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Land Tenure, Local Institutions and Natural Resources in Senegal

SYNTHESIS

VOLUME I

By

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TABLE OF CONTENTS

TABLE OF CONTENTS ii

LIST OF FIGURES vi

PURPOSE OF STUDY viii
Scope of Work viii
Institutional Affiliations and Researchers viii

RESEARCH DESIGN AND METHODOLOGIES viii

LIMITATIONS OF THE STUDY xi

SUMMARY OF RESEARCH FINDINGS AND POLICY RECOMMENDATIONS . . . xii

I. THE CORPUS OF SENEGALESE LAWS ON NATURAL RESOURCE MANAGEMENT 1
A. Overview 1
B. The Legal Framework 1
1. *The "Loi relative au domaine national"* 2
2. *The "Loi relative aux Communautés Rurales"* . . . 4
3. *The "Code Forestier"* 7
4. *Legislation on Pastoralism* 9

C. The Constraints of Land Law 11
1. *The Loi Relative aux Communautés Rurales and Natural Resource Management* 11
2. *The Interministerial Circular on Pastoralism* . . 12
3. *Expropriation for Reasons of Public Utility* . . 13
4. *The Forest Code and Its Implementation* 14

D. Future Directions in Land Law 16
1. *The 1990 Modifications in the "Loi Relative aux communautés rurales"* 16
2. *The "Projet d'Arrêté préfectoral fixant les conditions minimales de mise en valeur des terres du domaine national"* 16
3. *Revisions in the Forest Code* 17
4. *Regionalization and Natural Resource Management* 18

E. Conclusions 20

II. THE INTERFACE BETWEEN TRADITIONAL LAND TENURE AND SENEGALESE LAND LAW 21

A. **Overview** 21

B. **The Land Tenure Situation in Senegal by Agro-Ecological Zone** 21
1. *The Senegal River Valley: A Rapidly Evolving Land Tenure Situation* 22
2. *The Sylvo-Pastoral Zone: The Emerging Tenure Crisis* 28
3. *The Niayes: The Emergence of Peri-Urban Land Markets* 37
4. *The Peanut Basin: Old Tenure Systems in a New Light* 42
5. *Sénégal Oriental: The Last Frontier* 49
6. *The Casamance: The Troubled Eden* 57

C. **Senegalese Land Law and the Interface with Local Level Tenure Regimes** 62
1. *The Selective Acceptance of the Loi Relative au Domaine National* 62
2. *Residents versus Outsiders* 64
3. *Disputes and Dispute Resolution around Natural Resources* 67
4. *The Definitional Ambiguity of mise en valeur* . . 68
5. *Conflictual Pastoralist-Sedentary Relations* . . 69
6. *Women and Land Tenure* 70
7. *Constraints in the Management of the Commons* . . 71

D. **Conclusions** 72

III. LOCAL INSTITUTIONS, TENURE, AND NATURAL RESOURCE MANAGEMENT 73

A. **Overview** 73

B. **Institutions of Resource Management in Rural Senegal** 74
1. *Village Administration* 74
2. *The Hierarchy of Decision Making Concerning Resource Management in Rural Communities* . . . 84
1) Individual Resource Management Decisions . 84
2) The Extended Family 87
3) Traditional Village Level Institutions . . 88
4) Religious Figures 94
5) State Institutions 96

IV. DECENTRALIZATION, THE RURAL COMMUNITY COUNCIL AND NATURAL RESOURCE MANAGEMENT 101

A. Devolution, Legal Frameworks and the Management of Natural Resources 101

B. The Role of the Rural Community Council in Natural Resource Management at the District Level 103
1. *Linkage Between State and Local Communities* . . 103
2. *The Institutional Gap: Planning Coordination Among Villages* 104
3. *Community Council Legislation and the Management of the Commons* 104
4. *Resource Planning and Development Plans* 106
5. *Dispute Resolution and the Rural Community Council* 107
6. *Community Council Facilitation, Not Project Planning* 107

C. Institutional Limitations of the Rural Community Councils 108
1. *Non-Representation of Minority Voices in the Election of Community Council Leadership* . . . 108
2. *The Opportunity Costs of Community Council Membership* 109
3. *Inadequate Training of Council Leaders* 110
4. *Lack of Consultation between the Rural Community Council and Rural Development Organizations* 111
5. *The Politization of The Rural Community Council* 111
6. *The Community Council, Rural Finance, and Natural Resource Management* 112
7. *Institutional Weaknesses of the Centres d'Expansion Rurale Polyvalentes (CERP)* 115
8. *The Contrast between Ideology and Practice: The 1984 New Agricultural Policy and Rural Cooperatives* 117

V. THE RURAL COMMUNITY COUNCIL, NATURAL RESOURCE MANAGEMENT, AND DONOR PROJECTS 119

A. Overview 119

B. Institutional Capacity Building of the Rural Community Council and Sustainable Resource Management 119
1. *The Community Council and the Creation of a Position of "Animateur Communautaire"* 121
2. *The Tasks of an Animateur Communataire* 122
3. *Qualifications of the Animateur Communataire* . . 123
4. *Long-Term Financing of Council Activities* . . . 123

5. *Establishment of the Animateur Communataire Position* 124
6. *Ancillary Project Activities* 125
7. *The Animateur Communataire and the Management of Natural Resources: A Scenario* 126

VI. CONCLUSIONS AND POLICY OPTIONS 128

A. National Land Tenure Policy Options 128

B. USAID/Senegal Program Options 134

ANNEXES 139

I. Terms of Reference 139

II. Calendar of Research Activities 141

III. Case Study Research Objectives 144

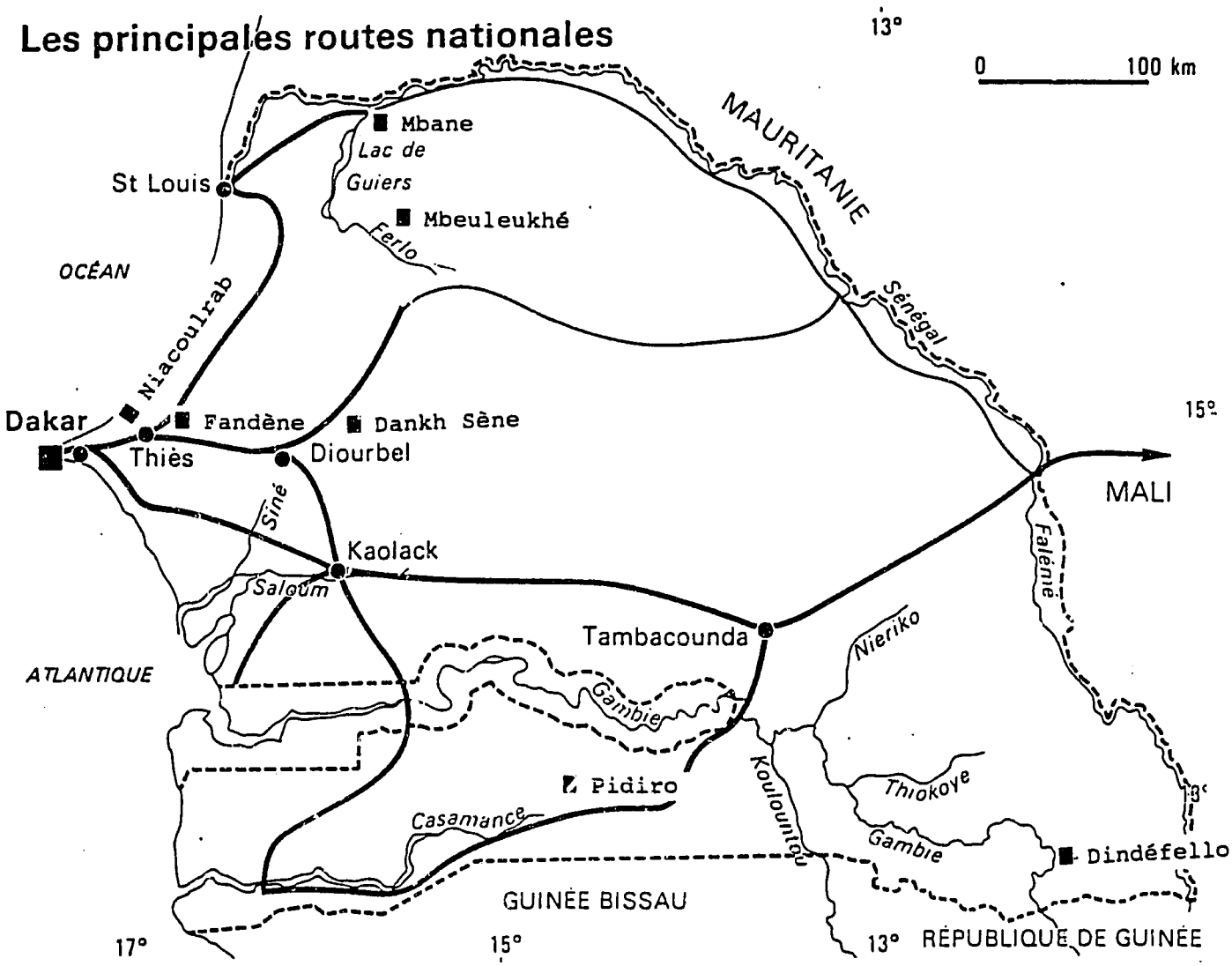
IV. Researchers and Institutions Involved in ReMAPS Case Studies 147

V. Partial List of Environmental Legislation 148

LIST OF FIGURES

Figure 1: Map of Senegal and Case Study Sites vii
Figure 2: Historical Matrix of Mbeuleukhé Agricultural Economy 33
Figure 3: Evolution of Revenue Sources in the Territory of Fandène 46
Figure 4: Sources of Energy for Cooking in the Territory of Fandène 47
Figure 5: Principal Source of Revenue in Dindéfello 55
Figure 6: Venn Diagram of Village Institutions in Dankh Sène 75
Figure 7: Venn Diagram of Village Institutions of Pidiro . . 76
Figure 8: Venn Diagram of Village Institutions of Mbeuleukhé 77
Figure 9: Venn Diagram of Village Institutions of Fandène . . 79
Figure 10: Venn Diagram of Village Institutions of Mbane . . 80
Figure 11: Venn Diagram of Village Institutions in Dindéfello 82
Figure 12: Venn Diagram of Village Institutions of Niacoulrab 83
Figure 13: Natural Resource Management Levels of Decision Making 85

Figure 1: Map of Senegal and Case Study Sites



PURPOSE OF STUDY

Scope of Work

The USAID/Senegal mission requested the Land Tenure Center (LTC) of the University of Wisconsin-Madison to "analyze the present institutional and managerial capacity of the Communauté Rurale (CR) and other local level natural resource planning and management organizations and institutions, including those influencing local level tenure arrangements..." (See Annex I, "Scope of Work.") The Resource Management and Planning Study (ReMAPS) was asked to answer a series of specific questions: What roles do local institutions play in administering the body of land laws and regulations in Senegal; how well are land laws understood at the local level; what kinds of rights do local (traditional) institutions retain over farm land and common property resources; what types of resource management innovations have been undertaken at the individual, village, or rural community council district level; what lessons can be learned from these innovations; what is the managerial capacity of the rural community councils to manage natural resources; what policy and program recommendations emerge out of this analysis?

Institutional Affiliations and Researchers

The Land Tenure Center research scientist Dr. Mark Schoonmaker Freudenberger coordinated the ReMAPS project. The center worked in close collaboration with three Senegalese academic institutions in both the design and implementation of the project. The unqualified, generous, and enthusiastic assistance of the following institutions and principal researchers are:

-The Ecole Nationale d'Economie Appliquée (Bara GUEYE)

-The Institut des Sciences de l'Environnement of the Université Cheikh Anta Diop de Dakar (Dr. Bienvenu SAMBOU)

-The Unité d'Enseignement et de Recherche de Sciences Juridiques (Dr. Samba TRAORE)

The principal researchers from each of the above institutions incorporated a total of eighteen faculty, students, and consultants into the preparation of the case studies reviewed below (See Appendix IV, "Researchers and Institutions Involved in ReMAPS Case Studies"). This is a valuable pool of highly skilled and motivated researchers that should be incorporated into future research activities on natural resource management.

RESEARCH DESIGN AND METHODOLOGIES

This section describes briefly the methodology used during

the ReMAPS project to generate the information and conclusions presented in this study. The ReMAPS research program consisted of five phases:

1) Preparation of Research Design

The principal researchers met for two weeks in early April, 1992 at the Land Tenure Center to review the scope of work. The ReMAPS team designed detailed research objectives, put together a work plan, and apportioned the field research budget among the three collaborating institutions. Seven case study sites were chosen in the major agro-ecological zones of the country at this time.

2) Case Studies in Agro-Ecological Zones

The seven case studies identify from an historical perspective the institutions, rules, and practices that govern the use of natural resources in the major agro-ecological zones of the country. Each case study describes the evolution of social practices employed by often highly differentiated and at times conflictual user groups to extract a livelihood out of the forest, grassland, soil, and water resources of a particular village territory. The case studies review briefly the activities of environmental projects. Each study concludes with a series of policy recommendations (See Appendix III: Case Study Research Objectives).

The ReMAPS team used Participatory Rural Appraisal (PRA) research methodologies in field work.[1] A multidisciplinary team was put together for each case study and at least one woman participated on each team to help assure the integration of gender issues into the data collection process. The teams met for two days prior to the field work to review the literature on the case study site. Six to seven days were then spent in the study village. Afterwards, the team met for two to three days to write a preliminary draft report that was then edited later by the team leader.

The complete text of each case study is presented in Volume II of the ReMAPS final report. The findings from each case study are incorporated primarily into Section III of this volume, "The Land Tenure Situation in Senegal by Agro-Ecological Zone" yet examples from each are cited throughout this volume.

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[1]John Bruce. "La foresterie communautaire: Evaluation rapide des droits fonciers et propriété de l'arbre et de la terre," Rome: FAO, 1991 and; Bara Gueye and Karen Schoonmaker Freudenberger, "Introduction à la méthode accéléré de recherche participative (MARP)." London: IIED, août 1991.

The seven case studies were conducted in the villages listed below and in the following agro-ecological zones :

Senegal River Basin

-Case Study no. 1: Mbane, Department of Dagana, Region of Saint-Louis

Sylvo-Pastoral Zone

-Case Study no. 2: Mbeuleukhé, Department of Linguère, Region of Louga

Peanut Basin

-Case Study no. 3: Fandène, Department of Thies, Region of Thies

-Case Study no. 4: Dankh Sène, Department of Diourbel, Region of Diourbel

Niayes

-Case Study no. 5: Niacoulrab, Department of Rufisque, Region of Dakar

Agro-Sylvo-Pastoral Zone

-Case Study no. 6: Dindéfello, Department of Kédougou, Region of Tambacounda

Casamance

-Case Study no. 7: Pidiro, Department of Kolda, Region of Kolda

3) <u>Conference on "Natural Resource Management by Local Collectivities"</u>

The Unité d'Enseignement et de Recherche de Sciences Juridiques of the Université de Saint-Louis and the Land Tenure Center organized a conference on "Natural Resource Management by Local Collectivities" from November 3-5, 1992. The purpose of the conference was to generate a broader debate on land tenure, local institutions, and natural resource management. The gathering of academics, government officials, rural development project personnelle and some representatives of rural associations was the first ever conference held by the UER de Sciences Juridiques. Over sixty people attended the plenary and thematic sessions. The conference program and proceedings are presented in Volume IV of this study.

The conference focused on the issues of decentralization and regionalization and the linkages to natural resource management. The first day was devoted to a review of current trends in the discourse on decentralization. The second day was allocated for the presentation by the ReMAPS team of its case study research findings. The third day tackled the issue of regionalization and

the potential impact on natural resource management.

4) Bibliography on Land Tenure in Senegal

The Land Tenure Center compiled a detailed bibliography on recent documentation pertaining to the legal analysis of land tenure and natural resources. This document organizes the literature by topical theme and lists the major references on tenure in the six selected agro-ecological zones of the country. This bibliography constitutes Volume III.

5) Preparation of Final Report

The ReMAPS team met for one week at the end of October, 1992 at the Keur Kanni hotel at Lac Rose to review the case studies, prepare the conclusions and recommendations for the final report, and write papers for the Saint-Louis conference on "Natural Resource Management by Local Collectivities." This final report represents the consensus and conclusions reached by the entire ReMAPS team. The draft report was written in November and December. A mission briefing provided the opportunity to present the core analysis and central findings.

LIMITATIONS OF THE STUDY

The study was completed in a very short period of time, nine months from the time the ReMAPS team met to first define research objectives to the submission to USAID/Senegal of the draft report. As in any study dealing with such an exceedingly complex subject as the land tenure and natural resources situation in an entire country, a tension exists between the need for brevity and simplicity on one hand and depth and precision on the other. Hopefully, a balance has been struck on an issue that has generated an enormous amount of literature but remarkably little recent fieldwork.

The ReMAPS team was frustrated by the lack of time available to transform the seven case studies into more polished academic works. Gaps remain in each study that require further reflection, writing, and some field work. Despite this problem, each of the collaborating institutions has now developed a new research agenda that will focus on many of the issues raised in this study and indeed the UER des Sciences Juridiques and the Institut des Sciences de l'Environnement plan to return to some of the sites. Several of the graduate students participating in the study have selected topics for additional in-depth research. Researchers from the Institut Sénégalais de Recherche Agricole (ISRA) have also adjusted research agendas as a result of participation with the ReMAPS project.

SUMMARY OF RESEARCH FINDINGS AND POLICY RECOMMENDATIONS

The USAID/Senegal mission requested the Land Tenure Center (LTC) of the University of Wisconsin-Madison to "analyze the present institutional and managerial capacity of the Communauté Rurale (CR) and other local level natural resource planning and management organizations and institutions, including those influencing local level tenure arrangements..." (See Annex I, "Scope of Work.") The Resource Management and Planning Study (ReMAPS) was asked to answer a series of specific questions: What roles do local institutions play in administering the body of land laws and regulations in Senegal; how well are land laws understood at the local level; what kinds of rights do local (traditional) institutions retain over farm land and common property resources; what types of resource management innovations have been undertaken at the individual, village, or rural community council district level; what lessons can be learned from these innovations; what is the managerial capacity of the rural community councils to manage natural resources; what policy and program recommendations emerge out of this analysis?

Section I: "The Corpus of Senegalese Laws on Natural Resources"

Tenure is simply the term for the rights which individuals and institutions have in land and other resources. In recent years, there has been a growing realization that the nature and extent of these rights, and the confidence of holders that they will be honored, form an important part of the incentive structure of resource users. By framing those rights effectively, to provide secure expectations of continued access to resources, policy makers can increase incentives for resource users to take the long view, conserving and regenerating rather than depleting the resource base upon which they rely for their livelihoods. Alternatively, dysfunctional tenure rules and institutional arrangements can lead to resource degradation.

The laws, regulations, and administrative edicts governing the use of natural resources in Senegal are numerous and complex. The broad outlines of key laws and legal concepts are understood at the village level, though rural leaders express a strong interest in rural legal education. A deep tension exists in the legislative arsenal. Public policy and legal statutes promote user-based management of natural resources and local-level rule making, yet at the same time, these same statutes confer veto powers to the administration. The *préfet* and the *sous-préfet* exercise frequently their authority to veto the legislated proposals of the local collectivities, known as the "rural community council" (*communautés rurales*). This reduces the incentive for rural community councils to craft rules regulating the use of natural resources.

The 1964 *Loi Relative au Domaine National* and the 1972 *Loi Relative aux Communautés Rurales* are the twin pillars of national land law in Senegal. Both are innovative and flexible compilations of laws and regulations that provide a legal framework for local communities to plan and implement community based natural resource management activities. The legislation is unique in West Africa for it promotes "co-management" arrangements between the state and rural civil society. This orientation is now prevalent in micro-territorial development programs (*gestion/ aménagement du terroir villageoise*) found across the Sahel. The USAID/Senegal is in an enviable situation found nowhere else in West Africa. The legal instruments are in place for participatory and decentralized natural resource planning to occur, the central task is to make the tools work.

The 1964 *Loi Relative au Domaine National* abolished traditional land tenure systems and placed control over land and other natural resources in the hands of the state. This measure was justified, the Senegalese government felt during the first years of independence, because customary landholders were believed to be engaged in exploitative labor and land use practices that constrained growth in the export oriented peanut economy. In contrast to much of the land legislation passed in other West African countries in that era, the Senegalese innovation consisted of retroceding land allocation prerogatives back to democratically elected representatives of rural community council districts.

The 1972 *Loi Relative aux Communautés Rurales* sets up the institutional structure of the rural community councils and defines the attributes of the members (*conseils ruraux*). Village representatives, elected to five year terms on political party slates, can allocate land based on the condition that it is exploited in an economically productive fashion (*mise en valeur*) in conformity with national and local development criteria. If land is used in a manner deemed non-productive by the rural community council, it can be retroceded back to the council and reallocated to other users. Officially, all land transactions, such as the borrowing and transfer of fields from one farmer to another, must pass through the rural community council. All transactions are to be kept in a land register and allocated lands are to be surveyed and demarcated.

The laws explicitly promote a local level natural resource planning process. The *Loi Relative aux Communautés Rurales* vests in 318 rural councils the responsibility for allocating land to individuals and groups residing in the administrative district "as a function of the beneficiaries to assure, either directly or with the aid of their family, the development of their lands according to a program established by the council." The community council determines the minimal conditions for productive development (*mise en valeur*) as a function of local

development plans prepared by the council. Much legal ambiguity nevertheless surrounds the concept of "*mise en valeur*." Nowhere in the legislation is the term defined explicitly. The decree no. 80-1051 of October 14, 1980 gives the *préfet* the authority to define, if necessary, the minimal conditions of *mise en valeur* as a function of the economic and ecological specificity of the district. This provision could be used by the authorities to require farmers to adopt certain sustainable agricultural technologies as a condition of land use, though the administration has not yet invoked this option.

The *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* grant rural community councils the right to allocate land, plan local development activities, employ as much as 75% of the rural tax for these development projects, and resolve land disputes. Several provisions vest in the rural community councils the power to express resource use preferences. One of these is that the "community council determines all rights of usage in the interior of its territory" and that the "rural council expresses its wishes on all regulatory measures that it judges useful to apply within its territory in order to obtain a judicious exploitation of resources and an effective protection of agrarian resources of all kinds..." An amendment to the core legislation adds that "the rural council deliberates everything that is within the jurisdiction granted by the laws and notably... the fight against fires and forest fires; the regime and the modalities of access to water points of all types; the creation and the installation of livestock paths within the interior of the territory of the rural community; planning for the exploitation of all forest gathering products and wood cutting."

Senegalese natural resource policy and legislation articulate an ideology of decentralization and local level empowerment of resource user-groups. For example, the 1984 *Nouvelle Politique Agricole* proposes that populations be granted an increased degree of responsibility in the development process and that the state is to be no more than a catalyst for local initiatives. Recent modifications proposed to the 1972 Forest Code reinforce this approach in that, among other new provisions, the forestry service can cede control over forests to "rural collectivities" (eg. Rural Community Councils, *Groupements d'Intérêt Economiques*, or rural federations) following the elaboration of a forest management plan designed by the forestry service. Legislation passed in the early 1980s gives pastoralist communities the opportunity to create protected grazing zones. Presidents of rural community councils now possess the authority to determine and implement the budget of the council.

Administrative practice clashes at times with the rhetoric of decentralization. The administration vetos local level legislation, and as the ReMAPS study shows, this power of

annulment is exercised regularly. Even though the rural community councils possess the authority to craft local rules regulating the usage of natural resources, the administration (the *sous-préfets* and *préfets* of the Ministry of Interior) may in fact veto any of their decisions. The law is clear. "The deliberations of the community council cannot be executed until they are approved by the appropriate tutelage."[1] This measure may be construed as a "checks-and-balances" provision that prevents rural communities from enacting legislation that could lead to the rapacious exploitation of natural resources. In practice, however, the provisions grant the administration enormous powers to block local level initiatives deemed contrary to state interests. *Préfets* are known to have stymied initiatives by rural community councils that sought to protect the resources of their districts against excessive exploitation by powerful non-resident agricultural and commercial interests. While the council may appeal the veto decisions as an "arbitrary exercise of power," this appeal process is rarely invoked as it is legally complicated and time consuming.

Despite major innovations in the new versions of the proposed Forest Code, no provision spells out the mechanisms rural collectivities can employ to design new resource use arrangements. Enforcement of the Forest Code still rests entirely in the hands of the forestry service rather than as a joint affair between villagers and the state. Villagers remarked to the ReMAPS team that this omission is a disincentive to village level resource management since the impression is fostered that forests and pastures used as commons belong to the state and not the local collectivity.

Section II: "The Interface between Traditional Land Tenure and Senegalese Land Law"

The land tenure situation in Senegal is very complex due to the geographical diversity of the country. Land tenure problems that occur along the Senegal river, for example, are quite different than those found in the Peanut Basin. For this reason, the ReMAPS study analyzed the land tenure and resource use context in six distinct agro-ecological zones. Neither time nor financial resources permitted a more extensive coverage.

Customary land tenure regimes remain remarkably strong in rural areas despite the nearly thirty year existence of the *Loi Relative au Domaine National*. In those areas where land and other natural resources are not highly valued for commercial agricultural purposes, traditional land tenure regimes continue to operate much as they have in the past. The ReMAPS case studies showed that as a consequence of the long series of dry years commencing in the early 1970s and poor economic incentives, many communities are abandoning cash crop production of groundnuts and diversifying into other income generating

activities ranging from tree crop collection and fruit tree production to employment in the cities and overseas. In the Fandène case study, for example, households now invest labor in mango and *rônier* tree crop production rather than peanuts.

In many parts of the country, the ReMAPS case studies showed that rural populations are investing their surplus resources in livestock production. The northern reaches of the Peanut Basin between the latitudes of Thiès and Louga are evolving into pastoralist zones as field crop production becomes increasingly marginal. Tenure to water and pastures have become important issues in the rural economy. For this reason, several of the ReMAPS case studies looked at the interface between livestock production, tree crop gathering, and field crop cultivation.

Land once valued for peanut production, for example, is declining yet at the same time lands highly regarded for fruit tree orchards, horticulture, grazing, or urban land speculation is rising rapidly. The ReMAPS case studies showed that customary tenure regimes generally operate unencumbered on marginal lands and farmers perceive that they have relatively secure rights to land. The lineages and clans that possess historically determined rights of first occupancy tend to remain the dominant forces in the allocation of rights of land usage on those lands not valued highly for commercial agricultural exploitation.

