paper, no. 1. Prepared for USAID/Niamey and the Niamey Department Development Project.
- Grayzel, John. 1988. "Land Tenure and Development in Mauritania: The Causes and Consequences of Legal Modernization in a National Context." In *Land and Society in Contemporary Africa*, edited by S.P. Reyna and R.E. Downs, pp. 309-339. Hanover: University of New Hampshire Press.
- Green, Joy K. 1987. "Evaluating the Impact of Consolidation of Holdings, Individualization of Tenure and Registration of Title: Lessons from Kenya." LTC Paper, no. 129. Madison: Land Tenure Center, University of Wisconsin, February.
- Guyon, G. 1989. "Faut-il se préoccuper des questions foncières? Jusqu'où et comment? Les enseignements du développement rural en Afrique de l'ouest." *Note de Réflexion*. January.
- Hagen, Roy, James Brown, and Frederick Sowers. 1986. "Agro-ecological Zonation Study, Niamey Department, Niger." Prepared for the United States Agency for International Development, Niamey, Niger, February.
- Isaacman, Allen F. 1989. "Peasants and Rural Social Protest in Africa." MacArthur Interdisciplinary Workshop, Series 1, Working Paper 1. September.
- Kalilou, El-Hadji Mounkaila Issifi. 1981. "Essai de Monographie: Téra." Niamey: IRSH-Université de Niamey, October-November.
- Keita, M. 1988. Presentation at Séminaire Régional sur l'Approche Participative et les Techniques Forestières au Sahel, in Tahoua, Niger, January.
- Keita, Thérèse. 1991. "La femme et le Code Rural au Niger." Séminaire National sur la Définition d'une Politique en Matière de Promotion de la Femme au Niger, Niamey, 6-10 May 1991.
- Kopytoff, Igor. 1987. "The Internal African Frontier: The Making of African Political Culture." In *The African Frontier: The Reproduction of Traditional African Societies*, edited by I. Kopytoff, pp. 3-34. Bloomington: Indiana University Press.
- Malam, Boukar Abba. 1992. "La gestion des ressources naturelles en pays sahélien: le cas du Niger." *Sahel Dimanche*, 11 September.

- Mamadou, Aicha. 1992. "Recherche de la documentation relative aux litiges champêtres au niveau de la justice de paix et de la sous-préfecture." Rapport de mission sur Téra du 17 au 21 Novembre 1992. Prepared for Land Tenure Center, University of Wisconsin-Madison.
- Murphy, William P., and Caroline H. Bledsoe. 1987. "Kinship and Territory in the History of a Kpelle Kingdom (Liberia)." In *The African Frontier: The Reproduction of Traditional African Societies*, edited by I. Kopytoff, pp. 121-147. Bloomington: Indiana University Press.
- NAS (National Academy of Sciences). 1980. "A Preliminary Assessment of Environmental Degradation and Agricultural Productivity in the Senegalese Groundnut Basin." Report to the Advisory Committee on the Sahel of the National Academy of Sciences, Dakar, 14-21 April 1980. Washington, DC.
- Newsum, Peter. 1990. "Étude sur la possibilité de développement de l'agriculture pluviale dans l'arrondissement de Téra (rapport provisoire)." Association Néerlandaise d'Assistance au Développement, October.
- Ngaido, Tidiane. 1993. "Land Use Conflicts in Western Rural Niger: Kollo and Tillabery Arrondissements." LTC Cooperative Agreement with USAID/Niger, Discussion Paper, no. 1. Madison: Land Tenure Center, University of Wisconsin, January.
- \_\_\_\_\_. 1992. "Land Use Conflicts in the Rural Areas of Niger: The Case of the Kollo Arrondissement." Draft. Discussion Paper, no. 1. Madison, September.
- Niger. Ministère du Plan. 1987. "Programme d'appui aux activités socio-économiques des femmes." Plan de Développement Économique et Sociale du Niger, 1987-1991, May.
- Niger. Département de Tillabéri. Arrondissement de Téra. 1989. "Synthèse des données recueillies dans le cadre du Code Rural." Commune de Téra, le 18/08/89.
- \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. N.d. "Éléments d'information relatifs au Code Rural." Groupe II, Canton de Kokorou.
- \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. N.d. "Rapport du Comité Régionale de Téra."
- \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. Ministère de l'Agriculture et de l'Élevage. Service de l'Agriculture. 1991. "Rapport annuel d'activités agricoles d'hivernage 1991." December.
- \_\_\_\_\_. \_\_\_\_\_. Direction Départementale du Plan. 1992. "Le Département de Tillabéri en chiffres." June.
- Ottens, Jacob, and Dorine Huisman. 1991. "Étude sur l'élevage dans le nord de l'arrondissement de Téra (rapport provisoire)." Association Néerlandaise d'Assistance au Développement, December.
- Raulin, Henri. 1965. "Travail et régimes fonciers au Niger." *Cahiers de l'Institut de Science Économique Appliquée* 9(166): 119-139.

- Raynaut, Claude. 1988. "Aspects of the Problem of Land Concentration in Niger." In *Land and Society in Contemporary Africa*, edited by S.P. Reyna and R.E. Downs, pp. 221-242. Hanover: University of New Hampshire Press.
- Reyna, S.P., and R.E. Downs. 1988. "Introduction." In *Land and Society in Contemporary Africa*, edited by S.P. Reyna and R.E. Downs. Hanover: University of New Hampshire.
- Rochette, R., A. Salifou, and H. Hamani. 1988. "Étude sur les strategies paysannes en zone agro-pastorale." Niamey, November.
- Salifou, André. 1989. *Histoire du Niger*. Niamey: Éditions Nathan.
- Schwarzmeier, Rainer, and Ingeborg Grimm. 1989. "Étude socio-économique et agro-écologique du site-pilote de Gaya, arrondissement Téra." Niamey: Centre de Formation Supérieur pour le Développement Agricole en Collaboration avec Project Agro-Sylvo-Pastoral, September.
- Smale, Melinda S. 1979. "Niger Agricultural Sector Assessment," vol. 2, part E, "Women in Development Issues in Niger." Washington, DC: Agency for International Development, December.
- Swallow, Brent. 1990. "Strategies and Tenure in African Livestock Development." LTC Paper, no. 140. Madison: Land Tenure Center, University of Wisconsin, July.
- Taylor-Powell, Ellen. 1991. "Women's Roles and Responsibilities in Agriculture." Preliminary desk study. USAID, May.
- Taylor-Powell, Ellen, and Christine Okali. 1990. "Sheep and Goat Owners in Niger: Women Producers." Draft. September.
- UNESCO (United Nations Economic and Social Council). 1972. "Note on the Land Tenure System in the Niger: Customary Rights, Private and Public Domain." Economic Commission for Africa, Seminar on Cadastre, 25 November-9 December 1970, Addis Ababa.
- Wilson, Wendy. 1992. "Women in Niger: Socio-economic Roles in Agro-pastoral Production, Natural Resource Management and Off-Farm Production." Final Report. Prepared for Office of Women in Development, USAID, April.
- Yaroh, Ousmane, Harou Imoussa, Al-Hassane Agouzoum, Mme. Bassoka, Ali Mamoudou. *La régime de la propriété foncière au Niger*. Niamey: École de Pédagogie, Université de Niamey.