In those areas where land, pastures, and trees are rapidly increasing in value, conflicts emerge as various user groups attempt to lay exclusive claim to the resources. Tenure insecurity similarly increases as long-term residents try to protect their resources against expropriation by non-resident individuals and groups. At this juncture, the *Loi Relative au Domaine National* becomes a dominant element in the conflictual process. Interest groups try to manipulate the law to serve their particular needs. The ReMAPS team found that on lands highly valued for commercial or speculative purposes, such as along the coastal Niayes near Dakar, traditional land loaning practices are disappearing. Traditional land owners fear that loans of land of more than two years will give borrowers legal justifications to acquire the plots from the rural community councils. Land owners thus forbid land borrowers from tree planting and other permanent soil and water conservation investments. As a result, land borrowers often have little incentive to conserve land.

Customary land owners employ a wide range of techniques to demonstrate that land is being fully exploited (*mise en valeur*), even though some of these practices are ecologically harmful. Farmers near Mbour is cleared and planted with little to no intention of harvesting crops simply to show that the land is in production. Land owners may loan land for only a season or two in some areas and in these cases, only let out the land in the

middle of their fields in order to demonstrate to all that it is indeed a loan. These same owners may invest considerable labor and time in planting fruit trees on their land and delineating their fields with boundary markers.

Tenure insecurity exists around lands suitable for commercial agricultural ventures. The legal concept of *mise en valeur* is used by entrepreneurs to demonstrate to the community councils that traditional land use activities are economically less productive than "modern" techniques of intensive commercial agriculture. Within the Delta of the Senegal river, within close proximity to the river, entrepreneurs try to demonstrate to the community councils and the administration that the land is not sufficiently "*mise en valeur*" and that it should therefore be allocated to those capable of investing in improved irrigated agriculture. Much to the consternation of livestock owning populations of Wolof and Fulbe, the transformation of grazing lands into irrigated agriculture may threaten the future of livestock production.

High demand for economically valuable lands is leading to the emergence of land markets in peri-urban areas near Dakar. Public land managed by community councils may not be legally sold, yet one finds flourishing land markets for agricultural lands. The ReMAPS case study in Niacoulrab showed decisively that elder members of land owning lineages are selling lands to "Sunday farmers" who in turn await the day when the land they currently use for orchards will be sold and subdivided for urban settlements. Younger generations in the affected rural communities fear permanent dispossession of lineage lands. This conflict pits the younger generations against their elders.

Disputants calculate carefully what judicial course they will take to acquire or protect access to natural resources. Some rely on the modern legal corpus to justify claims to land; others fall back on customary norms to protect long-held rights. Disputants generally go to great lengths to try to resolve land conflicts through traditional dispute resolution bodies (eg. village chiefs, councils of elders, imams, customary dispute mediation groups) as the outcome of the dispute is often perceived as being more just and conciliatory. When this venue fails, the rural community councils become the forum for the dispute resolution. Out of this dispute resolution process a set of land use norms and practices unique to the community council district emerges that is neither in accordance with legal statues nor in full conformity with customary land law.

The failure to adjudicate successfully land disputes and devise new rules of resource use may result in the end in the outbreak of violence. "Tenure pressure points" exist in many areas in Senegal, simmering places of unresolved land disputes that can suddenly erupt into explosive violence. The severe

civil disturbances in the southwestern Casamance may in part be explained by a deep seated fear of the Diola that natural resources are being irrevocably lost and decimated by the arrival of migrants from many parts of northern Senegal, themselves fleeing from the decades of drought and environmental degradation found there. The Senegal-Mauritania crisis can in part be linked to the frustrations stemming from the expulsion by Senegal in April of 1988 of the extensive Mauritanian camel herd grazing at that time in the Ferlo. Tensions building up around destruction to trees, gardens, and fields by livestock triggered the cataclysmic violence between the peoples of Senegal and Mauritania.

Tenure pressure points are felt elsewhere as well. The ReMAPS case studies show that violent conflicts risk becoming more serious between farmers involved in irrigated agriculture and pastoralists loosing access to water and pastures engulfed by perimeters along the Senegal river and the Lac de Guiers; pastoralists in the Ferlo may violently confront each other for control over boreholes and the surrounding pastures; Fulbe pastoralists and Mouride farmers will continue to struggle over access to prime lands in the northern Peanut Basin so necessary to the livelihood of both and; farmers may resist forcefully expulsion from traditional farm lands if the Canal du Cayor does indeed result in the resettlement of villages. Within rural communities, tensions similarly arise as women engaged in horticulture struggle to acquire firm rights to gardening lands from land owning lineages.

The political stability of Senegal depends to a large extent upon the abilities of local level rural institutions to resolve conflicts around natural resources. The process of resolving conflicts establishes new rules of resource use and hence new tenure regimes. It is important to monitor the extent and dynamics of resource conflicts as this is often an indication of whether tenure systems are functional or not. Insecurity of tenure is often a disincentive to investment of labor in the protection and regeneration of natural resources.

Section III: "Local Institutions, Tenure and Natural Resource Management"

The ReMAPS study found that decisions regulating the use of natural resources are made by a wide variety of individuals and institutions. This section utilizes one of the ReMAPS research tools, "Venn Diagrams" to list the types of institutions that affect the use of natural resources. Individuals exercise considerable choice in how resources are used in the field. But resource management decisions are also affected by members of the extended family, traditional village institutions, religious figures, and a wide range of state institutions.

The ReMAPS case studies sought to identify institutional innovations in resource management. The case studies showed that in some cases councils of village elders still play a pivotal role in managing the natural resources found within village territories. Village elders are often able to enforce rules on the use of resources. For instance, in the case study in Fandène, village elders allocate very effectively tenure rights to the valuable lands used for mango and rônier tree crop production. In other cases, new institutions have appeared to respond to very specific ecological problems. These cases show that rural communities can innovate successfully to create social organizations to respond to immediate crises. For instance, the "*Fédération de Lutte Contre les Feux de Brousse*" in the Arrondissement of Yang Yang near Linguère has succeeded in putting a strop to destructive bush fires which have long destroyed dry season grazing reserves. The "*Section Villageoise*" of the Agricultural Cooperative of Mbane along the Lac de Guiers has facilitated the access of women and Fulbe pastoralists to irrigated perimeters. The youth of the "G.I.E. de Fandène" are trying to put in place a resource management plan for the degraded "*gol*" forest as part of a sophisticated political strategy to reduce land speculation associated with the passage of the Canal du Cayor through its territory. The "G.I.E. de Fandène," for example, has become a governance institution that complements well the traditional council of elders.

The existence of a wide number of organizations involved in development activities at the local level leads to competing and contradictory roles. Some of the "modern" institutions, such as the "*G.I.E. de Fandène*" have assumed territorial governance powers and thus they are viewed with suspicion by both the administration and the rural community councils. Inter-village federations have formed throughout Senegal and they have taken on many of the service functions of government agencies. Centers of institutional authority compete for influence in rural communities and this renders difficult the task of creating resource use arrangements. No institutional body possesses sufficient power nor legitimacy to legislate rules and regulations governing the use of natural resources at the local level.

Governmental and non-governmental development organizations should continue to work with the vast myriad of village level institutions and individuals they have traditionally served. These organizations play a very important role in defining and enforcing the rules and practices governing how natural resources are used within village territories. Their members are the repositories of a rich wealth of indigenous knowledge so much needed to design appropriate natural resources programs. The initiatives by USAID/Senegal and other donors to link non-governmental donor agencies with grassroots village groups should continue. These relationships meet locally defined needs to

diversify survival strategies in a flexible and creative fashion. The donor community and government should continue to experiment with new forms of providing information, technical assistance and credit that compliments rural population's survival strategies.

Difficulties are encountered by village institutions in the management of resources held in the commons, generally those forests and pastures found at the periphery of village territories. Inter-village cooperation is required to facilitate the creation of cooperative agreements regulating how resources are to be jointly used. Without rules governing how the shared use of the commons, a free-for-all may occur and lead to severe overuse. The ReMAPS team found that the commons such as pastures in the Ferlo, wooded areas in the Peanut Basin, and fishing areas along the Lac de Guiers suffered from overuse since no inter-village mechanism existed to coordinate the exploitation of the resources. The rural community councils can play a very important role in filling this institutional vacuum.

The rural community council is noted by villagers as an ever present body, but of varying degrees of importance. Rarely is the rural community council identified as a central development body generating benefits equivalent to those of village associations linked to non-governmental organizations, village development committees supported by overseas and urban based migrant workers, or *Groupements d'Intérêt Economiques*. However, the rural community council is the only democratically elected governance institution at the local level. Despite its many structural problems, the community council plays a potentially important role in legislating local level rules governing the use of natural resources. The ReMAPS team concluded that donor agencies should seek means to increase the institutional capacity of the rural community councils to better control the use of natural resources.

Section IV. "Decentralization, the Rural Community Council and Natural Resource Management"

The proliferation and diversity of rural institutions renders exceedingly complex the function of the rural community councils. The rural community councils studied by the ReMAPS project all encounter severe institutional limitations. Most councils lack authority in the eyes of the district populations. The land allocation function of the council is rarely invoked. The sphere of actual influence of the institution is severely constrained even though the law provides for many resource management prerogatives. Many reasons may be cited for this institutional blockage.

The counsellors themselves are uncertain of their respective leadership roles since they receive relatively little high quality training and incentives. Few counsellors have a clear

idea of how to manage complex budgets and tax revenues. The councils may lack legitimacy because the councilors do not reflect the ethnic, economic, and political composition of their districts. Dynamic women's associations, often of considerable economic weight, are rarely included on the community council. Similarly, youth are not represented in the numbers commiserate with their relative importance in the population. Minority ethnic groups are often unable to gain positions on councils. For this reason, women's associations, inter-village federations, and G.I.E.s tend to compete with the community council for local level leadership.

The community council structure is severely weakened by the nearly total absence of coordination and consultation between the council and rural development organizations. Even when "Plans Locales de Développement" exist, they play virtually no role in the choice or location of projects. A large portion of rural tax revenues are allocated by the councils for local development activities. Tax collection rates are declining in Senegal due to the lack of confidence the rural populations have in government institutions. A vicious cycle sets in whereby the lack of sufficient revenue reduces the scope of council development projects which in turn lessens the willingness of the tax payers to pay taxes. Without projects the community council lacks authority and, without authority and respect, it cannot be a useful resource management organization. The citizenry simply perceive the community council to have a limited function and thus they prefer to regulate most resource management issues at the village sphere and avoid interactions with the state.

Despite the weaknesses of the rural community councils, they will most likely be a permanent fixture of Senegalese rural society. The rural community council represents the lowest representative body of government above the village level and thus the state will not do away with the institution. Within a national milieu of great cultural diversity, the rural community council provides a certain degree of administrative unity. The rural community councils possess rule making powers under the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* that allows local level law making to suit the particularities of diverse societies, economies, and ecologies. While the full potentiality of the institution has yet to be felt, the rural community councils have played a very important role in mitigating disputes and in the process, defining tenure systems that are amalgamations of a sophisticated and complex legal corpus but also a mix of culturally determined traditional resource allocation norms.

Central government and donor development organizations have a role to play in strengthening the governance functions of the rural community councils. The policy emphasis should be directed towards increasing the capacity of the rural community councils

to manage resources that are used as commons (eg. forests, pastures, water points, inland fisheries...). The niche for the community council is to develop a cooperative relation with the state to create true common property management regimes - systems of rules and regulations enforced jointly by the state and local populations that allow the later to negotiate the rights of conditional exclusion of non-residents to a district and to define responsible use of natural resources used collectively by the community. Programs should be put in place to increase the respect and authority of the rural community councils, for if this occurs, there stands a much better chance that the council will be able to craft and enforce appropriate rules and regulations governing the commons.

The rural community councils cannot and ought not be directly involved in managing productive income generating activities. Committee management of productive projects does not usually bode well. This does not mean that rural community councils should not try to increase tax revenues. The community council of Sangalkam, for instance, taxes the trucks that go out to the Lac de Rose to transport salt and then it uses these funds to pay for the maintenance of the dirt road around the lake. Other revenue generating options exist, such as the taxation of water around tubewells.

Programs can be designed to train better the community council members in planning, financial management, and legal affairs. One of the critical tasks is to reduce the veto powers of the administration over the council. This will not occur, however, until the councils demonstrate the capacity to legislate effective local level rules. The ReMAPS team proposes below a comprehensive method to increase the governance capacities of the rural community council.

Section V. "The Rural Community Council, Natural Resource Management, and Donor Projects"

This section sketches out a set of options to consider to increase the ability of the rural community councils to manage more effectively the natural resources of their districts. The option presented below represents only one of a series of recommendations proposed by the ReMAPS team, but it lays out a "fundable project" that may be of immediate utility to the USAID/Senegal mission. This proposal outlines a mechanism that would lead to more effective local level and participatory planning by the community council itself. The assumption behind this proposal is that the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* constitute an appropriate institutional framework for participatory and decentralized management of natural resources.

Institution Building, Natural Resource Management, and the Establishment of the Post of "Animateur Communautaire"

The USAID/Senegal, in collaboration with the government of Senegal, should consider an institutional innovation to the community council that would increase the capacity of the council to carry out its mandated function. This entails the creation of a position of "*animateur communautaire*." This person would be hired by the community council to serve in essence the function as the "executive secretary" of the rural community council. This person would play several functions. The animator would be a legal advisor, lobbyist for the community council, a project planner, and a financial specialist. Like a city manager or "conseil technique" the animateur would respond to the policy directives of the council itself. When the animator could not respond to the need for specific advice or information, s/he would contract out the services of specialists. The qualifications of the animateur would be somewhat similar to the CERP staff, with the major difference that the council would have full rights to hire and fire such a person and that eventually the person's salary would be paid for out of the community council's budget.

The mandate of the animateur might be limited to the term of office of the community counsellors, though it would be subject to renewal by majority vote of the council membership. The long-term objective would be for the community council to use council revenues to pay the salary of the *animateur communautaire*. If the animator indeed helps the community council to implement projects and programs of interest to the entire community, then the tax revenues and other resources will most like be generated to cover salary expenses. Over time the position of the animateur communautaire may become a standard element of all the rural community councils in Senegal.

The donor project would provide funds for a predetermined time directly to the community council to hire a qualified *animateur communautaire*. The project would help the council identify a group of qualified candidates and help organize selection interviews and eventually training of this organizer. Once the animator is hired, a process would be set in place leading eventually to the establishment of village level and community council development plans. External funds would be made available for the implementation of these council plans.

The donor project would establish a matching grant program in which the initial pilot rural community councils paying 100% of their taxes would receive an "incentive grant" of say, 300% the value of the tax revenues. Block grants would be paid out over the course of a five to ten year project. Incentive structures would be built into the grant to encourage not only full payment of taxes but the generation of revenues through

other legally available means. The *animateur communautaire* would work with the council to identify appropriate projects for the community council. No strings would be attached to this initial matching grant. Funds could be used for whatever purposes deemed to be priorities by the community council.

Natural resource management activities (eg. construction of firebreaks, roadside tree planting, live fences along cattle tracks, improvement of natural water sources, community council seed nurseries, subsidies for the construction of soil and water management devices, planning of water and pasture use strategies) would be paid for by the community council out of a separate fund especially set up for these types of initiatives. Such activities would be identified and designed out of the participatory planning process conducted at the community council and village level.

The CERP and the donor project staff would initially play a central role in the coordination of such a program. These organizations would work with the pilot community councils to identify a candidate pool of suitable rural community councils. The project would need to be initially tested in a limited number of districts. Councils currently paying 100% of their annual taxes might be selected from the first year's pool. For the second phase a group of potential CR candidates would be identified and notified that if rural taxes were paid in full, the project would be instituted in their districts. Simple project monitoring procedures would be put in place to allow surveillance of expenditures by the citizens of the community council, the donor, the CERP and the sous-préfecture.

The Tasks of an "Animateur Communautaire"

The *animateur communautaire* would develop with the community council leaders a training program for its own council members. The animator would conduct a needs assessment among counsellors to determine priority training needs. If the council membership deemed it important, the animateur might initially conduct a series of workshops on legal education and financial management. Training might be offered in participatory planning for the community council leadership. The animator could use the techniques of Participatory Rural Appraisal (PRA) to work with the counsellors to do a diagnostic of the development constraints and opportunities in the district. The counsellors would be trained to replicate this type of study at the village level. Development plans prepared by the counsellors themselves would remain in the council district itself.

The long-term objective would be to develop coordinated "*plans de gestion du terroir villageois*" for the villages of the community council district. Development institutions with skills

in this domain (ie: Foresterie Rurale program, non-governmental development agencies) could be contracted by the community council to work in villages to set up a planning process. Village "gestion du terroir" plans would be discussed and filed in the community council headquarters. The formulation of village development plans would feed into the community council planning process. Funds at the disposal of the council would then be directed to the projects identified by the village communities.

Qualifications

Candidates for the position of animateur communautaire would be selected by the community council from a pool of highly qualified people with extensive experience in community development activities (ie: ENEA graduates, former CERP staff, ex-Animateur Rurale staff). The salary of the animator would be paid initially out of project funds provided directly to the community council and deposited in the departmental treasury. The salary would be equivalent to that of a CERP extension officer. The project might provide the community council with a motorcycle for the transport of the animateur rurale. Fuel and maintenance would be paid for out of the council budget.

Long-Term Financing of Council Activities

The project grant to the community council would be contingent upon the payment of taxes and the generation of alternative sources of tax revenues. The intention of the project would be to increase the revenue collection capacity of the council through a block grant program. Rural community councils implementing natural resource management activities might receive supplementary contributions.

Revisions in the revenue generating process would be sought during the course of the project. A large number of proposals have been presented, such as those of the recent Club du Sahel mission of Sheldon Gellar, Gérard Chambas and Oumar Kamara. Options exist to increase rural community council revenues, but these may not tap into the considerable sums invested through development projects. Legislative reforms might be introduced by the government of Senegal to give the rural community council the right to extract a 1% tax on all projects (NGO and donor) that have actions in a particular community council district. This tax would be used to pay for the rural community council animator who would help generate further projects, help continue a village/community council planning process, and finance micro-projects that most donors would not be able to do (schools, road maintenance, water resources, etc). The funds would then be used by the community council to contract out services from the government and private firms for specific actions. (ie. Eaux et

Forêts and tree planting, Service d'Equipement for construction of roads, etc.) This would be a conditional tax dependent upon the continued hiring of an *animateur communautaire* by the community council, the on-going implementation of development projects, and the up-dating of community development plans.

Ancillary Project Activities

The donor project would finance the technical support for this initiative. Funds would be allocated to such training institutions as the Ecole Nationale d'Economie Appliquée (ENEA) to devise simple accounting procedures for the rural community councils. Funds might be used by the ENEA to devise a training curriculum in functional numerical training of community council members. This methodology would be taught to the *animateur communautaires*. Similarly, the Unité d'Enseignement de Sciences Juridiques of the Université de Saint Louis might be contracted to devise a legal education program for community council members and the animators. Non-governmental organizations and government institutions with extensive rural planning experience (eg. ENDA, PIP, Oxfam, Projet Foresterie of the Eaux et Forêts) might be contracted out to develop the appropriate participatory planning tools.

The Animateur Communataire and the Management of Natural Resources: A Scenario

The following scenario may help to clarify the objectives and potentials of the above proposal.

The animateur communautaire and counselors of a community council in northern Senegal note during a village level planning exercise using Participatory Rural Appraisal tools that the sump tree (Balanites aegyptiaca) is a vital source of women's income through the sale of fruit and hand processed oil, especially during drought years. However, one of the key constraints to oil production is the dehulling of the hard kernel of the sump seed, a tedious and time consuming process conducted by children and old women. Perhaps if this constraint is removed through the design of a sump kernel cracking machine, productivity can be increased and hence women's income. Following the directives of the community council and the village associations, the animateur communautaire is charged to contact government and non-governmental institutions for technical assistance. She goes to Dakar to make the rounds of the technical schools and non-governmental agencies. Eventually she finds that the non-governmental organization RADI has experience in the oil-press domain due to its collaboration with the American NGO Appropriate Technology International. Community council funds are used to pay RADI for a technical feasibility study. Eventually RADI locates a machine for testing in the area based on models tried

elsewhere in Africa. RADI lacks sufficient funds for the development of a testing program so the community council uses some of its funds to pay for the purchase of experimental kernel cracking machines. The council advises RADI where and how to set up a testing program. Eventually a perfected machine is developed. The community council and the animator work with the village women's association to develop an appropriate credit and marketing system for the tool.

The community counsellors and the villages involved in sump collection note after a couple of years that the Balanites species is not regenerating quickly. They suspect that the harvest of fruits and nuts has limited the seed stock in the soil and that heavy grazing by livestock have harmed natural regeneration. The council asks the forestry service to assess the situation. Following protracted discussions, the forestry service, the community council, and women's associations decide that the best course of action to regenerate the tree is to establish a rotation system whereby certain acreage are left unharvested and grazing is severely controlled every couple of years in order to allow the regrowth of young seedlings. Great care is taken in these years to control forest fires by cutting firebreaks around the plots. Some weeding takes place around some of the seedlings in order to spur seedling growth. Youth are hired with council funds to keep out goats and sheep during the dry season.

The rural community council prepares an edict laying out the rules of forest use. All herders are informed through the Borehole Management Committee that they are to by-pass the plots when herding their cattle through the zone. The council establishes system of fines for non-observance of the rules. The forestry service, the gendarmerie and the sous-préfet are asked to help enforce these provisions in case of non-compliance.

This scenario hopefully provides an illustration of how such a system might work. The example demonstrates how the rural community council could serve the interests of specific resource user groups and help to develop a common property management regime around a valuable tree species. Similar scenarios should be thought through as part of an exercise to flush out the strengths and weaknesses of this proposal.

Section VI. "Conclusions and Policy Recommendations"

The following section outlines a series of policy options intended to increase the capacity of rural institutions to manage natural resources. The purpose of these suggestions, based upon the information collected and reviewed during the ReMAPS study, is to stimulate discussion within the USAID/Senegal mission. The majority of the recommendations would require more detailed reflection, some additional studies to flush out programmatic

details, and the active contribution of mission staff familiar with USAID programmatic exigencies. Implemented individually without a coherent long-term strategy, few of these policy and programming options would have a long-term impact.

The are divided into two sections under the following rubrics:

1. National Land Tenure Policy Options: A series of policy options pertaining to tenure policy reforms on a national level that ought to be coordinated between the donor community and the Senegalese government;

2. USAID/Senegal Program Options: A series of policy options specific to areas of intervention appropriate to the USAID/Senegal mission;

National Land Tenure Policy Options

Senegal is faced with three broad categories of policy choices with regards to resource tenure. The Senegalese government may chose to:

1) Abolish the corpus of legislation related to the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* and let market forces and customary land allocation practices take their course;

2) Ameliorate through incremental changes the present corpus of laws and administrative practices to reinforce the capacity of local institutions and the state to manage jointly natural resources; and,

3) Refrain from interventions in the domain of environmental and land legislation and administrative practice and let stand the current status quo.

The ReMaps team recommends that the USAID/Senegal mission support actively the second option.

A. National Land Tenure Policy Recommendations

Recommendation 1. Maintain Present Land Laws though Promote Appropriate Incremental Modifications

Recommendation 2. Devolve Resource Management Functions as Part of a Co-Management Approach between the State and Local Collectivities

Recommendation 3. Increase Local-Level Rule-Making Capacity of the Rural Community Councils

Recommendation 4. Devise Joint Enforcement Mechanisms to Increase Local-Level Rule-Making Capacity

Recommendation 5. Implement on a Limited Basis a Rural Cadastre and Land Registration Process

Recommendation 6. Increase Representation of New Economic Groups and Social Categories on the Rural Community Councils

Recommendation 7. Simplify and Harmonize the Laws, Codes, Decrees and Administrative Circulares on Natural Resources

Recommendation 8. Increase Accessibility of Legal Corpus to Rural Populations

Recommendation 9. Test Application of the Proposed "*Arrêté Préfectoral Fixant les Conditions Minimales de Mise en Valeur des Terres du Domaine National*"

B. USAID/Senegal Mission Recommendation

Recommendation 1. Support World Bank "Plan d'Action Foncier" Initiative

Recommendation 2. Encourage Formation of the "Conseil Supérieur de l'Environnement et des Ressources Naturelles" (CONSERE) and the Placement of Land Tenure on its Agenda

Recommendation 3. Establish Pilot Program to Institute an *animateur communataire* Position at the Level of the Rural Community Council

Recommendation 4. Utilize ReMAPS Case Study Sites for Pilot *Animateur communataire* Project

Recommendation 5. Conduct Case Studies on the Institutional Dynamics of the Rural Community Councils Chosen for Project Interventions

Recommendation 6. Establish a Curriculum for Community Council Financial Management Training

Recommendation 7. Establish a Legal Education Training Program Associated with the Translation of Legal Texts on Environmental Issues into National Languages

Recommendation 8. Support Creation of a "Journal for Rural Collectivities"

Recommendation 9. Support Forestry Service Applied Research and Testing on "Decrees of Application" for the New Forest Code

Recommendation 10. Support Documentation Reproduction Costs for a Collection of Literature on Land Tenure and Natural Resources

Recommendation 11. Finance Annual Conferences on Local Collectivities and Natural Resource Management

I. THE CORPUS OF SENEGALESE LAWS ON NATURAL RESOURCE MANAGEMENT

A. Overview

Tenure is simply the term for the rights which individuals and institutions have in land and other resources. In recent years, there has been a growing realization that the nature and extent of these rights, and the confidence of holders that they will be honored, form an important part of the incentive structure of resource users. By framing those rights effectively, to provide secure expectations of continued access to resources, policy makers can increase incentives for resource users to take the long view, conserving and regenerating rather than depleting the resource base upon which they rely for their livelihoods. Alternatively, dysfunctional tenure rules and institutional arrangements can lead very directly to resource degradation.

The laws, regulations, and administrative edicts governing the use of natural resources in Senegal are numerous, complex, and the subject of considerable judicial and administrative debate. At both the village level and within administrative circles only the broad outlines of key laws are understood and respected, not because of lack of interest but because of the inaccessibility of the legislative corpus. The complexity of the legislation makes for difficult application of the texts. For this reason, this chapter reviews in considerable detail the broad characteristics of legislation pertaining to land and other natural resources.

This section summarizes the twin pillars of the national land laws of Senegal: The 1964 *Loi Relative au Domaine National* and the 1972 *Loi Relative aux Communautés Rurales*. The section reviews briefly the opportunities and constraints of other texts relating to rural environmental matters: the Forest Code, legislation pertaining to pastoralists, laws defining state expropriation for public utility, and a proposed decree to define the concept of "mise en valeur." The chapter concludes by briefly analyzing pending legislative proposals related to land tenure and natural resources. The Senegalese legislative arsenal is vast, and for this reason, this report only reviews the most salient features. Appendix V, "A Partial List of Environmental Legislation" gives an indication of the breadth of legislation. Further legal analysis may be consulated through the extensive bibliography which augments this report (See "Land Tenure and Natural Resource Management in Senegal," volume III).

B. The Legal Framework

From the turn of the century to the mid-1950s the French colonial government shaped the legal framework and laws of the

colony to support an export-oriented agriculture, based primarily on peanut production, and to bring the "civilizing" influence of the Napoleonic Code to France's overseas territories. Various legal texts were introduced at the turn of the century to try to introduce to the French West African colonies the concept of the "domain" of the state. A decree in 1904 stated that all "vacant and unowned land" (*terres texts et sans maîtres*) belonged to the state. This legislation provided the colonial government with considerable latitude to determine what constituted privately owned land and public lands. The "public domain" of the state was later modified by the *Loi no. 76-66 du 2 juillet 1976* to include off-shore waters, rivers, streams, lake and ocean shores, natural inland water points (lakes, ponds, swamps), all sub-surface lands, and air space.

Throughout the colonial period the administration attempted to promote the individualization of land holdings. The registration of customary land use rights ("immitriculation") was promoted on several occasions. Despite the efforts to register ownership of land and encourage privatization of land holdings, rural populations largely resisted these initiatives. As late as 1955 the colonial government tried to register "collective" rights to land, but this too failed. To this day, rural people in Senegal and other African countries express opposition to land titling programs.

During the socialist fervor of the independence period, the government of Prime Minister Mamadou Dia enacted the 1964 *Loi Relative au Domaine National*. The legislation introduced the new legal concept of "national domain." In effect, the state nationalized most of the land surface of the country, except for those lands that were privately owned and duly titled at the time of the passage of the law. The role of the state, as embodied in the concept of "national domain" that the state is to manage responsibly the land for the public good while granting "use rights" to those who employ the land for productive purposes.

1. *The "Loi relative au domaine national"*

In 1964 the Senegalese government promulgated the *Loi Relative au Domaine National* for two reasons: to standardize the land-allocation system of the country and to create an economic environment conducive to agricultural exports. Once again the state attempted to devise a unified tenure system. Contrary to aborted attempts in the late 1950s to codify the "customary" land tenure regimes of Senegal's different ethnic groups the 1964 law abolished traditional tenure regimes. In part, the Senegalese government rejected codifying customary tenure because of the complexities of recording constantly changing land-allocation norms. In contrast to much of the land legislation passed in other West African countries, the Senegalese innovation consisted of retroceding land-allocation prerogatives back to

democratically elected representatives of rural community council districts. In addition, the Senegalese government's justification for the 1964 law lay behind the government's perception of what consisted the best rural land-use practices. The government believed customary landholders to be employing exploitative land-use practices that constrained the export-oriented peanut economy.

The dream of the socialist government of Mamadou Dia was to create a more participatory and democratic land allocation system. The writers of the *Loi Relative au Domaine National* were convinced that the traditional forms of allocating land were inherently unjust. Landed elites, these reformers thought, were extracting an excessive surplus from the peasantry. Within the densely populated Peanut Basin, for instance, the nobility of the former Wolof and Serer states were demanding high rents to cultivate land while keeping large tracts of land out of production. The intention of the new land laws was to transfer control over land from these elites to the state which in turn would give democratically-elected rural representatives the powers to allocate land to those individuals and groups capable of fully developing (*mettre en valeur*) the resources.

The *Loi Relative au Domaine National* defines several land categories. These are: *Le Domaine de l'Etat* (3% of land mass); *le Domaine des Particuliers* (2% of total); and le *Domain National* (95% of total). The National Domaine is divided further into four classes: *zones urbaines, zones classées, zones des terroirs, and zones pionniers*. A corpus of laws and edicts regulates the use of each one of these territorial entities. For instance, the Forest Code specifies regulations for both the *zones classées* as well as the *zones des terroirs*. The *Code du Domaine de l'Etat* regulates the 3% land mass controlled exclusively by the state, a negligible but very important area because it borders commercially coveted lands along the sea fronts, rivers, and lakes.

The *Loi Relative au Domaine National* of June 17, 1964 and the *Loi Relative aux Communautés Rurales*, no. 72-25 of April 19, 1972 pertain primarily to the *zones du terroir* falling within the National Domain. This zone corresponds to all lands which were used for farming, rural settlements or pastoralism at the time of the passage of the *Loi Relative au Domaine National*. The state gives to the elected rural community council the responsibility of allocating use-rights to most lands within the *zones de terroir*. The remaining private land, constituting roughly 2% of the total national territory, was either registered during the colonial period or just at the time of the promulgation of the new land laws. This privately owned land may be sold, leased and/or used for collateral. Some of the more valuable lands near Dakar were obtained in this way by perspicacious individuals.

Land bordering oceans and rivers is controlled exclusively by the state. The *Loi 76-66 portant Code du Domaine de l'Etat* grants full control to the state of a band of land one hundred meters from the high tide mark, a band twenty-five meters wide along navigable rivers, and ten meters along non-navigable rivers, lakes, ponds, and permanent "mares" or lowland depressions. This law in effect gives the state enormous powers over some of the more fertile riverain lands in Senegal. Along the ocean front of the Petit Côte the government has established a lease-hold system managed by the "Service du Domaine."

2. *The "Loi relative aux Communautés Rurales"*

The 1972 *Loi Relative aux Communautés Rurales* and other implementing legislation explicitly promotes a local-level natural resource planning process. The 1972 law defines the institutional structure of the rural community councils (*communauté rurale*) and defines the attributes of the members (*conseils ruraux*). A rural council is composed of twenty to eighty villages. Thus, a rural council represents on average a population of 5,000 to 10,000 people. The geographical notion of "terroir" is introduced in the legislation. The rural community council is "constituted by a certain number of villages belonging to the same territory, by solidarity with each other as neighbors, possessing common interests and being capable of finding the proper resources for their own development." [2] Three quarters of the village representatives are elected to five year terms on political party slates whereas one quarter are chosen by the assembly of "cooperatives" found in the district. There are anywhere from 18 to 28 council members per council depending on the population of the district.

The 1972 law vests these 318 rural councils the responsibility for allocating land to individuals and groups residing in the administrative district "as a function of the beneficiaries to assure, either directly, or with the aid of their family, the development of their lands according to a program established by the council."[3] Thus, the community council can allocate land but only on the condition that the land is being used in an economically productive fashion (*mise en*

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[2]Loi no. 72-25 du 19 avril 1972 Rélative aux Communautés Rurales, Article Premier. "...constituée par un certain nombre de villages appartenant au même terroir, puis par une solidarité résultant notamment du voisinage, possédant des intérêt communs et capables le trouver les ressources nécessaires à leur développement."

[3]Article 3 of Décret no.l 72-1288 du 27 octobre, 1972 Rélatif aux conditions d'affectation et de désaffectation des terres comprises dans les communautés rurales.

valeur). The community council determines the minimal conditions for productive development (*mise en valeur*). Often conditions for deeming a tract of land mise en valeur is a function of the local development plans prepared by the council. If the rural community council deems a tract of land as not being used in a productive manner, the council can reallocated the land to other users.

However, land allocations, transfers of land from one farmer to another, and the dispossession of land must be approved by a quorum of the rural council. These surveyed and demarcated transfers are to be written down in a land register. This *livret foncier* is to indicate the name of the title holder, village of residence, and a map or plan of the land ceded by the community council. All land deliberations are to be posted at the headquarters of the rural community council. The register is to be updated after each transaction. In theory this mechanism would provide the necessary security to obtain bank credits. In practice, however, the registry has never become operational. Like many other land registry systems in Africa, it is expensive to maintain, the transaction costs associated with registry are high, and qualified surveyors are lacking.

Besides lands that were registered as private property at the time the 1964 law was passed, the state does not recognize private ownership of land or other natural resources. Land markets for resources falling in the *zones du terroir* are thus in theory illegal as is the sale or rent of all rural lands.[4] However, investments made on the land (eg. buildings, trees, other physical improvements) may be sold as part of the land transfer process sanctioned by the rural community council. The community council allocates land in the *zones du terroir* to individuals and groups, yet it may also take away use-rights if the land is not properly developed, or "mise en valeur." Considerable powers are held by the rural community council to decide how and which lands are to be allocated as a response to demographic or socio-economic changes in the local economies. This same decree states that the community council may "demand the general revision of the allocations in the territory in the case that the evolution of demographic and cultural conditions

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[4]This is stated clearly in the Décret no. 72-1288 of 27 October 1972 Relatif aux conditions d'affectation et de désaffectation des terres du domaine national comprises dans les communautés rurales. Article 3 reads, "Les terres affectées ne peuvent faire l'objet d'aucune transaction et notamment d'aucune vente ou contrat de louage."

merit it."[5] This provision in principal gives the council tremendous powers to alter land uses or to ban certain land use practices it deems detrimental to the public interest.

Much legal ambiguity surrounds the concept of "mise en valeur." Nowhere in the legislative texts is the term defined explicitly. The Décret no. 72-1288 du 27 octobre 1972 *Relative aux conditions d'affectation et de désaffectation des terres du domaine national comprises dans les communautés rurales* further articulates the conditions of land allocation. Lands may be retroceded back to the state if they are not developed according to conditions of *mise en valeur* as judged by the community councils. In an attempt to block the ambiguity that still remains, the decree no. 80-1051 of October 14, 1980 gives the *préfet* the authority to define, <u>if necessary</u>, the minimal conditions of *mise en valeur* as a function of the economic and ecological specificity of the district. The ReMAPS team found no evidence of *préfets* taking the difficult initiative to define *mise en valeur* for their prefectures.

The *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* also grants rural community councils the right to plan local development activities, employ as much as 75% of the rural tax for these development projects, and resolve land disputes. Several provisions give rural community councils the power to express resource use preferences. One provision stipulates that the "community council determines all rights of usage in the interior of its territory" and that the "rural council expresses its wishes on all regulatory measures that it judges useful to apply within its territory in order to obtain a judicious exploitation of resources and an effective protection of agrarian resources of all kinds..."[6] An amendment to the core legislation adds that "the rural council deliberates everything that is within the jurisdiction granted by the laws and notably... the fight against fires and forest fires; the regime and the modalities of access to water points of all types; the creation and the installation of livestock paths within the interior of the territory of the rural community; planning for the exploitation of all forest gathering products and wood cutting."[7]

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[5]Article 12 du décrêt no. 72-1288, "...demander la revision générale des affectations dans le terroir, dans le cas où l'évolution des conditions démographiques ou culturales l'exige."

[6]Decree 64-573, Article 7, Chapter III.

[7]Loi no. 80-14 du 3 juin 1980 abrogeant et remplacant certains articles de la loi no. 72-25 du 18 avril relative aux communautés ruraux, Article 24.

Several provisions in the law promote territorial management of natural resources. For instance, the state can create "*Conseils de Groupements Ruraux*" charged with the "management and exploitation...of natural resources of several territories."[8] Regional councils have been formed in the Delta area of northern Senegal to try to deal with a variety of land use conflicts associated with the construction of small-scale irrigated perimeters. An "Association Nationale des Présidents des Conseils Ruraux et d'Arrondissements de Conseils Départementaux et Régionaux", led by Aly Lo, the President of the Rural Community Council of Taiba-Ndiaye has been created under this legislative rubric in order to present to government the concerns of the presidents of community councils.

3. *The "Code Forestier"*

The Forest Code regulates the uses of forest resources on both state "reserves" as well as land categorized as "national domain." As will be discussed in greater detail below, the present Forest Code, based on 1965 legislation and subsequently modified in 1974, contradicts the spirit of the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales*. In part, this is due to the unique histories of each piece of legislation. The current *Code Forestier* is a relic of the colonial period, the product of laws enacted as far back as the early 1900s and revised substantially in 1935.[9] In contrast, land law and legislation pertaining to the community councils originated during the post-independence era of Président du Conseil Mamadou Dia, a socialist.

Many of the key precepts of the present Forest Code are based on the July 20th, 1900 *Décret relatif au régime forestier du Sénégal et ses dépendances*. One of central articles of this law justified state intervention in the management of forests -

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[8]Article 12, Loi Relative au Domaine National. "...gestion et l'exploitation de...ressources naturelles intéressant plusieurs terroirs."

[9]For a detailed discussion of the evolution of forestry code legislation in Senegal, see: Kent Elbow and Steve Lawry, "End of Tour Report, "Forestry Policy and Legislation," Report prepared for USAID Senegal Reforestation Project and the Direction of Soil Conservation and Reforestation, 1989 and 1990; Kent Elbow and Alain Rochegude, "A Layperson's Guide to the Forest Codes of Mali, Niger, and Senegal," Land Tenure Center, University of Wisconsin, May, 1990; and Mark Schoonmaker Freudenberger, <u>The Great Gum Gamble: A Planning Perspective on Environmental Change in Northern Senegal</u>, PhD. Dissertation, University of California at Los Angeles, 1992, pp. 186-238.

"the harvest of tanning and tinting barks, gums, resins, rubber, and latex will be done in a fashion so as not to destroy vegetative production." According to this early edict, any practice deemed detrimental to the forestry domain could be banned " if the practices or the abuse of the rights enumerated above compromise the wealth of the forestry domain."[10]

These provisions have been replicated in subsequent forest codes. The 1935 Forest Code was the most comprehensive effort to control the use of the colony's forests. The 1935 Forest Code represented the concern of the authorities for the rapidly degrading natural resources of the Peanut Basin. The code banned many standard sylvicultural practices long employed by rural populations. These interdictions have been replicated in subsequent revisions. The majority of economically valuable trees in Senegal are considered "protected species" subject to numerous interdictions against "felling, pulling up, or mutilation" unless authorization is granted by the forest service. For example, gum collectors often lop off thorny branches which hinder the approach of tappers to the tree. This is a practice still punishable by stiff fines and/or a one month to two year prison term. The Serer villagers managing the rônier (*Borassus aethiopum*) trees (as described in Case Study no. 3, "Fandène, Department of Thies") now find that most of their sustainable forest practices are illegal. Obtaining permission entails high transaction costs, e.g., the time and expense it takes to find a forest service officer to obtain a no-fee permit.

By the late 1920s it had become evident to the colonial administration that codes and edicts would not stop what foresters considered abusive sylvicultural practices. The many laws against felling and mutilating economically valuable tree species simply could not be enforced by a handful of forest service agents. The colonial administration adopted a radically new policy approach. Throughout the 1940s and 1950s, the colonial administration created state forest reserves (*Forêts Classées*) for trees they deemed of economic value. To create these forest reserves, the colonial administration expropriated approximately 20% of the colonial territory. Because colonial administrators perceived these expropriation lands to be "vacant and unowned," they felt justified in transferring control of these lands to the forestry service. Little was officially registered and titled as specified by colonial land laws.

The creation of forest reserves reflected a well defined policy to protect the colony's natural resources. The government

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[10]Gouverneur Général de l'Afrique de l'Ouest Occidentale Française, Colonie du Sénégal, Service de l'Agriculture et des Forêts, Réglementation forestière, (Saint-Louis: Imprimerie du Gouvernement, 1916), p. 4.

created forest reserves in a semi-circular pattern from Linguère south to Mbacké to halt the eastward expansion of peanut production. Forest reserves were also created along the Dakar-Bamako railroad. These reserves were to be a repository of firewood for steam-powered trains. Another group of forest reserves were delineated around Thies and designated as sources of firewood for expanding coastal cities. In 1953 the forestry service created the 260,400 hectare *Réserve Sylvo-Pastorale de Six Forages* in the northern Ferlo as an exclusive grazing reserve for pastoralists. Commercial groundnut cultivation was and is still banned in large parts of the Departments of Linguère and Podor.[11] The forestry service manages most of this pastoral reserve. By law the forestry service must grant "contracts to culture" to permit farming in these reserves. By the late 1950s, many of the original forest reserves in the Peanut Basin, such as the "*Forêt Classée de Mbegué* had been converted to the status of a "*reserve sylvo-pastorale*" for the exclusive use of pastoralists.

For the past five years, various revisions to the Forest Code have been proposed. The proposals share a common objective - to provide incentives to villagers to manage planted trees and forests. Until now, any tree planted by an individual belongs in theory to the state and permits must be obtained to trim or fell the species. Proposed legislation grants greater individual rights to trees. The latest version is discussed below in section D, "Future Directions in Land Law."

4. *Legislation on Pastoralism*

The corpus of recent Senegalese land law has remained rather silent on issues of importance to pastoralists such as the control of pastures and water points. During the colonial period, the administration was very concerned about the expansion of peanut cultivation onto the areas used by the Fulbe of eastern Senegal as dry season pastures. As the peanut cultivation zones advanced progressively eastward, numerous and often violent conflicts broke out between the long-term pastoralist residents of the area and the cultivators, primarily members of the Mouride Islamic sect. The establishment of the sylvo-pastoralist reserves was seen as a way to reduce conflicts between herders and cultivators. The creation of many of these reserves in the mid-1950s coincided with the discovery of the Maestrichian aquifer located in northern Senegal and the development of borehole drilling technologies permitting access to these 200-300 meter deep fossil waters.

Unfortunately, the creation of the sylvo-pastoralist reserves has not resolved conflicts between pastoralists and

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[11]Décret no. 8110 du 1 novembre 1953.

cultivators. The *Décret de 80-268 portant organisation des parcours et fixant les conditions d'utilisation des pâturages*[12] was an attempt by the government to establish grazing zones within the territory of the community councils. The legislation allows "*Commissions de conservation de pâturages*" to create pasture zones in which agricultural activities are prohibited. This "*classement*" may take place on lands which were traditionally used by the community for grazing. The law requires the "*Commissions de conservation de pâturages*" to prepare a dossier justifying the need for a pasture reserve. In principal this provision would give village communities considerable powers to designate grazing territories on their own accord. Unfortunately, these commissions primarily represent state technical personnel. Pastoralists constitute only two out of seven seats on the commission. Aside from this representation problem, the process of applying for authorization to create a pasture reserve is complicated and lengthy.

The decree also provides several other resource management mechanisms. The state is granted the power to close down any boreholes for maintenance purposes and/or for reasons of public health. More importantly, the state has the power to close boreholes in order to encourage regeneration of soil and vegetation (Article 22). This article reinforces the perception that water points are the domain of the state as spelled out in the Law 76-66 *Portant Code de Domaine de l'Etat*. The pastoralist decree also places the onus on farmers to protect their fields against incursions from livestock by building fences in designated pastoralist zones ("*zones d'élevage*"). The rural community councils and government representatives are both charged with creating and maintaining access paths to water points and grazing lands.

The pastoralist decree is another example of innovative legislation that could contribute to the sustainable management of natural resources. However, as with the land laws, there remains several mitigating issues: Do local communities know the various laws well enough to apply them to solve their own problems and disputes? Do local communities possess sufficient political power to ensure that their government representatives apply the laws correctly? The ReMAPS case studies in the sylvo-pastoral zone (eg. Case Study no. 1: "Mbane, Department of Dagana, Région de Saint-Louis and; Case Study no. 2, "Mbeuleukhé, Department of Linguère, Région de Louga") suggest that neither administrators nor pastoralist communities know of this legislation. Extension advisors in the Department of Linguère acknowledged a vague familiarity with pastoralist legislation in

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[12]Décret no. 80.268/MDR/DSPA de 10 mars 1980 Portant organisation des parcours du bétail et fixant les conditions d'utilisation des pâturages." Journal Officiel, 1980 p. 443.

general, but little of with the specifics.

C. The Constraints of Land Law

The legal corpus regulating the use of natural resources in the national domain is very complex and extensive. Numerous codes not reviewed here form a dense package of legislation and administrative edicts. In addition to the major laws reviewed above, environmental legislation consists of Environmental Code, a Water Code, A Mining Code, a Wildlife Protection Code, a Fisheries Code, an Investment Code and numerous other decrees and administrative circulares (See Appendix V, "A Partial List of Environmental Legislation."). Many of these regulations are devised by the ministries responsible for the management of a particular resource. Legal contradictions thus surface reflecting different ministerial policies towards natural resources.

Statutory law is generally a distant and abstract reference point for rural populations. Certain elements of the legal corpus are well known, however, when the administration chooses to apply provisions in a particular domain. For instance, most villagers interviewed by the ReMAPS team had a knew about the Forest Code and the intricacies of the *Loi Relative au Domaine National*. For the rural populations trying to use the texts to protect local interests, the task is exceedingly difficult. Legal texts are hard to locate, lawyers are expensive and unfamiliar with rural concerns, and the judicial appeal process is costly and time consuming. The sections below review some of the difficulties encountered in the application of major environmental laws.

1. *The Loi Relative aux Communautés Rurales and Natural Resource Management*

The legislative corpus in Senegal provides many opportunities for decentralized management of natural resources. However, the ideological intent of the legislation is often weakened by key provisions that give the administration extensive veto powers over local initiatives. Even though the rural community councils possess the authority to craft local rules regulating the use of natural resources, the administration (the *sous-préfets* and *préfets* of the Ministry of Interior) may in fact veto any of the council's decisions. As the provision states, "the deliberations of the community council cannot be executed until they are approved by the appropriate tutelage."[13] This

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[13]Loi no. 72-25 du 19 avril 1972 Relative aux Communautés Rurales, Article 24, "Les déliberations prises par le conseil rural ne sont exécutoires qu'après l'approbation de l'autorité de tutelle."

measure, repeated throughout the texts regulating the rural community council, may be construed as a "checks-and-balances" provision that precludes rural communities from passing legislation that could lead to the rapacious exploitation of natural resources. In practice, the provisions give the administration enormous powers to block local level initiatives deemed contrary to state interests. *Préfets* are known to have stymied initiatives by rural community councils seeking to protect the resources of districts against excessive exploitation by powerful non-resident agricultural interests. For instance, in the Department of Linguère the administration has blocked attempts by the Fulbe to create 200 hectare grazing reserves.[14]

The council may appeal the veto decisions as an "arbitrary exercise of power." However, councils rarely pursue an appeal because the process would be to legally complicated and time consuming. Appeals must first go through the *sous-préfet* (1 month delay legally permissible), then the *préfet* (2 months delay legally permissible) and then after this, a "jurisdictional" process may be launched. This later process is not spelled out clearly in the Law 72-25 *Loi Relative aux Communautés Rurales*. The decree no. 80-1051 of October 14, 1980 does stipulate that the decisions of the *sous-préfet*, *préfet*, and governor regarding the allocation of land can be appealed through the Supreme Court "*par la voie du recours pour excès de pouvoir* though it appears that this procedure requires first of all that the matter rise through the administrative hierarchy.

Other constraints of a more organizational and administrative nature are discussed below in Chapter IV, "Institutional Limitations of the Rural Community Councils."

2. *The Interministerial Circular on Pastoralism*

The ReMAPS team did not come across any evidence that the provisions of the Interministerial Circular on Pastoralism was being applied in the areas studied. During the ReMAPS case study in the Department of Linguère, neither villagers nor administrators were familiar with provisions allowing for the creation of "*Commissions de conservation des pâturages*." Legal education could play an important part in making an innovative piece of legislation work as it was designed. By law, the Fulbe of the Ferlo could set aside large expanses for grazing and thus counter the northward advance of the peanut front. But to make the law work, the Fulbe would have to mount a sustained legal campaign to convince government to apply the interministerial decree.

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[14]Christine Juul, "Problèmes fonciers et aménagement territorial en zone agro-pastorale: Le cas de l'arrondissement de Barkédji." Centre de Suivi Ecologique, 1992.

In addition, there is considerable overlap in ministerial functions stipulated by the interministerial decree on pastoralism and the *Loi Relative aux Communautés Rurales*. The legal mechanisms exist within the law for community councils to create pasture reserves, so one must question why another institutional mechanism must be created like the "*Commissions de conservation des pâturages*."

3. *Expropriation for Reasons of Public Utility*

The *Loi no. 76-67 Relative à l'expropriation pour cause d'utilité publique et aux autres opérations foncières d'utilité publique* of July 2, 1976 gives the state enormous powers to expropriate lands in the public interest. Eminent domain legislation is common in most countries. In each case, such laws introduce uncertainties into the land tenure regime as well as local level land management practices. As Article I of Senegalese law no. 76-67 defines the term: "...expropriation for the sake of public utility is a procedure in which the State can, in the interests of public utility and with condition that just compensation is paid beforehand, can oblige anyone to cede buildings or other property."[15] The legislation spells out very clearly the broad scope of the state.

The first five articles define the purposes whereby the state can expropriate land and property. The law delineates the conditions under which compensation should be paid. Justifiable reasons for state expropriation are the following:

- Public works;
- The installation, operation and implementation of all state services related to the functions of para-statal firms, companies and organizations serving priority public needs, representatives of diplomatic services, and housing for these services, societies, companies, offices, or organizations;
- Reforestation projects and soil and water conservation activities;
- Hydro-electrical projects;
- Urban planning activities;
- Implementation of development plans, commercial and agricultural projects, projects destined to *mise en valeur* lands allocated for housing, commerce, industry,

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[15]Loi no. 76-67 Relative à l'expropriation pour cause d'utilité publique et aux autres opérations foncières d'utilité publique de 2 juillet, 1976, Article I: "...l'expropriation pour cause d'utilité publique est la procédure par laquelle l'Etat peut, dans un but d'utilité publique et sous réserve d'une juste et préalable indemnité, contraindre toute personne à lui céder la propriété d'un immeuble ou d'un droit réel immobilier."

agriculture, livestock raising, or reforestation.

For villagers who loose land and feel that compensation is inadequate, the costs of appeal can be very high. For this reason, the broad scope of the law instills a degree of insecurity in the countryside. Territorial integrity of rural communities is threatened by this law. Abuses have occurred. For example, village lands have been lost to projects implemented in the "public interest." The ReMAPS teams document the environmental and ecological consequences of the removal of pastoralist populations from the lands now used by the Compagnie Sucrière du Sénégal near the Lac de Guiers (See Case Study no. 1, "Mbane, Department of Ross Béthio"). Populations along the planned path of the Canal du Cayor are also deeply concerned about the possible expropriation of ancestral lands. In the event that state does expropriate land for this canal, villagers are ready to justify their claims to compensation (See Case Study no.3, "Fandène, Department of Thies").

4. *The Forest Code and Its Implementation*

Despite the wide regulatory range of the Forest Code, the forestry service has historically been unable to manage the forest resources of Senegal. Many state forests have been "declassified" or converted over to field crop production. Even though the central intention of the 1935 Forest Code and subsequent versions has been to halt the expansion of peanut cultivation, between 1962 and 1980, roughly 29,000 hectares of the state forests of Déali and Boulel were turned over to the Mouride brotherhoods for peanut production.[16] The massive clearing of 45,000 hectares of the *Réserve sylvo-pastorale of Mbégué* (Khelkom) in April and May, 1991 was only another instance in the long history of Mouride advancement into state forest domains. Massive clearing of state forests has also taken place for charcoal production. The forest reserve of Bandia is no longer protected by the forestry service. As a result the forest reserve has become an "open-access" resource subject to heavy use of grasses cut by teams. These teams then sell the forage to Dakar markets. Villagers surrounding some parts of the forest have been forced to abandon livestock production; there is just not enough fodder for their livestock.[17] Case studies identify clearly the many political, economic and religious factors which

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[16]Oussouby Touré, "Développement pastoral et contraintes foncières dans la zone sahélienne du Sénégal," Centre de Suivie Ecologique, juin, 1991, p. 13.

[17]"Le Foncier et la Gestion des Ressources Naturelles: Le Village de Ndiorokh Ndoutane, Région de Thies." Case study conducted under the auspices of an LTC/ISE short course in July, 1992.

undermine sustainable exploitation of these reserves.[18]

The Forest Code bans a number of practices which upon closer inspection may have ecological merit. From as far back as the mid-1930s, French foresters began to recognize that they did not possess the technical knowledge needed to manage Sahelian forest ecosystems. Many of the assumptions about the biological dynamics of Sahelian forests were proved wrong because of biases foresters retained from temperate zone countries. Colonial and post-colonial research programs still have not developed a full repertoire of appropriate sylvicultural practices. Recently, however, new initiatives are developing which tap the sources of indigenous knowledge held by rural communities. But a lag still exists. The forestry service agent in the field continues to enforce a vaguely defined set of interdictions against the "abusive" forestry practices of rural populations. For instance, in some cases there insufficient scientific evidence to condemn unilaterally farmers and pastoralists for coppicing and trimming trees. Forest fires set at appropriate times may make sound ecological sense, something that has been long argued by some forest user groups and pastoralists.

The progressive and participatory intent of the corpus of Senegalese land laws clashes sharply with the present Forest Code. Foresters have long argued that rural communities are unable to manage the forest resources. This view clashes with evidence from other Sahelian countries and recent studies in Senegal. These studies indicate that rural populations are indeed willing and highly capable managers of forests. The ReMAPS case study in Fandène (See Case Study no. 3, "Fandène, Department of Thies) demonstrated the sophistication farmers use to manage the rônier tree (*Borassus aethiopum*). Neither the state nor rural communities alone can manage the forest domain on a sustainable basis. Hopefully the revised Forest Code will provide a mechanism for a new form of joint management of the forested resources of Senegal. Key provisions in this new code may allow individuals and groups to manage, under the supervision of the forestry service, natural forest formations upon the preparation of a forest management plan.[19]

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[18]Jesse Ribot, "L'Arbre Disputé," in Anne Bergeret and Jesse Ribot, L'Arbre nourricier en pays Sahélien (Paris: Editions de la Maison des Sciences de l'Homme, 1990), pp. 105-194; Jeans Copans, Les Marabouts de l'Arachide (Paris: L'Harmattan, 1988).

[19]For a more complete discussion, see Kent Elbow and Steve Lawry, "End of Tour Report, 'Forestry Policy and Legislation.'" Report prepared for Senegal Reforestation Project and Direction of Soil Conservation and Reforestation, September, 1990.

D. Future Directions in Land Law

The government of Senegal has recently enacted a number of legislative changes that portend well for decentralized management of natural resources. Significant modifications to the *Loi Relative aux Communautés Rurales* now give the rural council greater control over budgets, a request long argued for by the membership. Other legislative changes are currently in the pipeline. The passage of a new Forest Code is eminent. Discussions have been underway to clarify the definition of "*mise en valeur.*" These changes are significant -- they prompt "framework" legislation which could enable local communities to manage natural resources in conjunction with state institutions. However, these changes are not enough. There must be a wide range of accompanying measures, the subject of section IV, "Local Institutions Tenure and Natural Resource Management."

1. *The 1990 Modifications in the "Loi Relative aux communautés rurales"*

Just prior to the municipal and rural council elections of November 1990 the National Assembly passed several modifications to the 1972 *Loi Relative aux Communautés Rurales.*[20] The most significant change is that many of the budgetary functions of the *sous-préfet* have been devolved to the council president. As manager ("*ordonnateur*") of the council budget, the president is given the authority to prepare the budget, manage the revenue raised from local taxes, contract out services, and maintain the infrastructures of the community councils. The president of the council is to keep the financial records. Among other new measures, council memberships have been adjusted to reflect the growth in populations. These changes promise far reaching effects. As will be discussed in the chapters below, this transfer of authority over the budget could increase the legitimacy of the rural community council.

2. *The "Projet d'Arrêté préfectoral fixant les conditions minimales de mise en valeur des terres du domaine national"*

An interministerial working group led by the Ministry of Interior met during the first half of 1991 to consider modifications to the decree no. 72-1288 *Relatif aux conditions d'affectation et de désaffectation des terres du domain national.* The committee struggled for quite some time to define the term, "mise en valeur." By March, 1991 the committee developed a definition which it hoped would become the core of a proposed

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[20]Loi de mardi, 25 septembre 1990 Modifiant la loi no. 25 du 19 avril, 1972 Relative aux Communautés Rurales.

d'Arrêté Préfectoral fixant les conditions minimales de mise en valeur des terres du domaine national. In each department the *préfet* would determine the minimal conditions of *mise en valeur* in relation to the ecology and economy of the area. The commission defined the term in the following manner:

> An area is considered as "mise en valeur" from the moment when an investment has been made, with the intention or not of its integral exploitation, for the purposes of agricultural production, forestry, pastoralism, fishing, hunting; for protection or fallow by appropriate techniques.[21]

While this definition is a major advancement in both the conceptual as well as pragmatic definition of the term, one question remains: what role will the rural community councils have in determining "mise en valeur?" Abuses could occur if the administration were to set "minimal conditions" of *mise en valeur* so stringent that the poorest elements of the population could never meet them. Land could then be considered underused and thus allocated by the rural community council to individuals or groups with preferential access to capital or credit. Appropriate definitions should arise out of a long consultative process between rural groups, technicians, and the administration of each and every community council. This could be a very creative process and one which the donor agencies should support with appropriate financial assistance.

3. *Revisions in the Forest Code*

The most recent version of the proposed Forest Code (November, 1992) spells out many promising innovations. The revisions include the recognition of private rights to planted trees, the possibility that the forestry administration can cede management control of forests to "rural collectivities" upon the preparation of management plans; the obligation to manage privately owned trees on a sustainable basis and; the retroceding of some portion of funds collected from permits and fines from the "Fonds Forestier National" to "rural collectivities."

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[21]République du Sénégal, Ministère de l'Intérieur, Direction des Affaires Générales et de l'Administration Territoriale. "Compte rendu de la réunion du groupe de travail chargé d'exploiter les dispositions du décret 72-1288 Relatif aux conditions d' affectation et de désaffectation des terres du domaine national. "Une superficie est considérée comme mise en valeur à partir du moment où un investissement y a été consenti aux fins de son exploitation intégrée ou non, pour des activités de production agricole, forestières, pastorales, halieutiques, cynégétiques; de mise en défens ou une jachère améliorée par des techniques appropriées..."

Despite these promising innovations, no legal provision in the code explicitly allows for rural collectivities to work with the forestry service to design joint arrangements to protect forest resources. Enforcement of the Forest Code rests entirely in the hands of the forestry service. Villagers remarked to the ReMAPS team that this enforcement situation is a disincentive to forest conservation. This situation gives the impression that forests and pastures presently used as commons really belong to the state, not the local collectivity. Much work needs to be undertaken to build more cooperative relationships between the rural forest users and the forestry service. Cases of cooperative linkages do exist to guide this process. The ReMAPS team documented the fruitful relationship that now exists between the forestry service agent of Dahra (Department of Linguère) and the "Fédération de Lutte Contre les Feux de Brousse" of Yang Yang (See Case Study no. 2, Mbeuleukhé, Department of Linguère).

4. *Regionalization and Natural Resource Management*

The Senegalese government is currently considering methods to implement the "third phase" of the decentralization process. This entails the creation of regional elected assemblies and regional councils.[22] Only the broad outlines of the program are known at this time. National laws instituting the policy approach are being prepared, though details are still very vague. President Abdou Diouf's independence speech to the nation on April 7, 1992 defines the general precepts of regionalization.

> *En effet, pour être à même de jouer pleinement son rôle, la région dit savoir plus d'autonomie et de liberté dans son administration et dans la gestion de ses propres affaires.*
>
> *C'est pourquoi, je vais proposer son érection en collectivité territoriale dotée de la personnalité morale et de l'autonomie financière avec une Assemblée élue au suffrage universel direct.*
>
> *Une telle changement de statut émancipera la région de façon irréversible, pour en faire la clé de voûte du développement régional, dans l'unité nationale.*
>
> *[Un] Conseil sera chargé de l'Administration de la région, dans des domaines tels que l'éducation, la santé, la culture: il sera également chargé de la gestion de certains équipements collectifs.*

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[22]Little has been published on regionalization. For an semi-official discourse, see Jacques Mariel Nzouankeu. "Le Défi de la décentralisation." le Soleil (9 avril 1992): pp. 8-9.

Les problèmes locaux seront ainsi mieux pris en compte.[23]

The ReMAPS sponsored conference on "La Gestion des ressources naturelles par les collectivités locales" addressed the topic of regionalization and natural resource management.[24] Government representatives spelled out the broad outlines noted in President Diouf's speech but when little beyond these precepts. Reference was made to the process of regionalization in France and Italy as examples Senegal might follow. Several speakers stressed the point that the regions would have a large degree of financial autonomy to raise funds for development projects and the operation of social services. But questions were raised about the capacity of regions to raise sufficient funds to finance regional development and whether regional inequalities would be exacerbated. For example, out of the 32.5 billion CFA raised in direct taxes in 1990, Dakar accounts for 93% of all tax revenues. The region of Fatick only raises 52 million CFA, roughly 0.1% of the total tax revenue generated in Senegal.[25]

Many questions are currently being raised about the impact that a policy of regionalization might have on governance structures. Will "too much" regional autonomy exacerbate conflicts similar to those in the Casamance? Where will the government find the financial resources to support regional institutions? Will the powers conferred to regional authorities detract from the prerogatives of the rural community councils? Will the creation of regional assemblies and regional councils really devolve administrative powers or is regionalization simply another mechanism to extend the authority of the centralized state? What powers will the elected regional assemblies have to create and enforce rules governing the use of natural resources? Would the assemblies be able to institute forestry decrees adapted to the specific economic and ecological conditions of the

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[23]President Abdou Diouf, "Message du President Abdou Diouf à la Nation." 4 avril, 1992. le Soleil 7 avril, 1992. p. 10.

[24]See conference papers: Gorgui Alioune Diouf, "Analyse historique et comparative de la régionalisation" ; Babacar Mbaye, "Les Regions, les finances locales et la gestion des ressources naturelles," Abdou Malick Sow, "Role et place de la région dans la décentralisation et la gestion des ressources naturelles." Université de Saint-Louis, Séminaire sur la Gestion des Ressources Naturelles par les Collectivités Locales, 3-5 novembre 1992.

[25]Babacar Mbaye, "Les Régions, les finances locales et la gestion des ressources naturelles," Université de Saint-Louis, Seminaire sur la Gestion des Ressources Naturelles par les Collectivités Locales, 3-5 novembre, 1992. (Annexe I)

region? Who would define *mise en valeur* - the *préfets*, the regional assemblies, the rural community councils? These types of questions must be answered in the future and the responses promise to be part of a heated national debate.

E. Conclusions

The ReMAPS team concludes that the Senegalese legislative corpus is generally a highly innovative and flexible compilation of laws and implementing decrees that provide a legal framework for local communities to plan and implement community based natural resource management activities. The legislation encompassed in the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* is unique in West Africa. The legislation favors the establishment of "co-management" arrangements, a development orientation so popular throughout the Sahel at this time. The USAID/Senegal finds itself in an enviable situation -- the legal context exists for participatory and decentralized natural resource planning.[26]

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[26]For a concise analysis of the "gestion du terroir/aménagement du terroir villageoise" approach, see: Thomas M. Painter, "Approches pour une meilleure utilisation des ressources naturelles et agricoles en Afrique de l'Ouest Sahélienne: Analyse sociologique de l'approche Aménagement/Gestion des Terroirs Villageois et ses Implications pour les Organisations Non-Gouvernmentales." New York: CARE, Agricultural and Natural Resources Technical Report Series no. 3, 1991.

II. THE INTERFACE BETWEEN TRADITIONAL LAND TENURE AND SENEGALESE LAND LAW

A. Overview

The land tenure and resource management situation in Senegal is very complex due in part to the geographical diversity of the country. The types of land tenure issues that occur along the Senegal river, for example, are quite different than those found in the Peanut Basin which in turn are very different from those of the far southeastern corners of the country. For this reason, the ReMAPS study analyzed the land tenure and resource use context in six distinct agro-ecological zones. The selected case studies were chosen primarily on the basis of the previously known existence of innovative institutional arrangements to manage natural resources. Neither time nor resources permitted a more extensive coverage.

This section reviews briefly the complex interface between the statutory and "customary" land allocation processes in the major ecological zones of Senegal. Much more theoretical analysis and field research is certainly needed to deepen understanding of the rapidly changing tenure situation currently unfolding at the local level.

References are kept to a minimum in order to facilitate rapid reading, though the ReMAPS team owes much to the many researchers and consultants who have contributed highly original and pertinent ideas to the tenure debate. Even though a vast literature exists on the subject of tenure and natural resource management, much of it quickly becomes outdated. It is hoped that this very cursory summary will not do injustice to the realities of the terrain.

The major findings of each ReMAPS case study are incorporated into the following sections. A brief summary of each case study is provided at the end of each descriptive sub-section on the major agro-ecological zones of the country.

B. The Land Tenure Situation in Senegal by Agro-Ecological Zone

The review of the land tenure situation by agro-ecological zone is fraught with methodological difficulties because of the great diversity even within the broad zones identified in this study. It can be demonstrated that for each one of the agro-ecological zones chosen there are numerous sub-zones of considerable micro-ecological specificity. The ReMAPS case studies recognize this diversity and attempt to describe how the complexity of tenure and institutional systems are indeed closely linked to the patchwork of micro-ecologies found in any research site chosen. The team well recognizes that a summary of the

complex land tenure and institutional realities in each one of these zones cannot do justice to the true complexity of the local situations. It can only be hoped that the broad outlines sketched below come close to representing the realities known by specialists of the particular area.

1. *The Senegal River Valley: A Rapidly Evolving Land Tenure Situation*

The land tenure situation along the Senegal river valley is probably the most complex and potentially explosive case in the country. Debate about land tenure issues in this region tends to color all other discussions about tenure "hot spots." For this reason it is essential to monitor closely how the state and civil society are responding to the profound changes occurring in the regional economy of the Senegal river valley.

The Middle Valley and the shores of the Lac de Guiers are the locus of intense land conflicts. The crisis between Senegal and Mauritania, disputes between pastoralists and riverain farmers, and tensions between "outsiders" and local populations are linked to a large extent to the rapid changes occurring in the regional economy associated with the development of irrigated agriculture. The construction of the dams at Malantali and Diama have created conditions for the expansion of irrigated perimeters. The Senegalese state and major donors are extremely anxious to develop the irrigated agricultural sector not only as a means to promote food self-sufficiency, but also to repay the debts incurred by the construction of the two dams. Hence the government is seeking a variety of means to create incentives for investment in irrigated agriculture. This search to promote some form of agribusiness in the Delta and the Middle valley is contributing to the growing sense of land tenure insecurity among the rural populations.

A large part of the Senegal river valley was considered until July, 1986 a "zone pionnier" managed by the parastatal agency SAED. Reforms in agricultural policy resulted in the disengagement of the SAED from land allocation and the transfer of control over a large percentage of "zone pionnier" lands to the rural community councils.[27] During the past five years the rural community council leadership has been under tremendous pressure to allocate lands to a large number of outside interests.

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[27]The decree no. 87-720 of June 4, 1987 converted substantial parts of the "zones pionnier" in the Région de Saint-Louis to "zones de terroirs" and hence under the control of the rural community councils.

The Example of the Community Council of Ross-Bethio

The rural community council of Ross-Bethio provides an representative illustration of the tenure dynamics along the most contested parts of the Senegal river valley. In August, 1988 the government ceded 11,710 hectares of "zones pionniers" land to the rural community council. By December 22, 1989 the council had distributed much more land than was available, a total of 13,837 hectares. About 30% of the demands for land came from residents of Saint-Louis, Dakar, and Touba-M'Backe while the remaining 70% was not only from local residents but also refugees and immigrants claiming ties to the zone. The CERP found it impossible to delineate all of the allocated lands because of a distribution process has now become chaotic. At least 2,127 hectares of land have been allocated to two or more recipients. The *sous-préfet* has been obliged to halt all distribution of land until some type of land survey is conducted and viable registration system implemented. The repeated calls within government circles for a rural cadastre is largely a reflection of the need to bring order to land distribution.

The literature on the tenure situation in the Senegal river valley suggests that the indigenous populations fear that they may be unable to properly mettre en valeur the land for irrigation purposes, and hence that they may loose access to the resource to "outsiders" with greater access to capital and technical knowledge. Yet governmental policies increasingly suggest that land along the river must be made available to any "entrepreneurs" with the means to develop it in an economically efficient fashion. The landed elite of the Senegal river valley are rightly concerned that they will loose access to long-held lands.

The pastoralist Fulbe (Peul) are active players in the emerging competition over access to prime agricultural lands. Grazing lands in the Delta are rapidly disappearing. Large expanses of dry season grazing territories have already been converted to irrigated perimeters. The creation of the national park at Djoudj also removed a substantial portion of traditional grazing lands. In other parts of the valley, livestock paths to water points along the river are being progressively constricted by the expansion of gardens and rice fields. Tensions are rising not only between the pastoralists and those engaged in irrigated agriculture, but also among the Fulbe themselves. Many Fulbe have begun to practice irrigated agriculture and hence they have closed off access routes to water and grasslands as well.

Within this potentially explosive situation, new, though often contradictory, land-allocation norms are emerging; principles, rules, and regulations which reflect neither state policy nor "customary" perceptions. In informal discussion with governmental officials and rural community council leadership,

one often hears the suggestion that the prime agricultural lands closest to the river be reserved for the local inhabitants while more distant and less favorable lands be developed by the "outsiders" with greater access to capital and technology. Some staff members of the Cellule d'Après Barrages noted that while most land along the Senegal river is in the national domain and thus exploitable by anyone with adequate financial means, indigenous residents must be assured preferential access to prime lands closest to the river. This position reflects well the interests of the traditional landed elite who have historically held the excellent "waalo" lands, the borders of the Senegal river flooded annually.

The pastoralist Fulbe are actively involved in the negotiation of new land use rules and regulations. In the Ross-Béthio rural community council, they have lobbied the council for an allocation of over 100 hectares of land which will be turned into a pasture reserve. Along the eastern bank of the Lac de Guiers, representatives of the local Fulbe communities are negotiating with an American agribusiness scheme for the maintenance of access routes to the lake shore for livestock and the provision of veterinarian services. The increasingly well organized Fulbe are arguing in the community council that large land allotments should not be granted to agricultural development projects unless pastoralist interests are protected.

The development of new land allocation institutions takes several contradictory forms. A Monitrice Rurale in Ross-Béthio indicated that women are paying traditional land holders rent to obtain access to gardening land and collective fields. Several types of informal lease arrangements exist. The rental of land for women's gardens parallels a trend seen with greater frequency in other parts of Senegal. The women gardeners are in a difficult position. Many fear that a formal request to the rural community council for a land allocation may be rejected and this in turn would block any further attempts to acquire access to land.

The fluid land tenure situation along the Senegal river valley has spurred the phenomenal growth of rural associations.[28] The growing numbers of Senegalese non-governmental development organizations in the valley may reflect an attempt by the local inhabitants to attract the capital, technical knowledge, and infrastructures needed to develop agriculture, and at the same time, keep the land from being alienated to external interests. A

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[28]This situation is well documented by Christophe Nuttall, "Les Associations villageoises de développement dans la moyenne vallée du Fleuve Sénégal: Processus d'émergence, situation actuelle, et avenir dans l'après-barrages," Annales Géograpiques, no. 547, 1989: 302-321.

plethora of "associations villageoises" have built relations with donor organizations in Europe and North America. These associations generate considerable sums for village development activities. Funds are often invested in small-scale irrigated perimeters. Even though these small-scale irrigated agricultural schemes are often not profitable, the infrastructural investment proves that the land is *mise en valeur* and thus cannot be alienated to outsiders. Discussions with some members of these organizations indicate that there is a very clear strategy to develop the most suitable lands before they are acquired by outside investors.

Toucouleur and Wolof village associations are beginning to take active measures to protect the remaining forest resources of the valley. As the forest cover diminishes and the demand for charcoal rises, a market has emerged for tree species such as the gonakié (*Acacia nilotica*). Village youth associations have been formed in several instances to enforce a village ban on the sale of trees. Roving forest patrols of young men circulate throughout the bush to halt the entry of woodcutters, often Fulbe from Guinea who "bought" trees from transhumant Senegalese "dieri" Fulbe. These pastoralists use temporarily the territory of the Toucouleur villages for grazing. New common property management arrangements may be emerging out of these village led management attempts. However, the forestry service does not yet support these activities. Even though villages probably have the legal right to create their own forest reserves, such an initiative undermines the profitable relationship between the forestry service and powerful charcoal producing interests in the Senegal river valley.

The social make-up of the myriad of rural associations is not clearly known. The leadership of some organizations is dominated by the traditional landed Wolof and Toucouleur elite. Other groups are lead by casted members, historically unable to gain access to good agricultural lands. When the associations acquire land from the rural community councils, the organizations apply their own internally devised land allocation rules. Little is known about the precepts used. Some associations may attempt to divide land equitably among members while others may replicate historically unequal social relations.

Emigrants have been formed in both the cities of Senegal and overseas informal village development organizations. These associations send back to the villages significant sums of money which are used to operate irrigated agriculture. Such organizations weld considerable power in Dakar. When disputes rise over land, the decisions of the local administration are often over-ridden. As one *sous-préfet* noted to the mission, the "ressortissants" of Senegal valley villages are often well positioned at the ministerial level in Dakar and hence able to protect effectively the interests of the home village. Distant

and apparently isolated villages have much more power and influence over the *sous-préfet*, *préfet*, and governors than is often expected.

Within the complex context described above, the state has not remained inactive. The administration is attempting to bring order to the land allocation process through the creation of an improved land use planning system. The Plan Directeur du Rive Gauche is designed to clarify land use potentialities and development priorities. In a sense, the plans are defining what constitutes mise en valeur for the Senegal river valley. These plans are supposed to define the broad development priorities for the valley from which the rural community councils are to then devise local development and land use plans. This land use planning approach is filled with inherent contradictions. The master plan is a directive document designed by technocrats calling for submissive implementation by the community councils. Yet the ideological foundations of the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* promote a consensual "development from the bottom" orientation. An appropriate relationship between the institutions of civil society and those of the state has not yet been worked out.

The Cellule d'Après Barrage has emerged as one of the key state agencies determining the future development path for the Senegal river valley. The Cellule sponsored and supports actively the research efforts of the Institute of Development Anthropology. IDA recommends that the flood recessional agricultural system be retained through optimizing an artificial annual flood. The maintenance of the traditional flood recessional agricultural system may reinforce the control of the Toucouleur elite to both the labor force and land.

A new land tenure system may be emerging in the Senegal river valley, though it is too early to discern its precise characteristics. Disputes over land will continue, pitting local populations against "outsiders," lower class/cast members against higher class/cast interests, and pastoralists against sedentary peoples. The Senegalese government may find itself in a defensive position scrambling to quell the outbreaks of potentially violent disputes. Unless the government acquires sufficient financial resources to implement an appropriate land use planning process, it will not be able to adopt a pro-active stance on tenure issues.

The ReMAPS Case Study in Mbane: The Land Tenure Situation along the Lac de Guiers

The ReMAPS case study in Mbane (Case Study no. 1,"Mbane, Department of Dagana) illustrated many of the broad trends discussed above. Land shortages are characterized by the lack of flood recessional lands along the shores of the Lac de Guiers and

competition between livestock production and agriculture. Since the lake level no longer rises and falls in response to the flood level of the Senegal river, the range of different heights of fertile "waalo" lands are no longer available for cultivation. Roughly 70% of this land is estimated to be no longer available for flood recessional agriculture. The greatest loss to the zone is the depletion of the fisheries that once richly furnished the village with abundant catches. The lake stocks are now over-fished and the species composition has changed because of the transformation of the lake's water regime. Dams constructed at both ends of the lake in the 1950s created a year long fresh water supply. Brackish waters from the once free flowing Senegal river no longer flow up the lake.

Livestock production is threatened by disease, possibly the results of intoxication by the waste products generated by the nearby CSS sugar plantations. Women are no longer engaged in tree crop collection due to the decline in tree density caused by years of low rainfall and wood cutting. Hunting has disappeared following the extinction of the once rich populations of game. Out- migration is high as the younger population searches livelihood elsewhere. Those remaining have diversified their income generating portfolios. Wolof women now own small stores, a new phenomena in the local economy.

For the populations of Mbane, traditional livelihood activities no longer generate adequate returns. On the upland sandy soils of the "dieri," rainfall is not sufficient to permit cultivation. The Mbane residents have turned to irrigated rice cultivation and gardening for much of its income and subsistence. The "Section Villageoise" of the Agricultural Cooperative has taken on considerable land management and allocation powers. The GIE currently consists of 28 Groupements d'Intérêts Economiques that receive credit and manage all the operations of the perimeter. The "Section Villageoise" has taken on many of the land allocation practices normally reserved for the rural community council. As a result of the political pressure that women and Fulbe pastoralists place on the rural community councils, both groups have received land at the perimeter. Contrary to common perceptions, irrigated agriculture has opened up new possibilities for individuals long denied access to floodplain irrigated lands.[29]

The "Section Villageoise" has worked closely with other local institutions and individuals (village chief, imam, vice-

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[29]Similar conclusions were reached in the Land Tenure Center studies in Bakel. See Peter Bloch, "The Dynamics of Land Tenure on the Bakel Small Irrigated Perimeters: Final Report on the Land Tenure Center Research Program." Land Tenure Center, November, 1989.

president of the community council) to try to resolve locally the latent conflict pitting agriculturalists against pastoralists. Considerable efforts have been made to negotiate the maintenance of 100 - 130 meter wide cattle tracks leading from the pastures of the "dieri" towards the lake shores. The construction of these paths are essential if livestock is to be kept out of irrigated and flood recessional fields. Despite these initiatives, the pastoralist livelihood system is severely threatened by the on-going drought and decline in the quality of pastures. Long-distance transhumance towards the south is necessary, though further south the Fulbe are confronting hostile resident populations anxious to protect their pastures from intrusions by northerners (See Case Study 2, "Mbeuleukhé, Department of Linguère).

2. *The Sylvo-Pastoral Zone: The Emerging Tenure Crisis*

The tenure context in the sylvo-pastoralist zone of northern Senegal represents a situation in which the transhumant pastoralist populations of Senegal north of The Gambia border and south of the Senegal river are gradually being compressed into the increasingly confined Ferlo. While the resident populations of the sylvo-pastoral zone fear the invasion of livestock from the north, they also confront a compression of grazing lands due to the migration of Mouride agricultural populations from the south. This reduces the amount of available grazing lands on the southern fringes of the Ferlo.

The southeastern reaches of the Department of Linguère is presently the locus of an intense, highly chaotic and conflictual competition over access to water points and pastures. The situation is explosive. Fulbe from the Lac de Guiers area are migrating southward towards the better grasslands of the Department of Linguère. Known despairingly as "egge-egge" by the resident Fulbe, measures are being taken by the resident populations to exclude the newcomers from the region. At the same time, Mouride farmers fleeing impoverished soils in the Peanut Basin are moving northwards into the arrondissement of Barkedji. Lands used by the resident Fulbe for grazing are being converted into fields by the Mouride and thus further limiting the availability of grasslands.

The literature on the history of pastoralism in northern Senegal is rich and varied and thus will not be reviewed extensively here.[30] The compression of the Fulbe into the grasslands of the Ferlo renders them increasingly vulnerable to climatic fluctuations occurring in a single ecological zone. The

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[30]One of the best succinct summaries is by Oussouby Touré, "Les Sociétés peul du Ferlo: Continuité, changements, menaces." Centre de Suivi Ecologique, 1990.

reduction in livestock mobility and the possibility of rapid transhumance to other parts of the country in the search of better pastures during years of drought threatens the future of pastoralism. Growing risks are similarly incurred by the pastoralists as dependency on the 200-300 meter deep boreholes and motorized pumps increases, most of which were constructed in the mid-1950s. The motorized pumps are difficult to maintain and frequently break down for extended periods. To compound the problem of borehole management, many of the older wells are experiencing hydrological problems. Either the wells run dry, which necessitates digging a new one, or in some cases the water has become overly salty. During the time that the well or pump is inoperable, the Fulbe and their livestock must flee to neighboring boreholes. Livestock losses are often incurred during these periods of crisis. Suddenly the carrying capacity is over extended and forage runs out.

Tenure and Opportunistic Grazing Strategies

In the face of the climatic uncertainties and difficulties of water provision, the Fulbe have developed an opportunistic grazing strategy. Small pastoralist clans retain considerable mobility within the Ferlo as they move their livestock from one borehole to another in search of suitable forage and sufficient water. Known popularly as "egge-egge," many seem to come from the areas bordering the Senegal river. But as the ReMAPS team found during its case study in Mbeuleukhé (See Case Study 2, "Mbeuleukhé), long-term Fulbe residents of the Jolof become nomadic "egge-egge" themselves when no grass is available following catastrophically poor rains. The Fulbe are now accustomed to rapid escape from pockets of scarce forage or the breakdown of boreholes. What is a survival strategy for the Fulbe undermines all measures planned by technicians to design controlled grazing schemes. Opportunistic grazing strategies may indeed by the best survival options for the Fulbe.[31]

This risk aversion strategy is diametrically opposed to the current pastoralist development plans of the government and donors. The Senegalese government is encouraging a policy of "*l'aménagement de l'aire de desserte du forage.*" This is a policy orientation taken to "polarize" a restricted and controlled number of pastoralists and their livestock around a single borehole and to devolve resource management powers from the state to the local populations. Experiments are currently underway to transfer the control of boreholes to Fulbe inhabiting the

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[31]This argument is best articulated by the Projet Sénégalo-Allemand following its 15 year experience in the Ferlo. Mission Foresterie Allemande. "Le Pâturage Contrôle: Un Système d'exploitation sylvo-pastoral comme modèle pour la sauvegarde des ressources naturelles." Saint-Louis, mai 1991.

territory serviced by a borehole (a 5-15 km radius around each water point). This new strategy is a marked departure from the previous government policy of promoting a "stratified" pastoralist economy in which young cattle are raised in the north but fattened in the south before being sold to the urban market.

By encouraging the Fulbe to settle around a single borehole, the planners hope to build a sense of pastoralist attachment to a specific locality. In theory, this would facilitate local level initiatives to plan for the conservation and regeneration of natural resources falling within the territory serviced by the borehole. The hydrological service of the Ministry of Rural Development has already turned over limited management prerogatives over to borehole management committees. These committees are viewed as a potential institutional foundation for the growth of a resource management unit. In the southern Ferlo near Tambacounda, the former PEDESO project created Groupements d'Intérêt Economique charged with the responsibilities of managing boreholes and devising various rules regarding grasslands use. This innovative project promised much, but the subsequent PICOGERNA project has not apparently followed up with the initial orientations.

Much experience has been gained in other parts of Africa in devolving water control to pastoralist organizations. From this experience, one may expect numerous organizational and distributional problems to surface. The polarization of a particular group of pastoralists around a single borehole will most likely lead to a reduction in the mobility of livestock raisers. In theory this should facilitate the development of better land use practices, yet the reality is that pastoralist populations are still highly vulnerable to disasters such as a prolonged breakdown of pumps, forest fires that wipe out the pastures, infestations of disease-bearing vectors, or very localized droughts. Some type of institutional mechanism needs to be created to permit pastoralist mobility during times of crisis.

It is possible that within each of the *aire de dessert du forage* the Fulbe nobility and other owners of large livestock herds will exclude lower class members of the community from exploiting the grasslands. Since little is known either about herd ownership patterns, it is difficult to speculate where the locus of decision making is really found in pastoralist Fulbe societies. Such interest groups may not have the institutional power to exclude successfully other Fulbe groups. But when exclusionary tendencies of powerful local groups and development projects come together, strange permutations can emerge as the Projet Sénégalo Allemand du Zone Nord discovered.

The *Projet Sénégalo-Allemand du Zone Nord* fenced off roughly 14,000 hectares of grasslands around the borehole of Vendou

Tiengoli in the early 1980s and divided the area into plots grazed by a pre-determined number of livestock. Recently conducted sociological studies showed that the Fulbe nobility of Vendou Tiengoli had excluded access by lower class members of the community to the grasslands of the fenced-in plots.[32] Despite efforts by the project to ensure a representative participation of various Fulbe socio-economic groups in the ranching scheme, the elite had successfully captured the proffered project benefits. The ranching scheme affected the transhumance patterns of the beneficiaries. For over a decade pastoralist households had become accustomed to grazing their livestock in these plots provided with piped-in water. Outsiders from neighboring boreholes were excluded from using the water and grasses of the fenced-in zone. Resentments were born by the outsiders from this unprecedented move. For several weeks during the dry season of 1990, the borehole at Vendou Tiengoli broke down, the first time in decades. The Vendou Tiengoli Fulbe tried to move quickly their livestock to neighboring boreholes. Many cattle died in the escape from the perimeters as few were sufficiently hardened to the rigors of long-distance walking acquired by years of transhumance grazing. Neighboring Fulbe sought revenge for the years of exclusionary practices of their neighbors and charged extortionist water rates for the use of their boreholes.

The ReMAPS case study in the Arrondissement of Yang Yang (Case Study no. 2: "Mbeuleukhé, Department of Linguère") illustrated the complex struggle occurring within borehole management committees over the use of water in this semi-arid environment. Resident Fulbe and Wolof populations in the case study area employ a variety of means to try to protect their grasslands against excessive exploitation by non-resident transhumant Fulbe groups originating from the Senegal river valley. Through trying to limit access of these "egge egge" populations to boreholes, the residents hope to minimize the use of the dwindling supplies of grasslands found in a year of severe drought. These actions are judged illegal by the administration that holds that water and pastures are public resources open to access by all. The community council is ineffectual in resolving the conflict.

The Fulbe may resist the strategy proposed by the designers to develop the "*aire de desserte du forage.*" The Fulbe of the Ferlo are well known to have only selectively adopted components of projects which they deem useful. The growing political and economic power of the Fulbe will have an influence on pastoralist development policies. Pastoralist associations are gaining political representation. Some of these informal associations have turned into Groupements d'Intérêts Economiques and have qualified for credits from the Caisse de Credit Agricole. The

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[32]Mission Forestier Allemand, ibid.

members apparently have some of the highest reimbursement rates in the country. Literacy programs in Pulaar are flourishing and thus facilitate communications within an ethnic community often split in the past by clan rivalries. Innovative institutional arrangements are emerging to deal with the problems of the zone.

The ReMAPS Case Study of Mbeuleukhé: Innovative Institutional Arrangements: The Struggle to Protect the Grasslands of the Sylvo-Pastoral Zone

The ReMAPS case study chose the village of Mbeuleukhé in order to study the tenure issues arising in an area that represents the interface between sedentary agriculture and pastoralism. The team found itself in the midst of a severe social and ecological crisis. Sparse rains during the rainy season of 1992 had resulted not only in a total failure in field crop cultivation, but also in a negligent growth of grasses for livestock fodder. Most of the pastoralist Fulbe populations had migrated out of the zone by mid-November. Vast herds of livestock were congregating further south in the Department of Linguère. The population of Mbeuleukhé was rapidly declining. Men had long ago fled to the south in the search for agricultural employment and women and children were preparing to move out of the village in order to live with more prosperous relatives. Famine stalked the zone.

The agricultural economy of the area has evolved dramatically since the advent of the drought in the early 1970s. Prior to the drought, the agricultural economy was based upon the production of variety of crops. As the historical matrix shows, agriculture is no longer a viable endeavor (Figure 2: Historical Matrix of Mbeuleukhé Agricultural Economy). Livestock production is one of the few commercial activities remaining in the zone. Labor migration is the most important source of revenue. Land tenure conflicts are non-existent because of the low value of land. Agriculture is simply not viable in this zone.

The importance of livestock production in this marginal agricultural area obliged the ReMAPS team to look primarily at the history of the *Féderation de Lutte Contre les Feux de Brousse*. This inter-village organization is an innovative village level association involved in the protection of forest and grassland resources against bush fires. The rural institution has achieved considerable success in combatting bush fires, a constant threat to pastures and livestock production in agro-pastoral zones. The membership has devised several creative ways to combat forest fires that reflect a positive and innovative co-management relationship between the state and a rural organization.

Figure 2: Historical Matrix of Mbeuleukhé Agricultural Economy

18-25 novembre 1992

Interview with Old Men of Village of Mbeuleukhé

Revenus/ Periode	Ara-chide	Mil	Niébe	Manioc	Béref	Verek	Elevage	Travail Saison-nier	Graines de Soump	Huile de Soump	Petit Com-merce
Avant la Sécheresse de 1970	●●●●●● ●●●●	●●●	●●●	●●	●●●	●●●●	●●●	●●●●●●● ●●			
Présent	●●				●●		●●●●	●●●●●●● ●●●●●	●●●	●●	●●
Avenir dans les Conditions Actuelles							●●●	●●●●●●● ●●●	●●		

Explanation: The informants were asked to place piles of beans indicating the major sources of revenue during major historical periods. The informants chose the periods "before the drought," "the present," and the "future" if current conditions prevail. The matrix shows clearly how villagers have abandoned agriculture in favor of other income generation activities such as livestock production and migration.

The origins of the *Fédération de Lutte Contre les Feux de Brousse* can be traced to a vast bush fire that swept through the Arrondissement of Yang-Yang in mid-November, 1987. Someplace to the east of the arrondissement a bush fire was ignited around November 11th and, pushed quickly west by the dry and hot Harmattan winds, it struck the arrondissement. The fire fighting brigades, small teams of hired forest fighters accompanying Mercedes UNIMOG tank trucks, succeeded in putting out the fire. Unfortunately, by November 15 hot embers once again ignited the tinder dry bush and the fire continued on its destructive eastward path. The fire engulfed entire villages in its path and left death and destruction in its wake.

Forestry service reports from the period recount how the fire killed goats and sheep in the village of Boukinballo. But this was small damage compared to the destruction of Negué Wolof (near the rural community council headquarters at Kamb). Here not only were livestock destroyed and peanut harvests burned, but a hut filled with old people and children caught fire. Four women, a man, and two boys were burnt to death and later another man died in a hospital.

When the fire was finally arrested, a vast region of at least 32,000 hectares was burnt. Eleven forest fire brigades were called into the department to fight the fire. Little was left but a vast plain of black soot and burnt trees. With no grass left for livestock, the area was left deserted and desolated.

In the wake of the fire the *sous-préfecture* of Dahra and the forestry service convoked a meeting of all the community council representatives, village chiefs, and other dignitaries to discuss ways to control forest fires. At this meeting the administration encouraged each village in the arrondissement to create forest fire committees to not only fight fires when they brake out but also to clear the existing network of firebreaks and make new ones where necessary.

The *Fédération de Lutte Contre les Feux de Brousse* was formed in 1987 by an energetic Wolof resident of Yang-Yang, to coordinate the activities of the various village level committees. This committee has devised a number of innovative ways to combat the ever present threat of bush fires.

The federation took the innovative step of creating a fund to purchase diesel fuel for the forestry service UNIMOG fire fighting trucks stationed in at the community council headquarters at Mbeuleukhé. The membership noted that the forestry service fire-fighting brigades lacked sufficient supplies of diesel fuel for the fire engines. When fires broke out it could often take the brigades as long as a day or two to

acquire and transport the fuel to Mbeuleukhé. The Wolof and Fulbe leadership of the federation thus decided to create a fund from membership contributions to purchase and stock diesel fuel in Yang-Yang. When a fire breaks out in the arrondissement, the forestry service brigade in Mbeuleukhé is asked to come to Yang-Yang to get fuel and then travel out to the fire.

The federation currently consists of 147 paying members. During each month of the nine month dry season, the members pay a monthly fee of 150 CFA per man and 100 CFA per woman. This sum is used to purchase four hundred liters of diesel fuel which is stocked in Yang-Yang under the watchful eyes of the federation committee. The funds are not only used to fuel the forestry service fire fighting trucks, but also to fuel graders used to help clear the firebreaks. Recently the federation has generated surplus funds as a result of few fires (due in part to little forage following the disastrous rains of the summer of 1992, but also to the success of the program) and invested these sums in income generating activities. In late November 1992 the federation had at its disposal a herd of 16 sheep and goats and a fund of 115,215 CFA. The livestock is incorporated into the herd of one of the members and the funds are held by the treasurer.

Each seventh day of the month the federation meets to discuss policy and to plan activities. One of the issues following the poor rainy season of 1992 in which no grass grew in the arrondissement of Yang-Yang is whether fees should be collected when it is clear that fires will not break out due to the lack of litter. As a consequence of the massive migration of Fulbe out of the arrondissement to head south to find better forage for their livestock, the federation has not met recently. While the activities of the federation have lapsed this year, it is expected that the federation will come together again following the return of better rains and more forage.

The federation meets to plan work days to clear firebreaks in different parts of the arrondissement. The membership is called to help clear the firebreaks, a task which often takes several days of concerted action. The federation has not only cleared pre-existing firebreaks, constructed during the late colonial period and early years of independence, but it has also cut new firebreaks in order to create a better protective grid. Hoes and machetes are used to dig up the grasses along a four to five meter swath and then rakes are used to clean off the paths.

The construction of firebreaks has been effective from the perspective of both the federation membership and the administration. Only two small fires have broken out in the zone in the past four years despite the return of relatively good rains (until the rainy season of 1992) and thus an abundant pasture. The leadership of the federation is convinced of the

effectiveness of the firebreaks as demonstrated by the successful halting of a fire a couple of years ago. The villages of Mbeuleukhé and Yang-Yang had embarked on the joint clearing of a six kilometer long firebreak between the two villages. A fire broke out around an illegal charcoal makers furnace and swept east towards Yang-Yang. Despite the efforts of the forest brigade and villagers to stop the fire, it was only the firebreak that halted the conflagration. Villagers from around the area came to the firebreak to admire its effectiveness. The villagers quickly caught the charcoal maker and turned him over to the forestry service. The forestry service fined him 400,000 CFA though to this day the sum remains largely uncollected. The effectiveness of the fire break and the prompt response of the forestry service in fining the charcoal maker has encouraged villagers to invest in the construction of more firebreaks and the continued payment of monthly dues.

The federation has gone through some difficult periods of institutional growth. Initially the organization was founded by a dynamic Wolof of Yang-Yang. For several years he led with considerable commitment the growth of the federation. He often went to Linguère and even to the ministries in Dakar to obtain fire-fighting tools and other support. For the first couple of years all the financial and management activities were centered in the dynamic founder. Questions gradually began to be raised about the financial management of the fuel fund which had grown to over 300,000 CFA. Amidst allegations of financial impropriety, the membership decided to create a formal governing board and to elect officers. The founder of the federation was voted out of the presidency and made vice-president while a Fulbe of a hamlet neighboring Yang-Yang was selected as president. The literate Wolof village chief of Yang-Yang was chosen as secretary while a Fulbe was chosen as the treasurer. The federation is now officially registered with the government and its activities are followed with considerable interest by the administration.

Since its inception the federation has gained considerable notoriety that has translated into some material support. The PRONAT project (a "*Projet Autonome*" that receives not only financial support from donors but also from the "*Fonds Forestier*") has contributed small amounts of fire-fighting equipment such as hard hats, boots, clothing, pumps, rakes, shovels, coup-coups, and gloves. Yet the support has not been sustained enough to replace the small amounts of heavily used equipment.

Despite the successes the federation has thus far achieved, it is a rather ephemeral organization. It coalesces during a time of need but becomes dormant at other periods. As the drought year of 1992 has demonstrated, when there are no threats of forest fires in the zone, the institution largely disappears as its membership flees the Jolof to find pasture for its

livestock elsewhere. It remains to be seen how its surplus funds will be managed during the drought year and whether the organization will reconstruct itself easily following the return of the rains. This institutional flexibility is perhaps the strength of the federation. It responds to a specific need for collaborative action of its membership, yet it is not encumbered by excessive demands from other organizational prerequisites. If the federation were to take on other resource management activities, the institutional capacity of the organization might be overly taxed and one could see its collapse.

The case of the *Fédération de Lutte Contre les Feux de Brousse* does not reflect the growing political power of the Fulbe. During the dry season of 1988 the Fulbe succeeded in their long term goal of forcing the Senegalese government to expel the 20,000 Mauritanian camels that had long grazed in the Ferlo. The exclusion of the foreign livestock diminished grazing pressures for the Fulbe and represented an attempt to control land use. This type of political response to an ecological constraint will undoubtedly be replicated in other domains in the near future.

3. *The Niayes: The Emergence of Peri-Urban Land Markets*

The coastal Niayes is a unique ecological zone parallelling the Atlantic ocean from the vicinity of the Senegal river south to the environs of Mbour. The zone north of Dakar is especially well adapted for horticulture, fruit tree production, and semi-intensive animal husbandry because of the high water table, the cooling effects of the coastal breezes, and the proximity to the urban market of Dakar. This zone has long been the locus of numerous public and private development interventions. The government of Senegal is encouraging agribusiness investments in dairy production and export oriented horticulture. The Niayes currently produces a large percentage of the fresh vegetables, fruits, and flowers for the Dakar market.

The unique ecosystem of the Niayes has undergone profound ecological and social transformations since the turn of the century.[33] Until the 1930s, the lowland depressions of the Niayes from Saint-Louis to Dakar were covered by a dense mantel of trees characteristic of the Sudano-Guinean forest. Following the rapid expansion of the colonial peanut economy in the late 19th century, the Niayes became a readily available source of firewood and timber for the growing urban centers of Saint-Louis, Louga and Kebemer. The rônier palms (*Borassus aethiopum*) were the

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[33]Paul Pélissier, Les Paysans du Sénégal, (Saint-Yrieix: Imprimerie Fabrègue, 1966), pp. 62-63, 172-1974; Cheikh Ba, Les Peuls du Sénégal, (Dakar: Les Nouvelles Editions Africaines, 1986), pp. 58, 106, 168, 246.

first species to suffer excessive exploitation. By the turn of the century, the colonial administration was taking conservation measures by creating state forest reserves around the densest populations of rôniers. These efforts failed to stop the rapid transformation of the ecosystem.

The unique forest cover was originally well preserved since the Niayes were sparsely populated until the early decades of the 20th century. The zone was largely the refuge of pastoralist Fulbe escaping the exactions of the Wolof of the pre-colonial Cayor and Jolof provinces. The abundant pools of open water and shallow wells ("*séanes*") scattered along the tree covered dunes encouraged seasonal use of the Niayes. Yet the existence of trypanosomiases carrying flies discouraged the permanent settlement of Fulbe. By the mid-1930s the Fulbe began to settle permanently in the vicinity of the best watered depressions nearest the ocean. Here they combined horticultural production with livestock raising. The Wolof of the Cayor tended to occupy the eastern sand dunes of the coastal belt where they practiced field crop cultivation. To this day the Niayes is characterized as one of the more intensively managed mixed farming zones of Senegal.

The destruction of the Sudano-Guinean forest cover continued unabated as the economic function of the zone evolved towards horticulture and livestock production. The drought years of the late 1960s and early 1970s further decimated the tree cover. Sand dunes began to encroach on to the "cuvettes" along the ocean. Massive reforestation programs were launched following the drought in a desperate effort to halt the catastrophe. Most of the thin band between the ocean and the gardening zones is now a state forest reserve though projects are now considering ways to increase the participation of local populations in tree planting activities.

Land Tenure Situation in the Niayes

Very little research has been conducted on the land tenure situation in the Niayes. Yet paradoxically, this is probably one of the most coveted regions of Senegal today. The tenure situation is complex and location specific. Land markets and land speculation appears to be widespread in the areas nearest to Dakar. Elsewhere horticultural lands are widely loaned and rented. The state has expropriated land from the original Fulbe and Wolof inhabitants for various agribusiness ventures. But the contours of the original land occupation patterns remain very much in force today.[34]

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[34]Babacar Sall, "Relations interethniques, coopératives et enjeux politico-économiques en milieu maraîcher Sénégalais." Genève-Afrique 25 no. 1 (1987), pp. 30-34.

The Lowland "Djouki" Lands

In the early 1930s the Fulbe obtained access to the best gardening lands nearest the ocean due to their historical presence in the zone. Even though the Fulbe represent only about 20% of the population of such rural community councils as Thiepp (Department of Kebemer), they possess firm rights of access to the best gardening lands - the "djouki" lowlands between the sand dunes closest to the ocean. These prime lands are cultivated intensely by the Fulbe households themselves. Little land is apparently rented. The small and intensively cultivated plots are worked primarily by women who use the vegetables for household consumption and some marketing.

In the cases where land is loaned by the Fulbe proprietors, various share-cropping arrangements are apparent. The most frequent arrangement seems to be that of an owner providing for the season all the necessary inputs, food, and housing to the share-cropper. The land owner discharges responsibility for management to the workers known as "sourga." The "sourga" can hire day laborers and sell the harvest, yet the owner receives 50% of the profits. Over time, these "sourga" often acquire more permanent rights to the land and better contractual terms. As in many land allocation systems of the Sahel, the integration of the "sourga" into the household through friendship and marriage eventually results in more secure tenure.

It appears that the "douki" lands are the best managed in the Niayes. The Fulbe heavily fertilize the plots with manure. The fields are well protected from the entry of livestock by windbreaks and live fences. Considerable investments are made in cement lined wells and manual pumps. It seems that the Fulbe search actively for ways to make permanent investments in the gardens in order to assure possession of the land.

The Intermediary "Khour" Lands

In contrast, the second form of land allocation represents a markedly different land tenure situation. The less desirable lands are frequently leased by the Fulbe proprietors. Contractual terms vary considerably, but it seems that land leases are apparently for short periods only, usually no more than one year at time. The renter pays an annual fee in return for full management autonomy. In one case, it was reported that annual rentals are 20,000 CFA per plot. Hired daily labor is often engaged by the lessor. In these larger plots, up to 20 or 30 people may be hired to cultivate and draw water. Seasonal migrant labor tends to come from the same home villages in the interior of Senegal. Wage rates for this seasonal and landless labor force fluctuate in relation to gross sales of vegetables.

Proprietors apparently do not allow borrowers to make

investments in the land. Fulbe proprietors rarely allow borrowers to return to the same plot in successive seasons. The proprietors fear that they will could loose possession of the land. If borrowers are allowed to make investments in the land, such as planting trees or casing a well with cement, they might make a case to the community council for a land allotment by arguing that it has been *mise en valeur*. Since the community councils are dominated by the numerically well represented Wolof, there is an underlying struggle for control over land in these more marginal horticultural zones.

The Peri-Urban Land Market

In the southern half of the Niayes near Dakar, an active land market operates though it has not been extensively documented. Land reportedly sells for about 3 million CFA per hectare in some places, less so in others. This is an illegal activity for in theory land can only be obtained from the rural community council. Buyers purchase land directly from the village chiefs and the traditional "owners" of the land. Sometimes the community council leadership recognizes this transaction by granting a perfunctory title, but usually the transaction goes unrecorded.

The new owners quickly invest in the plot in order to demonstrate that it has been "mise en valeur." Concrete walls are built around the land, fruit trees are planted within, and small houses constructed. Expansion of fruit tree production may be compromised, however, by the growing water shortages in the Dakar region. Owners anticipate that the expansion of Dakar northwards into the Niayes will inflate the value of the land. The merchants and functionnaires buying land near Dakar, known in Senegal as "Sunday farmers," may simply be practicing farming as a temporary measure. The World Bank Structural Adjustment program may be contributing to the expansion of speculative land purchases. One government mission to the Niayes noted, "the structural adjustment programs that has succeeded in reducing the size of the public bureaucracy and diminishing the purchasing power of city dwellers has created a rush towards rural areas. The laid off, the retired, the unemployed graduates and recently the returned migrant workers place their hope in irrigated agriculture (the Senegal valley and the Niayes)."[35]

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[35]République du Sénégal, Ministère du Développement Rural/FAO, "Rapport de Consultation: Analyse et Evaluation de la Legislation Agro-foncière au Sénégal." Par Mamadou Niang, IFAN/CAD et Mamadou Ba, Ministère de Dèveloppement Rural, novembre, 1989, pp. 19. "...par ailleurs l'ajustement structural qui a réussi à décongestionner la fonction publique et dégrader le pouvoir d'achat des citadins a crée un rush vers les zones rurales. Les déflatés, les retraités, les maîtrisards et

Tenure Pressure Points in the Niayes

The Niayes has always been a location of conflicts between gardeners and herders. During the dry season livestock sometimes break through fences and enter into the plots. Disputes sometimes arise during the negotiation over fines that are to be paid by the herders and their owners. But these are minor compared to the broader threat to livestock production posed by the expansion of horticulture and fruit production. Water points and tracks long used by livestock threaten to be engulfed by gardens. As in many other parts of Senegal, livestock owners are finding it increasingly difficult to pasture animals freely. Yet it appears that a very active market for peanut hay is developing to counterbalance the loss of forage.

The agricultural economy of the Niayes near Dakar is threatened by rapid urban growth. Lowland areas once used for gardening have been converted into housing. Land use planning is critically needed to try to channel the uncontrolled expansion of the Dakar suburbs. Like in many peri-urban situations around the world, urban growth may undermine a productive agricultural base. Further analysis is needed on ways to preserve the prime agricultural locations of this unique ecological zone.

The ReMAPS Case Study of Niacoulrab: The Emerging Land Market

The ReMAPS team conducted a case study in the Niayes in order to investigate the dynamics of the emerging land market. The case study in the village of Niacoulrab in the rural community council of Sangalkam illustrates the importance in this densely settled and ecologically diverse part of rural Senegal in relation to the growth of peri-urban land markets.

In the low lands along the coast Lebu and Fulbe gardeners practice intensive dry season horticulture. Share-cropping is common. Land allocations on these very scarce and valuable lands follow traditional practices. Very few loans of land exist because the owners are fearful of loosing control of the land to the rural community council.

Unlike the lowlands, rainy season cultivation is practiced on the sandy upper slopes and plateaux. This land is being put up for sale to well-placed government officials and merchants, known popularly as "Sunday farmers." The land is purchased (illegally) from the traditional Lebu land owners of the area. To make the acquisition legally binding, the new owner requests an official allocation of land from the rural community council

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récemment les rapatriés portent leur espoir sur la culture irriguée (la vallée et les Niayes)."

and a title. To prove that the land is *mise en valeur*, the owner immediately builds a wall and plants trees. At a later date these installations can be sold for speculative purposes. Most land around the village of Niacoulrab has been sold in this fashion and now little cultivatable uplands remain nearby. Farmers are forced to look for lands as far as five kilometers away from the village.

The rural community council members acknowledge the extreme difficulties of controlling the advancing land market. Fears are expressed that soon all the uplands in the community council district will have been sold leaving future generations little access to land. Land owners and community council members are nevertheless trying to avoid the speculative sale to outsiders of the valuable lowlands used for horticulture. In this sense, the community council is promoting informal land use zoning. The community is adopting a strategy of selling less valuable land to non-residents but at the same time it is attempting to prohibit the most valuable lands from sale. These most valuable lands are to be held under traditional land tenure regimes for the future use of Lebu and Fulbe residents.

4. *The Peanut Basin: Old Tenure Systems in a New Light*

The tenure context in the Peanut Basin varies considerably despite the apparent physical homogeneity of the zone. Traditional land allocation practices tend to predominate, but in areas where particular resources are highly valued for their commercial value, disputes are breaking out between contending interest groups.

The land tenure system in the Peanut Basin is a highly complex amalgamation of overlapping rights to natural resources which have been largely determined by historical precedents. There is not <u>one</u> land tenure system in the Peanut Basin, but rather a wide number of resource allocation systems. Depending on the historical background of villages, rules and regulations governing the use of resources may vary immensely. Historical patterns of land acquisition have greatly influenced the security of access to land and other natural resources of various social categories of rural populations. Despite the *Loi Relative au Domaine National*, there are an innumerable number of what the legal anthropologist Etienne LeRoy calls "droits locals" - that is, contextually specific land tenure systems.

<u>Wolof and Sereer Land Allocation systems</u>

The traditional land tenure system of the predominant sedentary populations, the Wolof and Sereer, may be characterized as a complex composite of overlapping rights to land and other resources. In general, the principal traditional precept guiding

land allocation is that the first occupants of a territory have preeminent rights to the land and distribute it to newcomers. Masters of fire (*daj*) were the first arrivals to an area. Descendants retain "primary" rights to the land. Subsequent new arrivals received from the *daj* the "rights of the ax" (*ngadyo*). These populations retain strong primary rights as well. Strangers to the region, household slaves, and other subservient clients were also granted lands by the founding families, though rights were less secure than those of the *ngadyo*. As in many other parts of West Africa, borrowers of the land possessing "secondary rights" gradually acquire more firm rights following investments in the community.

Traditionally, the land acquired by the *ngadyo* and the *daj* could not be alienated from the members of the community, though land could be loaned. Symbolic payments of kola nuts and other gifts were given to the original land holders by borrowers. By the early twentieth century, the *ngadyo* were requiring quite substantial rents from land borrowers. Land by this time had become valuable for peanut cultivation.

The territory of a Wolof or Sereer community is usually well delineated. The spatial boundaries of the village were determined many ways, sometimes through the rights of fire or by clearing land. In other cases, the territorial limits of villages were negotiated at the time of settlement. Within the village territory, one traditionally found further spatial division. In Sereer villages, for instance, the territory is divided into three relatively distinct sub-zones: household compound lands intensively fertilized with manure and household refuse; perimeter fields on which are found *Acacia albida*; and forest fringes used for livestock grazing. Within these later two outer zones, women cultivated rice in lowland depressions during periods of more plentiful rainfall. In traditional farming systems, considerable flexibility existed in the spatial location of fields. Large tracts of land left fallow by the entire village would alternate with cultivated fields.

The emergence of centralized monarchies among the Wolof and Sereer in the 15th centuries progressively undermined the power of the early landed lineages. The royalty began to compete with the *lamans* (the Wolof and Sereer landed lineages) in allocating land. The *bur* (heads of the royalty) allocated unoccupied lands to newcomers. By the 18th century the royalty had become much more despotic. The *bur* began to install colonies of slaves and warriors on vacant lands. These villages provided food to the royal court and permanent armies. The royalty began to confiscate the lands delineated by fire from the *lamans*.

During the monarchy the royalty also began to grant to their maraboutic advisors particular domains of land (*sarax*). These lands were farmed by the students of the koranic schools. The

nobility avoided granting permanent title to lands for fear that a political counter force would develop. When the Sereer and Wolof nobility were finally crushed by the French at the turn of the century, many of the marabouts considered the land allocations to be permanent and inviolate. As the Mouride and Tidjani marabouts expanded into the "*Terres Neuves*" of the Jolof and Boal at the turn of the century, they replicated the previous land allocation practices. The disciples of the marabout cleared large parts of the bush and placed the land into peanut cultivation. The marabout controlled allocation of land within the *daara*, the villages of the disciples. Individual disciples (*taalibés*) received rights to cultivate land, though these were generally precarious rights.

Livestock Production and Grazing Rights

The Wolof and Sereer migrated into the Peanut Basin by a rather circuitous route following the Senegal river valley and then southward along the coast of Senegal. The migration of Fulbe populations from the mid-eighteenth century to the present has been characterized by a constantly expanding eastern and northern movement - one towards the "*Terres Neuves*" of Eastern Senegal (*Sénégal Oriental*) and another northwards into the marginal farming areas of the Ferlo. The expansion of peanut cultivation by Wolof and Sereer populations has forced Fulbe to move out of the central Peanut Basin once occupied as dry season grazing lands. In effect, the Fulbe grazing lands are gradually being restricted to the Ferlo. This process of compression has been at times very violent as Fulbe have tried to protect access to their grazing lands.

Livestock production is not exclusively in the hands of the Fulbe. The ReMAPS team noted that Wolof and Sereer populations maintain large herds of cattle, sheep, and goats. Surplus revenues are invested in livestock, some of which may be tended by Fulbe contract herders. The availability of sufficient grass and tree forage for livestock is of critical importance to livestock owners. The expansion of dry season gardening into the lowland *mares* (seasonal ponds) reduces the availability of dry season forage. Conflicts currently arise between gardeners, often women, and livestock herders since forage-starved cattle and small ruminants sometimes break into gardens in search of greenery. Conflicts occur around ligneous forage. A recent case study reported that land owners struggle to protect trees for forage for their own livestock in face of intrusions from neighbors.[36]

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[36]Douglas Steinbarger et al. "Report on Tree Use Rights and the Potential Impact of the Proposed Forestry Code." Senegal Reforestation Project, June, 1991.

The Colonial State: Expropriation of land for Forest Reserves

The colonial state expropriated large expanses of land for forest and pasture reserves in the Peanut Basin between the 1930s and the 1950s. As mentioned briefly in the previous section, the colonial administration established a series of semi-circular *forêts classées* and *réserves sylvo-pastorales* curving eastward from the Lac de Guiers across the Ferlo and southward towards Tambacounda. The administration hoped that this "green belt" around the eastern reaches of the Peanut Basin would halt the expansion of peanut production eastward and force the peanut farmers to adopt more intensive agricultural practices. The policy failed at that time, as it has today. The relics of these reserved forests remain, though many have been encroached upon by Mouride peanut cultivators.

The forest reserves remain a valuable national resource for many continue to serve the function of providing forage for hard pressed pastoralist and tree crop gathering populations. The conversion of the *Forêt Classée of Mbégué* (Khelkoum) from a pastoralist grazing reserve into peanut fields for several marabouts is not only an ecological catastrophe, but just as importantly, a loss of valuable forage reserves for the resident Fulbe.

The ReMAPS Case Studies of Fandène and Dankh Sène: The Diversity of Tenure Situations in the Peanut Basin

The ReMAPS project conducted two case studies, one in the territory of Fandène (Case Study 2: "Fandène: Department of Thies") and another in Dankh Sène (Case Study 4: "Dank Sène: Department of Diourbel"). Fandène was chosen to study the multi-storied agroforestry systems based upon rônier palms and mango trees while Dank Sène was chosen for its location within the site of a major agroforestry project.

The Territory of Fandène

In the territory of Fandène, seven kilometers east of Thiès, traditional Serer land tenure regimes predominate. Land is allocated efficiently between the major landed lineages of the community. The economy is in transition. The population has diversified out of groundnuts into the intensive cultivation of tree crops. Revenus from the sale of mangos and rônier palm trees now surpasses that of groundnuts (Figure 3: Evolution of Revenue Sources in the Territory of Fandène). As in other parts of the Peanut Basin, the energy crisis is severe. Firewood is very scarce. Imported butane gas is now used increasingly for cooking as well as charcoal produced in others parts of the country (Figure 4: Sources of Energy for Cooking in the Territory of Fandène).

Figure 3: Evolution of Revenue Sources in the Territory of Fandène

15 - 25 juin 1992

Meeting with Men
(Pierre Malick Diop et 2 Farmers)

SOURCES DE REVENUS	MANGUIERS	RONIERS	MANIOC	ARACHIDE	MARAI-CHAGE	MIL	RIZ
Maintenant	•••••••••• •••••••••• •••••••	•••••••••• •••••••••• •••••••••• •••••••••• ••••••	••••••••	••••••	•••••	••••	
Avant la Sécheresse				•••••••••• •••••••	•••••• (Niebé)		
Dans le Futur	•••••••••• ••••••••	•••••••••• •••••••	•••••••••• •	••••••••	••••		
Exigence en Travail	••••	•	•••	•••••••••• •••••••••• ••••	••••••• ••••••• ••••••• ••	•••••••••• •••	

Explanation: Piles of neem seeds were placed in the boxes of the grid to indicate the relative importance of sources of revenue.

Figure 4: Sources of Energy for Cooking in the Territory of Fandène

Interview with Group of Women
15 - 25 juin 1992

Source d'Energie/ Période	Bouse de Vache	Brindilles	Gros Bois	Gaz	Charbon
Avant la Sécheresse	•••••••••• •••• (Venant du Champs)	••• (Venant du Dior)	•••••••••• ••••••••• (Venant du Gol et du Dior)		
Les Années de Séchresse	••••• (Venant du Parcours de Bétail)	•••••••••• ••••••••• (Venant du Gol et du Dior)	•••••• (Venant des Champ)	•••• (Venant de Thiès)	••••
Maintenant	••••••••• (Venant des Points d'Eau)	••••••• (Venant du Gol et du Dior)	••••• (Venant des Champs)	•••••• (Venant de Thiès)	•••••• (Venant du village et du Thiès)
Avenir: Retour des Pluies					
Avenir: Persistance de la Séchresse					

The territory of Fandène represents a fascinating case of how a population employs its indigenous knowledge to develop highly intensive and profitable agroforestry system. The lowland areas of the territory are highly coveted for this is the location of an indigenous multi-storied agroforestry system in which rônier trees (*Borrassus aethiopium*) are inter-planted with mango trees at one level, and below them, field crops are cultivated intensively during the rainy season. The highly degraded "gol" lands of lateritic outcrops are the locus of land speculation stimulated by the possible passage of the Canal du Cayor through the territory. The younger generation of Fandène are concerned about the potential loss of land and are seeking ways to protect the "gol" against expropriation by external economic interests. Land allocation deliberations by the rural community council have been blocked and the *Groupement d'Intérêt Economique of Fandène* has created a development plan for the "gol" in order to assure its *mise en valeur* prior to the arrival of the Canal du Cayor.

The case study suggests that the Canal du Cayor will cause considerable social, economic, and ecological transformations to the community of Fandène. The donor community should be prepared to work with the Senegalese government to assess the consequences and mitigate the effects of the project designed to bring potable water to Dakar and to establish commercial irrigated agriculture along its path.

Dankh Sène

The second case study in the Peanut Basin took place in the village of Dank Sène, a rather typical Wolof village in the Department of Diourbel. The village was chosen by the ReMAPS team because it participates in the *Projet Agroforestier de Diourbel* and provides a good example of the problems and opportunities encountered by projects promoting agroforestry activities in the Peanut Basin.

The Wolof village is led by two chiefs, aided by a council of elders, who regulate most of the village affairs. The traditional land tenure system predominates with land being passed down patrilineally. Women marrying into the male household receive plots of family lands as long as they are a member of the household. The founding families control larger plots of land than newcomers, but land is loaned quite freely though not for more than two years. Land holders fear that longer loans will permit acquisition under the *Loi Relative au Domaine National*. The village divides its territories into different land use zones. The exterior reaches of the territory is used for livestock grazing while the interior areas around the village are more intensively cultivated. Degradation of the resource base is severe.

The women of Dankh Sène are forced to pay surreptitiously Fulbe herders for wood cut from the valuable *Acacia albida* trees when the latter exercise traditional rights to lop this species for forage. Despite the severe shortage of fire wood and the organizational strength of a rather dynamic women's association, the Projet Agroforestier introduced a series of technical innovations of little interest to even the men of the village. The project encouraged the villagers to plant *Acacia seyel* trees, yet the men preferred the *Acacia albida*. Villagers questioned the effectiveness of transplanting seedlings because they felt that natural regeneration was more effective. The project has failed thus far to incorporate the store of valuable indigenous knowledge possess by villagers.

Like many of the community councils observed in the case study, financial constraints severely hinder the functioning of the institution. With a budget of only 1.7 million CFA to be apportioned for projects among the 24 villages of the Dank Sène district, the community council is severely limited in its actions. Community councils in these difficult conditions have instituted an institutional innovation to profit to the maximum from the "Fond de Concours." Since it is difficult to obtain 100% payment of taxes, the council borrows funds from merchants in order to meet the obligations to the treasury. This then qualifies them for a supplemental government apportionment and reimbursement of the loan. Despite the limitations of the council, it plays an important role in local level rule making. Each year the council sets the opening and closing dates for livestock tethering, an essential function that reduces crop damage and conflicts between farmers and herders.

5. *Sénégal Oriental: The Last Frontier*

The vast eastern regions of Senegal (*Sénégal Oriental*) are generally quite underpopulated and thus they have served as a zone of in-migration by populations arriving from the densely settled western Peanut Basin. The region is perceived in Senegal as the "Terres Neuves" because of its low population density and abundant resources. In the early 1970s, at the start of the migration out of the western-most part of the Peanut Basin, large parts of the zone only contained a population of 5 inhabitants per km^2 whereas in many parts of western Senegal the population was as high as 80 - 100 inhabitants per km^2. At that time the average national population density was about 20 inhabitants per km^2. The tenure situation in Sénégal Oriental is largely characterized by a set of tensions arising out of the settlement of "newcomers" into an area lightly populated by people of heterogeneous cultural backgrounds. This low population density has drawn in not only settlers engaged in agriculture, but a large population of charcoal makers and woodcutters who covet the

dense forests for the charcoal and wood that can be sold to the urban markets of the western part of the Senegal. The ReMAPS project also identified a tenure issue linked to the tourist industry - the zone of the waterfall near Dindéfello in the Department of Kédougou.

Tenure and Spontaneous and Planned Settlements

The eastern reaches of Senegal have long been lightly populated due to the lack of readily available water. Populations inhabited primarily the lowland river courses where water could be obtained during the dry season through the construction of "séanes" into the river bottoms and where soils were lighter and easier to cultivate. The populations of eastern Senegal were heterogeneous mixes primarily consisting of Mandinkas and Fulbe and smaller numbers of Toucouleur, Wolof, and Bambara.

In the early 1970s the Senegalese government created the Société des Terres Neuves (S.T.N.), financed to a large degree by the World Bank, with the mission of resettling farmers from the densely occupied western Peanut Basin. By the mid-1970s the S.T.N. was actively engaged in moving Serer and Wolof households into the area near Koumpentoum and Maka.[37] Later the government encouraged other parastatals such as OFADEC and some non-governmental organizations to participate in resettlement schemes.

Initially the installation by the S.T.N. of new arrivals in this "zone pionnier" posed few problems with the original inhabitants of this newly opened settlement area. The resettlement schemes helped create new villages on the upland slopes and thus this affected marginally the resident populations cultivating the lowlands. Land tenure problems were not generally noted at the time of the arrival of the first migrants. Indeed, relations were good because the S.T.N. built new roads, wells, and other public infrastructures in the settlement zones that benefitted all. In the new villages, resettled farmers tended to replicate the traditional land tenure system of their original Wolof or Serer homelands. A patchwork of diverse land tenure systems are therefore found throughout the zone.

The S.T.N. planners provided a technical package to the new settlers to encourage them to intensify agriculture. Animal traction was encouraged, fertilizer use was subsidized, and extension agents were placed in each new village.

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[37]For references on this planned migration, see Pierre-Navier Tringaz, "Transformations sociales dans les zones nouvelles d'implamantation rurale: Les Serer dans les Terres Neuves du Sénégal Oriental," Cahiers ORSTOM, série Sciences Humaines, XVI no. 1-2 (1979): 19-36.

Intensification did not occur as planned. Rather, villagers adopted an extensive form of agricultural cultivation. Large fields were cleared out of the forest by the first settlers to indicate "rights of first occupancy," one of the fundamental precepts of customary land tenure norms. The phenomenal increase in the amount of land placed under cultivation soon began to be felt by the resident populations. The Fulbe "Niani" residents of the Koumpetoum area (38% of the population in the early 1970s) soon found that their grazing areas were being encroached upon. The forest was no longer a limitless resource for livestock grazing. Conflicts began to erupt over crop damage. Village settlements that had once been viewed as a positive contribution to the development of the area soon began to be perceived as a threat to the survival of agro-pastoralism.

The planned settlement schemes were soon followed by a spontaneous migration of Wolof and Serer from the Peanut Basin. As deep boreholes and wells were dug throughout the zone by government and non-governmental projects, the once empty forested areas were rapidly cleared and cultivated. Farmers quickly cleared as much land as possible to demonstrate that the land was *mise en valeur* or developed agriculturally. Large parts of eastern Senegal remained under the legal category of "*zones pionnières*" until as late as 1986. The community councils of the Region of Tambacounda have been the last to be formed in the country. Farmers may be clearing large plots of land as a way to demonstrate *mise en valeur* before the *Loi Relative au Domaine National* is instituted fully. Land clearing for commercial field crop cultivation is also spurred by the active involvement of the Société de Développement des Fibres Textiles (SODEFITEX) in promoting cotton production. The ReMAPS team noted in the zone near the forest reserve of Dabo that farmers justified the widespread removal of trees from cotton fields in claiming that trees interfere with cotton growing and cultivation by animal traction (See Case Study 7, "Pidiro, Department of Kolda").

Eastern Senegal is also characterized by the presence of the Islamic Mouride farmers - the pillars of peanut production in much of western Senegal. The spontaneous expansion of the Mourides into the "Terres Neuves" is well documented through the research of the O.R.S.T.O.M.[38] The "Terres Neuves" have long been coveted by the Mouride religious hierarchy for both agricultural and commercial reasons. As the peanut cultivation zones of the sandy western part of the country have become less suitable for farming due to the decline in soil fertility, the Mourides have moved progressively eastward. The Fulbe agro-pastoralists have continued to be muscled out of the way

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[38]G. Rocheteau, "Pionniers Mourides au Sénégal: Colonisation des Terres Neuves et transformations d'une économie paysanne," Cahiers ORSTOM, série Sciences Humaines, XII no. 1(1975): 19-53.

following the creation of new daara settlements. Traditional rights of first occupancy of the long-term Fulbe resident populations have not been in the least way respected. Peanut cultivation by the Mourides and livestock raising by the Fulbe have long been incompatible in other parts of Senegal, and this incompatibility continues to be reproduced in the "Terres Neuves." The land tenure regimes of the Mouride settlements have also been reproduced in these new villages. The founding maraboutic families retain very strong control over the allocation of the large expanses of land cleared ou of the forest. Wealthy maraboutic families engaged in commerce have invested in eastern Senegal by organizing the *mise en valeur* of large fields cultivated by disciples who live in villages where the marabouts have themselves strong commercial investments. For the original resident populations of the "Terres Neuves," the arrival of the Mourides and their large labor force has constrained the possibilities for agricultural expansion and the maintenance of traditional bush fallow systems.

Charcoal Production and the Defense of Village Territories

Sénégal Oriental is one of the primary sources of firewood and charcoal for the urban markets of Senegal. As forests in this region have disappeared, the village economy and ecology has been severely affected.[39] Fulbe from the impoverished Guinean highlands work for Senegalese patrons to cut down live trees and transform them into charcoal. At first the uninhabited forests of the western fringes of Sénégal Oriental were the prime locations for woodcutting. Teams of *surga* would move into an area and spend several months making charcoal kilns in the inner reaches of the thick forests. Gradually these uplands were cleared and the production system has moved down into the lowlands occupied by the resident populations. The central tenure problem is that the residents find it nearly impossible to control the activities of the charcoal cutters. Multiple-purpose tree species are removed to the great consternation of these villagers. The loss of the "dimb" tree (*Cordyla pinnata*) is particularly lamented as it provides fruit, medicines, and wood used for a variety of purposes.

Village level institutions face enormous difficulties in managing any forest resources beyond the immediate vicinity of homestead fields. The charcoal economy is a vivid example of the difficulties resident populations face in controlling the use of

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[39]See case studies in: Jesse Ribot, "Forestry Policy and the Charcoal Industry: A Case Study of Environmental Decline in Senegal's Villages." Energy and Resources Group of the University of California at Berkeley, March, 1989 and; Bergeret, Anne and Jesse C. Ribot. l'Arbre nourricier en pays sahélien. Paris: Editions de la Maison des sciences de l'homme, 1990.

natural resources located in their village territories against well organized exploitation by non-residents of the territory. The problem is extremely complex because provision of low cost charcoal to the urban economy is politically essential to the survival of the regime in power. The forestry service is obliged to assure the uninterrupted supply of charcoal even though it fully recognizes the high ecological costs of this policy. Unless the demand for charcoal declines as a result of the provision of inexpensive alternative fuel sources to urban users, the forests of Senegal will continue to be cut down at an alarming rate.

For villages in the zones of charcoal production, it is nearly impossible to control the actions of charcoal makers. Charcoal makers usually do possess wood cutting permits issued by the forestry service. In addition, they often receive strong support from their politically powerful patrons. As one farmer noted to a research team,

> La communication entre les gens et le gouvernement est difficile...Au gouvernement les gens ne sont pas sérieux. Ils donnent des permis de coupe à tort et à travers. La Communauté rurale ne peut pas jouer bien son rôle. Il y a conflit: les Peul de Guinée arrivent avec des permis des Eaux et Forêts. Les clandestins, il y a en aussi. Mais eux les paysans, ils ne peuvent pas les contrôler. Ils n'ont pas des moyens.[40]

The frustration of resident rural populations against the charcoal makers is certainly evident.

The rural community councils similarly confront major impediments to the control of the charcoal makers and the unplanned settlement of Mouride farming communities. In the contest of power against the state and its allied commercial interests, community councils have few options. Another statement by a farmer is highly illustrative of the problem:

> Une fois en 1980, la Communauté rurale a essayé d'interdire les charbonniers clandestins. Le président de la Communauté rurale a rencontré des charbonniers. Il a saisi leurs haches et a convoqué les charbonniers devant la Communauté rurale. Mais les charbonniers, au lieu d'aller devant la Communauté rurale, sont allées se plaindre à la sous-préfecture. Les autorités et les responsables politiques ont réinstallé les charbonniers dans nos forêts.... Et où sont les frontières d'un village? C'est un problème

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[40]ibid., p. 136.

collectif, avec d'autres villages...[41]

The residents of rural community council districts are further hindered in their attempts to plan the use of natural resources since the Mouride marabouts can assure placement of their followers on the council. These powerful religious figures influence strongly the selection of candidates on the political party slates.

In this charged political context, village associations and inter-village federations find fertile ground. The rapid emergence of such strong associations as the Entente de Koumpentum may be the outcome of villages seeking to protect their surrounding resources from exploitation by outside economic interests. As the rural federations of the region of Tambacounda gain greater organizational capacity, they appear to be gaining greater influence on the rural community councils. Representatives of the federations may be able to use their newly acquired power to restrict excessive exploitation.

The ReMAPS Case Study of Dindéfello: Tourism, Tenure, and Waterfalls

The ReMAPS team, led by researchers of the Institut des Sciences de l'Environnement of the University Cheikh Anta Diop conducted a case study of what it initially perceived as an innovative village-led initiative to manage the Dindéfello waterfall and the surrounding flora and fauna. The team knew that the village had set up a small tourist encampment and that it was attempting to develop the touristic potential of the waterfall. The beautiful waterfall and unique micro-ecological climate near the village of Dindéfello (Department of Kédougou, Arrondissement of Bandafassi) belies a serious land tenure problem. The unique tenure problems pits the tourist industry against the interests of resident villagers.

The ReMAPS team reported on the tenure and institutional arrangements of Dindéfello, a village founded by Fulbe immigrants in the early twentieth century. As the teams found in other case study villages, the economy is presently diversifying from a dependence on peanut production to one based on not only peanuts but also rice, corn, gardening, fruit tree production, tree crop collecting, and livestock production (Figure 5: Principal Sources of Revenue in Dindéfello).

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[41]ibid., p. 137.

Figure 5: Principal Source of Revenue in Dindéfello

Meeting with Elders of Dindéfello

SOURCE DE REVENUS/ PERIODES	ARA-CHIDE	RIZ	MAIS	MARAI-CHAGE	MAN-GUIER	TAMA-RIN	ELE-VAGE
Avant 1960	•						
Maintenant	•	•••	•••	•••••	••••••	••••	•••••• •
Futur	••		••••••	•	•••••	••••••	•••

N.B. Rice production was introduced by SODIFITEX and the village anticipates setting up a tamarind reforestation project.

Explanation: Villagers were asked to indicate through the use of piles of stones the key sources of revenue from the pre-independence period to the present. The chart clearly shows the diversification of the economy in the village.

The National Park Service of Senegal has long been interested in creating a national park around the waterfall and the diversified biological communities found near the year-round water source. Ecological studies indicate that the last population of wild West African chimpanzees reside in this area. In addition, certain plants typical of Guinean forests are found in this area but not elsewhere in Senegal. The intentions of the Park Service have been rigorously resisted not only by the villagers of Dindéfello but also certain hoteliers in Kédougou. Villagers fear in part that the creation of a park would remove rights of access to a precious water supply crucial during the late dry season. The experience of the National Park of Nikola Koba is vivid in the minds of all since many villages were permanently moved out of the park in the 1950s. The villagers of Dindéfello and the tourist companies of Kédougou also generate economic returns from guiding tourists to the waterfall. Dindéfello has constructed a small hotel near the waterfalls and firms in Kédougou take tourists out for daily visits.

When the National Park Service announced that it would create a national park, the villagers of Dindéfello resisted by tenaciously requesting from the government the right to exploit the area for tourism themselves. This request was granted and the villagers built a "campement touristique" with the aid of the Peace Corps and the Self-Help fund of the U.S. Embassy. Since the opening of the campement in 1989, it has lodged over 450 visitors. Despite the success of the "Project Campement Touristique de Dindéfello," the villagers are highly pessimistic of its future because of what they call "savage" competition from the hotels in Kédougou. These hotels take tourists out to the waterfalls for day trips and return them to the more luxurious conditions of the Kédougou hotels. The Dindéfello campement thereby looses the revenue from what could have been a considerable number of overnight guests. The Dindéfello villagers proposed to the *préfet* of Kédougou that they be allowed to charge a small tax on every tourist who does not stay at the village campement. The *préfet* refused this request in arguing that the waterfalls are a national resource and thus open to free and unencumbered access by all. Some villagers question whether the administration has ties with the Kédougou hotel interests. Strict interpretation of the *Loi Relative aux Communautés Rurales* would suggest that the rural community council of Bandafassi has the clear legal right to establish legislation governing the use of the vegetation and possibly even the stream. Appeals by the villagers, however, is difficult to organize because of the complexity of the law and the scant legal education of the villagers.

Natural resource endowments of the waterfall area are in danger of being over-exploited. No rules currently restrict the use of the waterfall and its surroundings. Tourists pollute the

area with trash. Villagers use the water to wash their clothing and hence this may damage some of the sensitive surrounding vegetation. The rebuff from the *préfet* has diminished the enthusiasm of the villagers to manage the resource on a sustainable basis. An opportunity had been presented to create a common property management system around the waterfalls in which both the National Park Service and the villagers could have jointly created the rules for using the zone. But this unparalleled opportunity for the establishment of a "co-management" arrangements may have been lost. The possibility exists that the National Park Service will expropriate the waterfalls, forbid village use of the area, and turn management control over to concessionaires.

6. *The Casamance: The Troubled Eden*

The Casamance is perceived by government planners and donors as one of the last frontiers of fertile and highly productive agricultural land. While this territory holds much potential for the future agricultural development of Senegal, the resident populations fear a massive influx of migrants from northern Senegal in search of fertile land. The land tenure situation of the Casamance is characterized by insecurity.

The administrative region of the Casamance contains several different micro-ecological zones. As a result, the tenure situation varies considerably from place to place. For the purposes of this report, it is helpful to divide the region up into two distinct areas and to interpret the land tenure and institutional situation accordingly. These subdivisions are the Lower and Middle Casamance. Tenure and natural resource management practices have been extensively studied in the Casamance by numerous specialists.[42] This section will do no more than to highlight the existence of new "tenure pressure points." This review does not focus on the existence of historically deep tensions between the indigenous populations of the area, a subject dealt with well in the literature.

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[42]For example, see: Gerti Hessling. Le Droit foncier au Sénégal: L'Impact de la réforme foncière en Basse Casamance.nd.(1984?); Francis G. Snyder, "Colonialism and Legal Form: The Creation of 'Customary Law' in Senegal," Journal of Legal Pluralism 19, 1981: 49-90; J. van der Klei, "Anciens et nouveaux droits fonciers chez les Diola au Sénégal et leurs conséquences pour la répartition des terres." African Perspectives no. 1, 1978: 53-66;

The Lower Casamance

Land tenure conflicts in the Departments of Bignona, Ziguinchor, and Oussouyi are one of the causes of the current political difficulties in the zone. The resident populations, largely Diola, now fear and actively resist the entry of non-resident "outsiders." Generally these are populations from northern Senegal who have recently settled in the area to try to extract a livelihood out of the rich natural resources of the area. For decades, though, populations from northern Senegal have been moving into the relatively underpopulated area, though these earlier arrivals have built numerous familial ties with the surrounding Diola populations.[43]

Families once dependent on fishing along the Senegal river and the Lac de Guiers have moved south into the Casamance in order to fish the streams and estuaries of this area. In the past this would not have presented many difficulties for the Diola. However, following the decades of declining rainfall, swamp rice cultivation, the mainstay of the Diola agrarian system, is no longer as viable as it was in the past. Consequently, the Diola search to diversify their sources of livelihood. This has proved difficult. Even the Diola's try to enter into fishing, but find that is avenue is blocked. The fishing is currently occupied by non-resident northerners. Frustrations have mounted. The recent killings of fishermen from northern Senegal by Separatists may reflect some of these deep seated fears that the natural resources of the region no longer suffice for all.

Following the establishment of the rural community councils, the counsellors received very little training in the use of the law. External economic interests (eg. functionnaires and merchants) were able to use the *Loi Relative au Domaine National* to their advantage to obtain plots of land for lucrative plantations of fruits and vegetables. In other instances the rural community counsellors granted Wolof farmers land on the upland plateaux for peanut fields. Considerable consternation is being raised about the migration of Mouride settlers into the zone and the founding of *daaras*. The original land allocations have served as an entry point for the Mourides. Settlements and associated fields have mushroomed in size. As Diola themselves move into peanut production, the face a land shortage on these upland slopes.

The government of Senegal and donor agencies have sponsored

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[43]An excellent review of the current Casamance crisis in relation to land problems is reviewed in: Marie-Christine Cormier-Salem, "Désarroi et révolte en terre de Casamance." Le Monde Diplomatique. Février 1993.

numerous development projects in the lower Casamance. Irrigation projects have been started along river valleys. These projects have been designed to halt the salinization of rice lands which have resulted from the transformed hydrological regimes of decades of low rainfall. Villagers living around these dams and irrigation plots have not always gained access to the newly opened up lands and have watched the plots be given away to non-residents. Frustrations are especially great when the resident villagers have contributed labor but then find that they have been excluded from acquiring access to fields.

Tensions have heightened recently over the use of forests. Resentments linger that some forest reserves were created around sacred forests during the colonial period but that now they are being desecrated by lumber cutters and charcoal makers. Massive quantities of rônier palms are being exported to The Gambia for lumber, apparently with the knowledge and possible acquiescence of both border guards and forestry agents. The rônier tree is a multi-purpose tree essential to the Casamance economy for its palm products such as lumber, thatch, palm wine, and fruit. While local residents themselves are often engaged in the trade, there are no longer strong local institutions capable of halting the destruction of the tree and fostering sustainable use of the species.

The perceived "invasion" by non-residents is further exacerbated by long-held frustrations with the administration. Often the *sous-préfets*, *préfets*, and governors come from outside the region and only stay in the Casamance for short periods of time. In neither knowing well the local customs nor speaking the local languages, the administrators comprehend with difficulty the underlying fears of the population. When outbreaks of violence occur, these administrators are then placed in particularly difficult positions as defenders of the central government positions rather than mediators sympathetic to local concerns.

The Middle Casamance

For the purposes of this analysis, the Departments of Sédhiou and Kolda are considered part of the Greater Casamance. Here the tenure problems are quite similar to the Lower Casamance, though the problems are compounded by tensions between sedentary and pastoralist populations. In-migration of populations from Guinea, Guinea Bissau, Mali, and The Gambia in search of better economic opportunities has resulted in the expansion of field crop cultivation and the compression of grazing areas used by the Fulbe for livestock production. To compound this growing land shortage, numerous development programs have instituted anti-salt dams. Disputes have arisen over the management of the water flow in these structures, disputes which often pit residents against each other.

The ReMAPS Case Study of Pidiro: The Unmet Potential of Participatory Forest Management

The ReMAPS team conducted a case study in Pidiro, a village located near the forest reserve of Dabo (Case Study 7, "Pidiro, Department of Kolda"). The site was selected in order to investigate the success of the reputed participatory forest management scheme set up by the forestry service. After consultation with forestry service agents, the team chose Pidiro, a small village bordering the forest reserve.

The case study reflects many of the strains occurring in the southeastern reaches of the Casamance. Until now land allocation practices have generally followed customary practices in the villages surrounding the forest reserve of Dabo. However, fundamental changes in land allocation practices will commence in the 1993-1994 agricultural season. The rural community council is requesting each farmer to obtain approval from the council for each piece of land to be cleared for cultivation. Plans are under way to register the titles of land occupiers. Tensions are mounting around this new requirement. Land loaning for seasonal cultivation is declining in expectation of the new measures.

The villages around the forest reserve of Dabo are experiencing an increasingly severe land shortage. Pastoralists are feeling the early effects. Livestock production is an integral part of the livelihood strategies of the Pidiro Fulbe. With the advent of the drought years and the expansion of field crop production in the zone (peanuts and cotton), traditional water points have become scarce. As field crop production expands into areas once used exclusively for grazing and watering of livestock by the Fulbe, conflicts are emerging between farmers and herders. Livestock raisers have become increasingly dependent upon the use of the forest reserve of Dabo for water found in lowland "*mares*" (seasonal pools) and the abundant forage found around these scattered spots. The growing dependence of large livestock owners (2% of the population as estimated by a wealth ranking exercise) on the forest reserves pit them against those village interests that depend primarily on the cultivation of field crops (as much as 79% of the population as estimated through a wealth ranking exercise). The poorer elements of Pidiro look to the forest reserve of Dabo as an opportunity to obtain access to the rich soils found there. The poorest social categories thus resents the presence of the forestry agents seeking to enforce a wide range of restrictions against the use of the forest. To the contrary, wealthy cattle raisers appreciate the interference of the forestry service for it protects their access to pastures.

The forestry service has been attempting to establish a decentralized and participatory management scheme for the forest reserve of Dabo. The ReMAPS case study focused on the

institutional dimensions of the "*Projet d'Aménagement de la Forêt de Dabo*," considered one of the model community forestry projects in Senegal. Twenty-six neighboring villages are to collaborate in the development of this project. A forest management plan is to be drawn up for the forest that would balance the needs of cultivators, pastoralists, tree crop gatherers, and honey collectors. The project has set up eight *Groupements de Gestion Forestière* (G.G.F.) to coordinate the actions of *Associations de Base* (A.B.) organized at the village level, each one set up as a resource user-group. The *Associations de Base* are to be trained in forest management practices by four "*animateurs*" hired by the project and who work for the project's "*Bureau Information, Formation et Sensibilisation*."

The "*Projet d'Aménagement de la Forêt de Dabo*" has not yet succeeded in setting up a viable institutional structure to manage the forest. The G.G.F. of Pidiro was created in 1991 yet until now village participants feel little attachment to the group. When an attempt was made to build a firebreak around part of the forest reserve, only 15 out of 72 members showed up. Most preferred to harvest the abundant bamboo and other forest products in the forest rather than participate in project activities judged to be minimally effective.

The population of Pidiro felt that the project had imposed an institutional structure on the village and that it had failed to build support from the traditional power structures. Indeed, the ReMAPS team found that the project had not established a consultative process with the village chief, imam, council of elders (*dental juulge*), an active women's association and two youth associations. No linkages existed between the powerful traditional structures and the project. As a result, the project extension workers could not generate the participation of the villagers needed to design and implement forest management plans. Charges were bandied about by the villagers that the A.B. was simply a source for free labor (" *une équipe de bon marché pour le projet*") and that the project had never explained the nature of the planned activities to the village authorities.

This sobering tale highlights the importance of first finding out how local institutions operate before designing natural resources projects. Certainly, there were opportunities to create strong resource management committees out of traditional village institutions. The project simply did not investigate closely these structures. The project imposed an elegant, but foreign superstructure over pre-existing village organizations.

C. Senegalese Land Law and the Interface with Local Level Tenure Regimes

The very brief case studies of the tenure situation in the various regions of Senegal suggest that the statutory norms of the Senegalese state are progressively merging with customary land allocation systems. Yet customary land tenure regimes remain remarkably strong in rural areas despite the nearly thirty year existence of the *Loi Relative au Domaine National*. The gradual evolution of tenure regimes in Senegal may be due to resistance on the part of rural populations to some legal statutes. This is constantly hinted at in gatherings of government administrators. As one respected retired official stated at the ReMAPS sponsored conference on "Natural Resource Management by Local Collectivities," "one must say that after 20 years of application of the *Loi sur le domaine national* by rural collectivities it would be appropriate to reflect over the results accomplished, for to me it would seems that there is an increasing problem of acceptability of the law by the rural populations."[44]

This section reviews briefly the process and consequences of the gradual yet conflictual adoption by rural communities of the land laws of Senegal.

1. *The Selective Acceptance of the Loi Relative au Domaine National*

The *Loi Relative au Domaine National* is selectively accepted across the country. There are an innumerable number of unique local level tenure regimes, none of which follow the standard precepts of either the statutes nor customary land allocation traditions. From both the ReMAPS case studies and the review of the literature on tenure, one can conceptualize the progressive application of the law in the following way.

1) Predominance of Customary Tenure Precepts around Resources of Little Commercial Value

The influence of traditional land tenure regimes is still very strong in those areas where land and other natural resources

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[44]Gorgui Alioune Diouf, "Analyse historique et comparative de la régionalisation," Université de Saint-Louis, Séminaire sur la gestion des ressources naturelles par les collectivités locales," 3 - 5 novembre 1992, "...il faut dire qu' après 20 ans d'application de la Loi sur le domaine national par les collectivités rurales il serait indiqué de réfléchir sur la résultat acquis, car pour moi il se pose de plus en plus le problème de l'acceptabilité de la loi par les populations rurales." p. 22.

are not highly valued for commercial purposes. As a consequence of extended drought and poor economic incentives, land once highly valued for agriculture holds much less importance today. Rural populations are often abandoning production of peanuts for export and diversifying considerably their income generating strategies. Land once highly esteemed for peanut production (generally sandy soils) is less valued than at the heyday of the peanut economy. Lineages and clans that possess historically determined rights of first occupancy tend to remain the dominant forces in the allocation of rights of access to land and other natural resources. The rural community councils play almost no role in the allocation of land around these economically more marginal areas. Serious disputes rarely arise over these lands.

2) Predominance of the *Loi Relative au Domaine National* and other Resource Legislation around Resources of Great Commercial Value

In those areas where land, pastures, and trees are increasingly valued for commercial purposes, conflicts tend to emerge as various resource user-groups attempt to lay exclusive claim to the resource. Land of high value is generally found around cities, irrigation sites, and lowland depressions suitable for horticulture. Resident populations often attempt to protect long held rights to the resources in the face of threats of expropriation from non-residents. In these areas of high land value one tends to see the emergence of land markets, such as along the Niayes near Dakar.

Private rights to land and other natural resources become much better articulated in these situations. Traditional land owners will try to delineate their lands through fences, tree planting along perimeters, and avoidance of long-term land leases. Well-maintained "*sélane*" fences is often an indication of the commercial importance of land for either speculative or agricultural purposes.

On land formerly used as village commons one often finds that traditional land allocation authorities (eg. heads of lineages and chiefs) generally lack the power to enforce traditional rules governing resource transfers. Rule-making functions break down and leave in their wake an "open-access" situation where no rules regulate the use of the resource. In these instances, the land is up for grabs by whomever can control and exclude unwanted users.

Interest groups will often try to use the *Loi Relative au Domaine National* to gain access to commercially valuable land. The rural community council in these cases become the locus of the land allocation struggle. Powerful interests external to the community often succeed in acquiring land through manipulation of the law and the council members. Frequently, outsider

entrepreneurs will argue to the rural community council that they have superior means at stake to economically develop (*mettre en valeur*) the coveted land. Land is thus ceded for development by the newcomers to a rural community. At this stage, the rural community council becomes the central actor in the allocation of commercially valuable lands.

2. *Residents versus Outsiders*

Land law has not remained static since the independence period. Rather, changes in the legislative arsenal clearly reflect the evolution of the Senegalese economy over the past thirty years. Legal provisions were originally designed to assure traditional landholders their customary rights to land but over time these priority rights to residents have been eroded by legislative and administrative changes. This progressive shift leads to considerable tenure and insecurity, especially around more valuable lands used for irrigation or horticultural purposes.

The land laws of Senegal state that land can only be allocated by the leadership of the community council to <u>those people living within the community council itself</u>. Article 8 of the 1964 *Loi Relative au Domaine National* states that "the land of the territorial zone is allocated to members of the rural community council."[45] Those who had access to land at the time of the new legislation are explicitly permitted to maintain their traditional land rights. Article 15 states that "the individuals occupying and exploiting personally the lands of the National Domain at the time of the application of this law will continue to occupy and exploit the land."[46] The principal of protection of customary rights to land was further enunciated through the decree no. 64-573 of July 30, 1964. The law stated that "the farming lands and cleared land are allocated to members of the community, grouped or not in associations or cooperatives."[47]

Considerable debate has been generated around the definition of "the individuals occupying and exploiting personally the lands

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[45]Loi Relative au Domaine National, Article 8. "...les terres de la zone des terroirs sont affectées aux membres des communautés rurales..."

[46]Loi Relative au Domaine National, Article 15. "...les personnes occupant et exploitant personnellement des terres dépendant du Domaine National à la date d'entrée en vigueur de la présente loi continueront à les occuper et à les exploiter."

[47]Décrêt no. 64-573 of July 30, 1964. "...les terres de culture et de défrichement sont affectées aux membres de la communauté, groupés ou non en association ou coopératives."

of the National Domain." For example, one question is: Is a bush fallow at the time of the implementation of the law an example of occupation and exploitation of the land? Further questions have recently been raised about what constitutes "members of the community" (*membres de la communauté*)? Does this clause imply that only those who reside in a particular council district have the right to receive land from the community council, or does "community" imply the citizens of the entire nation? In this case, any Senegalese citizen has rights of access to land anywhere in the country.[48]

The key precept that the resident populations of a community council possess preferential land use-rights has been progressively undermined by subsequent legislation, presidential edicts, and governmental policy. As the land expert Jacques Gastaldi concluded in a recent World Bank report on the land tenure situation in Senegal, "thus, it is today admitted that without legislative protections nor regulations, that individuals from outside of the community can, it seems, be allocated land by representatives of the State and the rural community councilors irrespective of any controls."[49] This progressive weakening of the legal rights of resident communities promises to heighten tensions and conflicts between rural communities and the state.

Largely as a consequence of the development of irrigated agriculture along the Senegal river valley and in the Casamance, the state has created a legal and policy context in which "outsiders" are allowed to invest within the territory nominally controlled by the rural community council. In effect this has increased security for external "entrepreneurs," as many donors would like, but it has decreased security of access to land for the indigenous populations.

Various contradictory governmental pronouncements have been made on this subject. An interministerial council in 1986 stated that when land to newly developed irrigated perimeters is allocated, a priority should be given first to resident

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[48]This point has been extensively debated by Marc Debène in "La Legislation foncière et son application dans le cadre de l'Après-Barrages: Diagnostic et Recommendations." République du Sénégal. Ministère du Plan et de la Coopération/UNDP. Février, 1990, pp. 24-27.

[49]Gastaldi, Jacques. "Politique foncière agricole." Rapport de mission du 6 au 15 décembre 1990. Dakar, Banque Mondiale. "enfin il est aujourd'hui admis, sans encadrement législatif ou réglementaire, que des personnes étrangers aux communautés puissent y être affectaires et ce à la diligence combinée - semble-t-il des représentants de l'Etat et des conseils ruraux, exerçant alors en dehors de tout contrôle."

populations, secondly to private national entrepreneurs, and finally to joint ventures with international agribusiness firms. It increasingly seems that any national entrepreneur with sufficient capital to invest in agribusiness ventures may do so in any part of the country. This is a potentially explosive land policy. As indicated previously, the policy of promoting the entry of "outsiders" into the territory of resident populations promises to be the source of many land disputes and possible civil unrest.

As a result of this growing rural insecurity, long-term residents try to protect their resources against expropriation by non-resident individuals and groups. At this juncture, the *Loi Relative au Domaine National* becomes a dominant element in the conflicts. In areas where land is highly valued, traditional land loaning practices are disappearing. Land holders fear that loans of longer than two years will give borrowers legal justifications to acquire the plots from the rural community councils. Traditional land owners are forbidding tree planting and other activities which render the land more productive. Borrowers are loosing as a result the incentive to conserve and improve lands borrowed through customary arrangements. Entrepreneurial interests from outside of an area who try to gain access to valuable lands, such as prime zones suitable for irrigation along the Senegal river, use every justification imaginable to demonstrate to the authorities that the land used by resident villagers is not sufficiently *mise en valeur* and that it should therefore be allocated to more entrepreneurial types.

A wide range of techniques are now practiced in rural areas to demonstrate that land is being fully exploited, even though some of these practices are ecologically harmful. From a positive ecological perspective, farmers are planting trees, hedges, and windbreaks to prove that the land is *mise en valuer*. Land borrowers are carefully trimming naturally regenerating trees in their fields to try to maintain possession. Land owners, on the other hand, only loan out plots in the middle of their fields to prove to everyone that the land was loaned and not given away.[50] In other parts of the Peanut Basin, farmers have reportedly abandoned bush fallow rotations because of perceived insecurity of land ownership. Farmers near Mbour clear and plant fields quickly with little or no intention of harvesting crops. They simply hope to show that the land is in

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[50]For a detailed analysis of these practices, see: Karen Schoonmaker Freudenberger and Mark Schoonmaker Freudenberger, "Fields, Fallow and Flexibility: Natural Resource Management in Ndam Mor Fademba, Senegal." Results of a Rapid Rural Appraisal carried out from 25-30 October, 1991. World Vision/Senegal and International Institute for Environmental and Development, London, England.

production.[51]

3. *Disputes and Dispute Resolution around Natural Resources*

In the places where the commercial value of land and other natural resources is increasing rapidly, the complex and contradictory legislation clashes with traditional concepts of land tenure. Disputants calculate carefully what judicial course they will take to acquire or protect access to natural resources. Some rely on the modern legal corpus to acquire and justify claims to land; others fall back on customary norms to protect long-held rights. Villagers generally go to great lengths to try to resolve land conflicts through traditional dispute resolution bodies (village chiefs, councils of elders, imams, customary dispute mediation groups). Urban based interests familiar with the law try to use legal provisions to acquire these lands. Political pressure is applied to the state to use clauses of the law no. 76-67 of July 2, 1976 *Relative à l'expropriation pour cause d'utilité publique et aux autres opérations foncières d'utilité publique* to gain title to land for projects in the "public interest." In many cases, the rural community councils are the venue for the mediation of the clash between the statutory law and customary norms. What emerges from this dispute resolution process is a set of land use practices unique to the community council district that is neither purely in accordance with the law nor in full conformity with customary land law.

Conflicts around natural resources are resolved in an ascending order of complexity. Conflicts are often settled through "first order" conflict resolution bodies - village chiefs, councils of elders ("conseils de notables"), religious figures (imams and clergy), traditional conflict resolution bodies (*saltigi, farba*), respected non-governmental rural associations, political leaders, and respected merchants. When conflicts fail to be resolved at this initial level, they rise to "second order" conflict resolution bodies - the community council, the administration (*sous-préfets* and *préfets*), the CERP and the gendarmerie. The potentially explosive nature of natural resource disputes is one of the primary preoccupations of the *sous-préfets* and *préfets*. These administrators employ various legal and extra-legal means to "keep the peace," or to settle conflicts "à l'aimable." This process also leads to the creation of tenure practices that are amalgamations of administrative pragmatism and various statutory and informal tenure precepts.

When these "second order" institutions fail to resolve the

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[51]J.M. Gastellu, "Le paysan, l'Etat et les secheresses (Nghohé, Sénégal: 1972-1982)," Cahiers des Sciences Humaines 24 no. 1 (1988):122-123.

conflict, the contending parties may find that the dispute enters into a "third order" dispute resolution body - the Departmental Tribunals and sometimes even the Supreme Court. This avenue is lengthy and costly, thus disputants often try to avoid this last option.

The failure to adjudicate successfully land disputes and devise new rules of resource use may result in the end in the outbreak of violence. "Tenure pressure points" exist in many areas around Senegal, simmering areas of unresolved land disputes that can suddenly erupt into explosive violence. The previous section outlined extensively the location of these areas of tension and, indeed, violence.

4. *The Definitional Ambiguity of mise en valeur*

The concept of *mise en valeur* has never been fully defined in Senegal. In principal the community councils define the term with respect to the economic and ecological specificities of a micro-region. Development plans by the community council are to be the mechanism for defining the concept for each and every community council territory. The proposed "*Arrêté Préfectoral fixant les conditions minimales de mise en valeur des terres du domain national*" simply reasserts this precept. While passage of the edict would reinforce the participatory and decentralized intent of the law, implementation hurdles loom ahead.

The definitional ambiguity around the concept of *mise en valeur* has resulted in numerous ecological abuses. The politically powerful Muslim Mouride Brotherhood have considered *mise en valeur* the act of clearing vast acreages and putting the land into peanut production. Few soil conservation techniques are employed and thus soil erosion is extensive. Similarly, several case studies have noted that farmers tend to practice extensive forms of agriculture rather than intensify production on smaller acreages as part of a strategy to maintain access over the largest territory possible.

The concept of *mise en valeur* has been especially contested in high land value areas. One of the ranging arguments today is whether irrigated agriculture along the Senegal river and the Lac de Guiers is more profitable than that of traditional flood recession agriculture. In theory, land now farmed traditionally could be legally ceded to outside entrepreneurs or agribusiness firms on the grounds that the yields from irrigated agriculture are higher than that of flood recessional cultivation of *waalo* lands. But research conducted by the Institute for Development Anthropology, shows that the entire ecosystem employed by riverain populations is more productive than originally thought when one takes into account the off-take of fish, forest

products, and food crops.[52] The most rational form of economic development of flood plain lands may in fact be the maintenance of traditional forms of flood recessional agriculture.

Thus the debate centers around the question, what land use practices constitute *mise en valeur*? In marginal rainfed zones of northern Senegal, is forest product gathering, such as gum arabic collection, considered more or less "productive" than cultivating peanuts? Is land placed in fallow a form of *mise en valeur*? More importantly, what constitutes *mise en valeur* by pastoralist populations? The act of maintaining paths to watering points may delineate the territory used by pastoralists and hence define implicitly a pastoralist form of *mise en valeur*.

5. *Conflictual Pastoralist-Sedentary Relations*

The Senegalese legislative corpus and public policy have generally favored sedentary populations to the expense of pastoralists. The history of relations between Fulbe pastoralists and Wolof cultivators is one characterized by conflicts associated with the expansion of peanut cultivators into the grazing lands of livestock producers. It will always be difficult for pastoralists to protect their rights of access to prime grazing lands so long as the state and donors view field crop cultivation as more profitable than livestock raising.

The legal corpus have rarely served the interests of pastoralist populations. Various pieces of legislation designed to facilitate protection of grasslands against the expansion of sedentary agriculture have remained dormant. Contradictions abound in Senegalese public policy regarding pastoralist interests. As discussed above, a government committee was set up to propose legislation designed to permit the definition of *mise en valeur* by the rural community council. This decree could serve well the interests of pastoralist communities allowing pastures to be considered an economically productive use of the land. Pastoralist communities have tried recently to define *mise en valeur* on their own terms. In the Arrondissement of Barkedji, pastoralists attempted to create their own protected pasture reserves as a way of halting the northward expansion of Mouride peanut farmers. While the rural community councils can in fact allocate land for pasture and forest reserves by using a number of legal tools available through the *Loi Relative aux Communautés Rurales*, the administration has blocked these requests for

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[52]Institute for Development Anthropology. Suivi des Activités du Bassin du Fleuve Sénégal: Rapport Final Intégré. November, 1990.

political reasons.[53] Mouride peanut farmers have successfully argued that peanut production is an economically more viable form of *mise en valeur* than livestock production. This position holds sway due to the considerable political power of the Mouride sect.

6. *Women and Land Tenure*

Considerable debate surrounds the issue of women's access to land. In most Senegalese societies, land has been allocated to women by their husband's family. Traditionally, while remaining in her husband's household, women have been assured land to cultivate. Plots are allocated for life. For example, in Diola women acquire rice lands in the Casamance while Wolof women acquire fields close to the village settlements. Upon divorce the woman looses her rights to the land and must request land from her father or brothers. In the case of death, the land reverts to the husband's family. Fruit trees planted by women in the compound generally belong to the individual. Considerable variation occurs over the question of inheritance of these fruit trees. Islamic inheritance law sometimes prevails and a woman's daughters will inherit a portion of the trees. In other cases, the trees revert to the family of the husband.

The question of women's access to land becomes particularly critical in irrigated farming and gardening. In many cases along the Senegal river women cannot acquire title to the land in irrigated perimeters. But this situation is changing as the ReMAPS study showed in the Mbane case study (Case Study 1, "Mbane, Department of Dagana). Women in the irrigated perimeter are indeed acquiring title to some plots. Problems arise as well when women's associations seek land for gardens. Women's groups have tried to obtain titles to garden plots to protect their capital and labor investments (wells, fencing, fertilizer, trees). In some instances, women's groups have lost their investments to original land owners reclaiming the garden plots. Sometimes their attempts to acquire land from the rural community councils were rejected. This type of land dispute will not be adequately resolved until women gain greater political access to the rural community councils.

The ReMAPS case studies showed that few women are members of the rural community councils yet they are a dynamic element of the rural institutional structure. In the Mbeuleukhé case study in the Department of Linguère (Case Study 2, Mbeuleukhé, Department of Linguère), male respondents noted rather sheepishly, that women pay the annual taxes yet they have no representation on the council. The lack of representation on the

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[53]Oussouby Touré, "Développement pastoral et contraintes foncières dans la zone sahélienne du Sénégal." Centre de Suivie Ecologique, manuscript, juin 1991.

political party slates presented to the rural community council electorate of women in proportion to their numbers and role in rural community life is indicative of the long struggle that still awaits equal participation of women on local governance bodies. However, improvements have been made. In the last elections, women succeeded in gaining some representation on the community councils.

Women's access to land also becomes critical in terms of their rights to forest resources. Women are the principal forest product gatherers in many communities. A wide variety of tree crops are collected year-round and marketed to the towns and cities. Women invest considerable time in gathering various forest products such as *kinkillaba* (*Combretum micranthum*) leaves, cutting small branches for firewood, picking up the seeds of *sump* (*Balanites aegyptiaca*) trees, and collecting tamarind (*Tamarindus indica*) fruit. Women generally use the income from tree crop gathering for household consumption. During the design phases of projects, it must not be forgotten that women must play a central part in defining the rules and enforcement practices regarding the use of trees. In some parts of Senegal, women are establishing firm rights to trees. For instance, ISRA researcher Cheikh Mbacké Ndione reports that Fulbe women in the northern Ferlo are fencing off dense clusters of *jujubier* (*Ziziphus mauritania*). Fulbe women challenged the assumption that men's rights to trees imply exclusive appropriation of the product. In the ReMAPS Fandène case study, the family of the husband possesses the rônier trees, but the wife keeps all revenue from the sale of baskets weaved by the husband from his trees.

7. *Constraints in the Management of the Commons*

The management of the commons is perhaps the most intractable tenure constraint in rural areas. No doubt, in the future, rural communities will develop ways to control the use and distribution of land within the immediate confines of village settlements. In most of the ReMAPS case study sites, valuable commercial lands are subject to highly articulated rights of exclusion. In the Niayes, for instance, the Lebu and Fulbe communities have generally worked out an agreement to prohibit the sale of prime lands used for horticulture. Along the Senegal river, the "waalo" lands subject to flood recessional agriculture will probably remain within the hands of the landed elite.

The resources characterized by poorly articulated tenure regimes are usually the commons. The commons are often "open-access" tenure regimes where few if any rules regulate the way the resource is used. Land is most exploited in these areas and indeed, the tragedy of the commons occurs in these areas. The forests and pasture lands found between villages are often in dispute, a sign that a strong enough authority may not exist to coordinate the use of the resources. Boundaries are not well

defined because the act of definition can spark disputes. This is one of the reasons that villagers hesitate to define the territorial limits or *terroirs* in *aménagement/gestion du terroir villageois* projects. Institutional mechanisms to regulate conflicts over these resources shared by two or more communities are often lacking.

The following chapter will discuss in greater detail the need to establish new locally devised rules for the management of the commons. The rural community council and the technical services of the state can play a key role in helping to construct common property regimes.

D. Conclusions

Chapter II has presented a very brief and cursory overview of the land tenure situation in Senegal based upon a review of the literature and the ReMAPS case studies. The ReMAPS team concludes that tenure security varies greatly from place to place. Security of tenure generally appears to be adequate on land not highly valued for commercial agricultural and speculative purposes. Traditional land tenure practices continue to operate irrespective of the law. Around commercially valuable lands the situation is very different. Traditional land tenure regimes are ceding place to statutory law rooted in the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales*. These lands are the locus of disputes because of the clash between traditional and statutory land allocation norms. In theory, the legal corpus protects the rights of resident populations to the resources upon which they depend for their livelihood. However, land laws have been manipulated to serve the demands of economic interests external to the local communities. This is a major source of tension, and in some cases, violence in rural communities throughout the country.

III. LOCAL INSTITUTIONS, TENURE, AND NATURAL RESOURCE MANAGEMENT

A. Overview

State management of natural resources in the Sahel is one marked by a long record of failures to manage natural resources on a sustainable basis. Throughout the Sahel governmental and non-governmental agencies are experimenting with new approaches to shift some of the resource management powers from the state to local institutions. The *aménagement/gestion du terroir villageois* orientation, currently in vogue in Senegal and other Sahelian countries, encourages the devolution of government authority and control to local level governance institutions and resource user groups. Considerable debate centers around ways to devolve authority to the appropriate level of decision-makers.

Rural institutions play a central function in influencing the evolution of the rules and practices - the tenure regimes - that govern the way natural resources are used. For this reason, rural development agencies must focus attention on the dynamics of rural organizations. Councils of village elders, chiefs, religious figures, local level government officials, and now a wide array of non-governmental associations strongly influence land tenure practices throughout Senegal. This chapter looks at the interactions between the many rural institutions found in the ReMAPS case studies and attempts to categorize the range and functions of the different types of rural institutions.

The ReMAPS study found that a plethora of local institutions affects the use of natural resources in rural communities. For the purposes of this analysis, "local institutions" are those which function at the village level and influence the social and economic life of rural communities. The leadership of a local institution usually resides and makes decisions at the district and village level. Other institutions influence local community affairs, these are often organizations external to the particular milieu studied. Institutions often have the authority to enforce rules regulating the behavior of their members. For this reason, institutions are often defined as a set of working rules that are used to determine who is eligible to make decisions in some arena, what actions are allowed or constrained, which rules will be used to govern actions, what procedures must be followed, what information must be provided to members, and how benefits will be assigned to individuals dependent on the actions of the organization.[54]

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[54]Elinor Orstrom, Governing the Commons: The Evolution of Institutions for Collective Action (New York: Cambridge University Press, 1990):51.

B. Institutions of Resource Management in Rural Senegal

The ReMAPS team invested considerable energies in the often arduous and time consuming process of identifying the functions, strengths, and weaknesses of rural organizations. A variety of techniques were used to determine the institutional make-up of the communities studied. At the outset of each village case study, the teams used "Institutional Venn Diagrams" to identify what village organizations and influential people exist in the particular locale. A gathering is asked to rank the relative importance of institutions or individuals in village affairs. The teams asked the gathered group of informants to identify the functions of the listed village level institutions. After this initial interview, the teams asked through semi-structured interviews further questions about the history and specific activities of the village organizations.

1. *Village Administration*

The ReMAPS teams noted that village affairs are largely administered by traditional social organizations such as the village chief, a council of elders, and religious authorities. As most of the Venn Diagrams of institutional relations show, there are generally two poles of authority within rural communities. The village chief and the heads of lineages generally constitute one set of institutions responsible for land allocation, dispute resolution, and internal village relations. A second pole is constituted by religious bodies surrounding the imam and/or xalif in Islamic villages and the priest in Catholic villages. While religious affairs are largely the purvey of this latter assembly of organizations, the imams and xalifs play a central role in conflict resolution. The Venn Diagram of the village of Dankh Sène represents well this traditional division of authority (Figure 6: Venn Diagram of Village Institutions of Dankh Sène).

In some villages, however, the imam and marabout retain greater power and respect than the village chiefs. This situation is suggested in Pidiro (Figure 7: Venn Diagram of Village Institutions of Pidiro) and in the village of Mbeuleukhé (Figure 8: Venn Diagram of Village Institutions of Mbeuleukhé). In the later case, the xalif of Mbeuleukhé takes on most of the roles of a village chief due to his family's historical function as spiritual advisors to the former "bourba," the preeminent ruler of the former Jolof empire. Within this large village, however, one finds "chefs de quartiers" who administer many of the internal affairs of their particular neighborhood. As one delves deeper into the history of the community, one finds that Mbeuleukhé is really composed of three distinctly different neighborhoods with unique settlement histories.

Figure 6: Venn Diagram of Village Institutions in Dankh Sène

Case Study of Dankh Sène

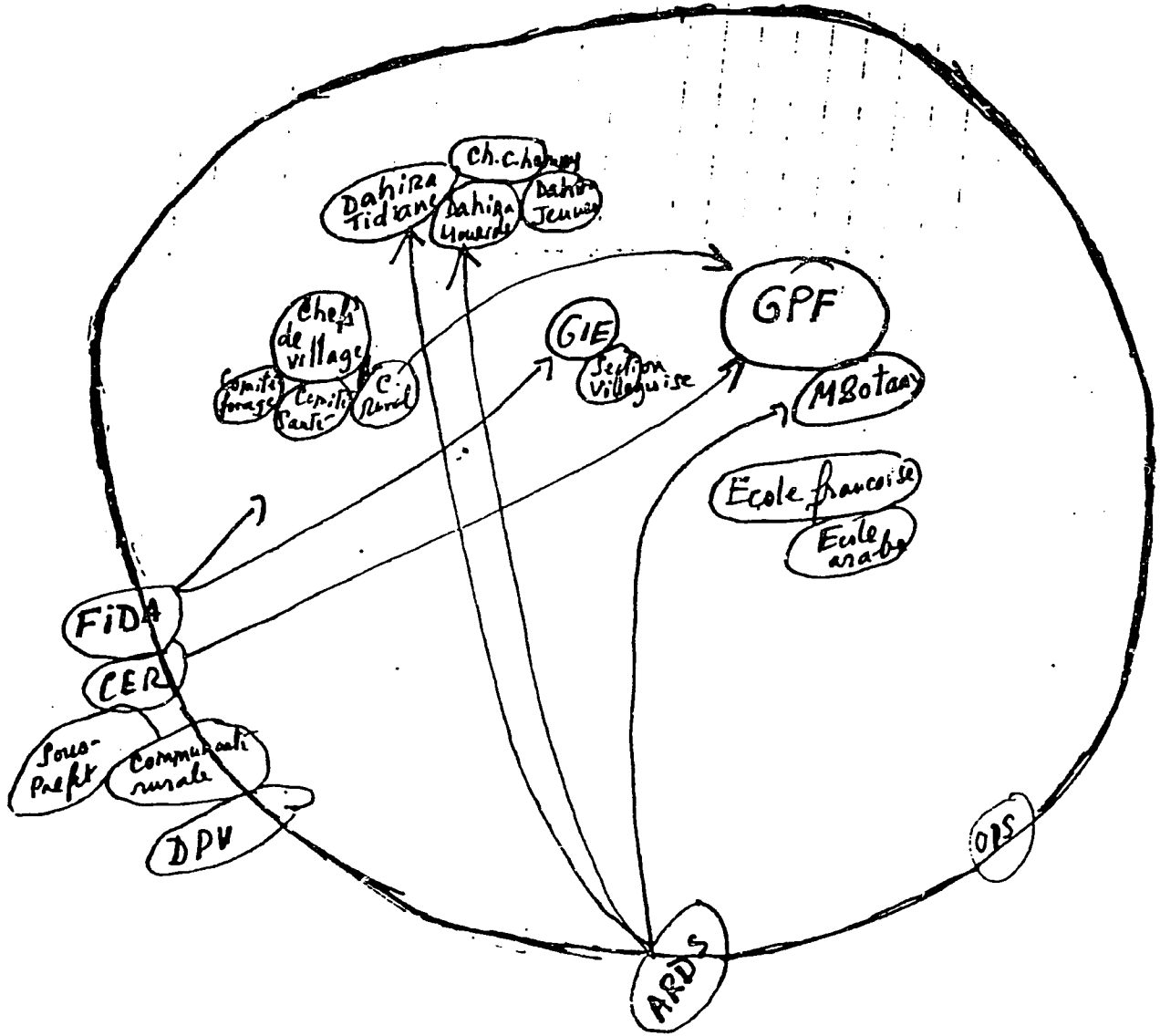


Figure 7: Venn Diagram of Village Institutions of Pidiro

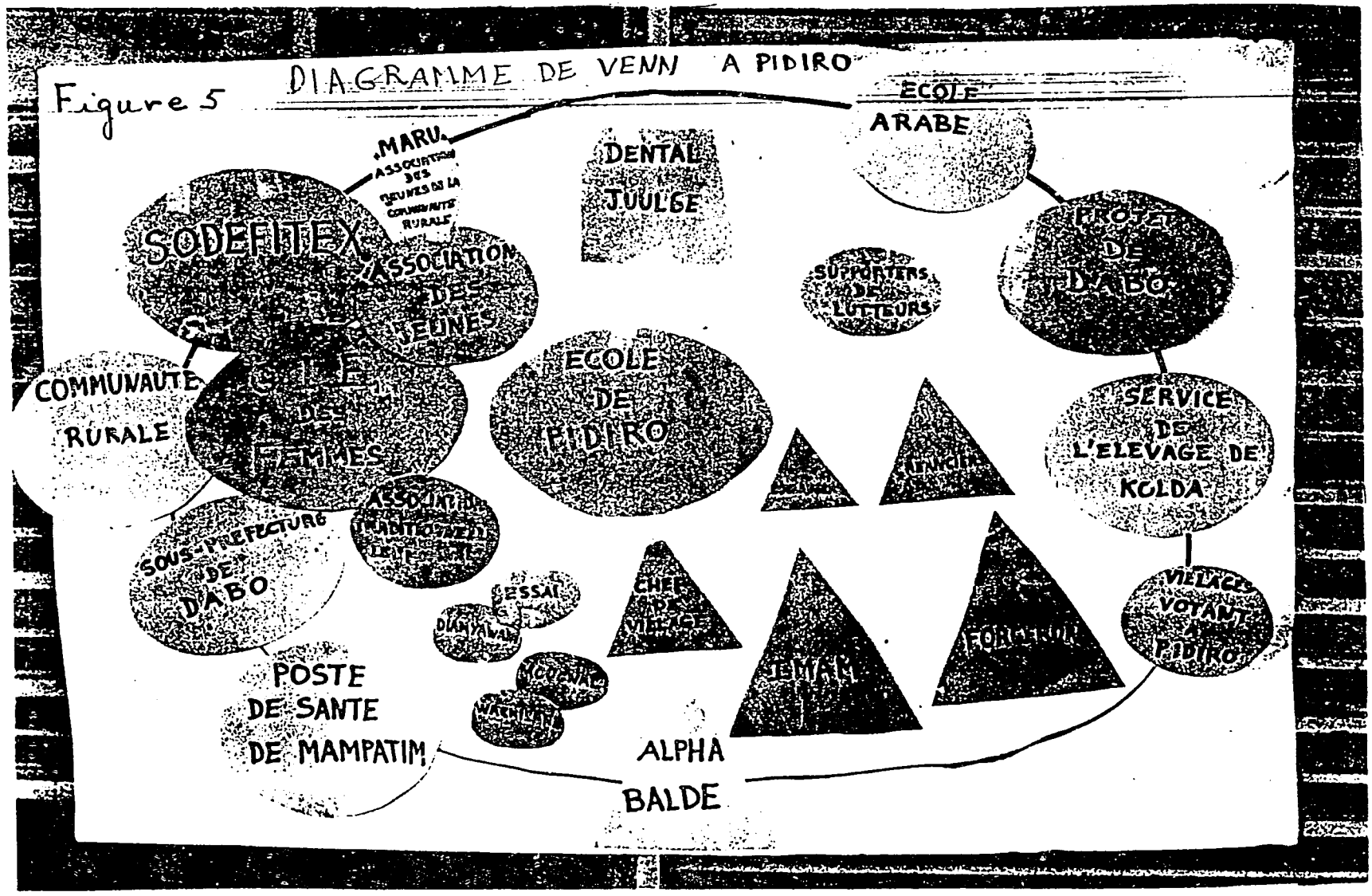
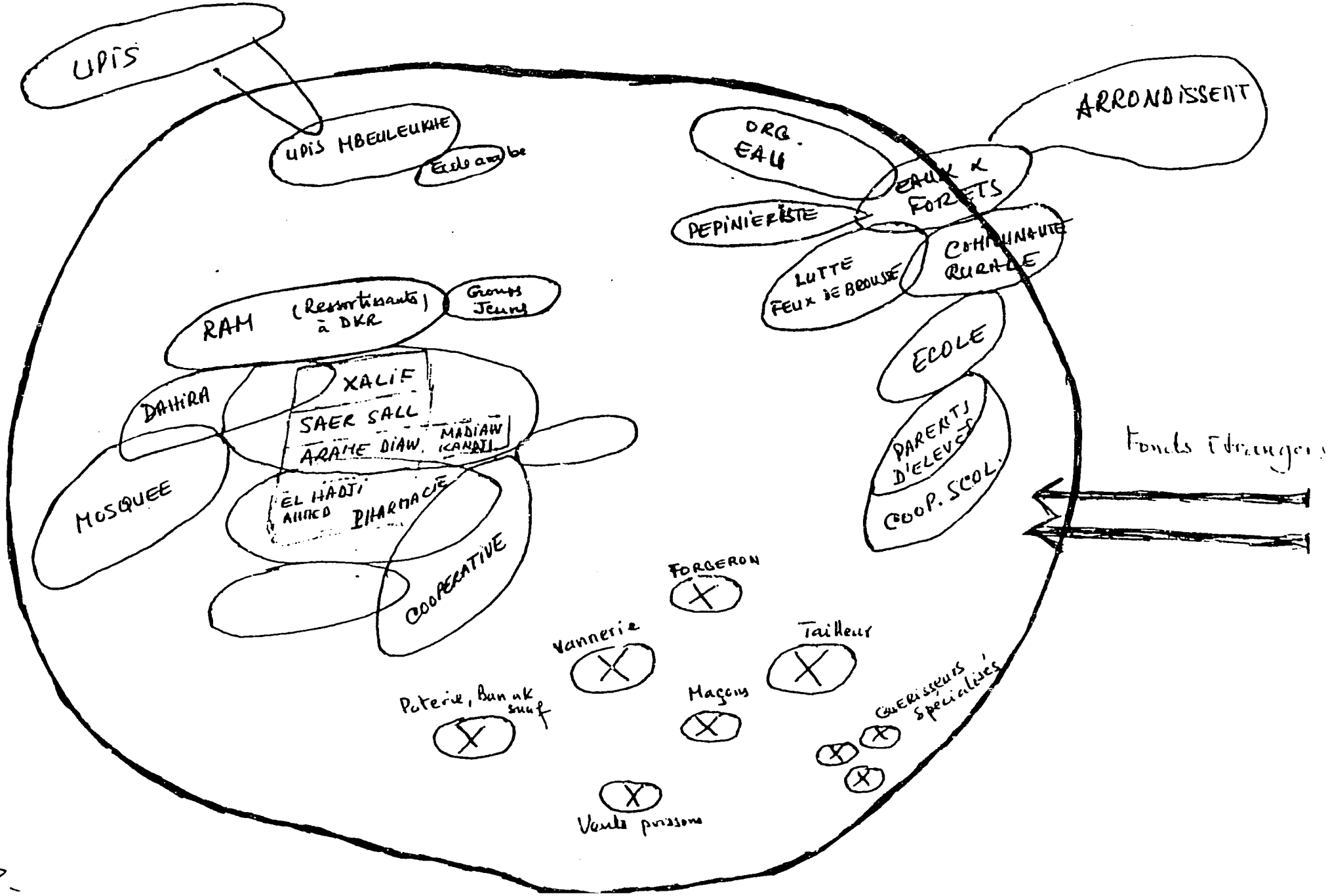


Figure 8: Venn Diagram of Village Institutions of Mbeuleukhé



The institutional structures of rural communities becomes much more complex in villages involved actively in rural development programs. As the Venn Diagrams of institutional relations indicate, there are a remarkably wide range of governmental and non-governmental organizations in the case study sites (See Figure 9: Venn Diagram of Village Institutions of Fandène). The ReMAPS team found that these village development committees are quite ephemeral. When the development organization first enters into a rural community, it works initially with leaders from traditional associations, such as leaders of age groups or heads of dahiras. New committees are formed on the insistence of the external donor, and they often take on the names of these benefactors. Villagers attach much importance in Fandène, for instance, to the Christian Children's Fund "Comité de C.C.F." because the donor finances the village school. The "Comité du Mutuelle" is supported indirectly by the Catholic Church of Fandène and coordinates the village health insurance program permitting nearly free medical service at the Catholic hospital in Thiès. The "Groupement d'Interêt Economique de Mbane" is vital to village agricultural work as its members receive credit from CNCA, the SOCAS, and the SAED (See Figure 10: Village Institutions of Mbane).

As long as the development agency retains an active presence in the community, the institutional structure set up by the project remains in place and often thrives. Village interest is naturally high when projects provide benefits and services truly desired by the majority of the population. Rural communities are fully capable of effective mobilization and sophisticated organization as the need arises. One only has to observe the preparations made for annual religious festivities or the reception of important governmental officials to realize how well communities can generate and dispense funds and plan for complex events. The village level development committees whither away and often disappear when their usefulness to the community declines or when resources from the exterior diminish. While the features of the particular development committee may evaporate, traditional social institutions appear to remain relatively intact, be they religious or secular in origin. These dynamics are well illustrated in the Venn Diagrams.

State institutions, such as the SODEFITEX in Pidiro, or the SONACOS in Dindéfello, offer services needed by the rural communities (eg. credit, market for cash crops, technical advice) (See Figure X: Venn Diagram of Village Institutions of Dindéfello). Villagers invest their time in maintaining the cooperatives required by these parastatal firms. Non-governmental organizations such as ENDA in Fandène or Africare in Niacoulrab are noted as key donors because of the active support

Figure 9: Venn Diagram of Village Institutions of Fandène

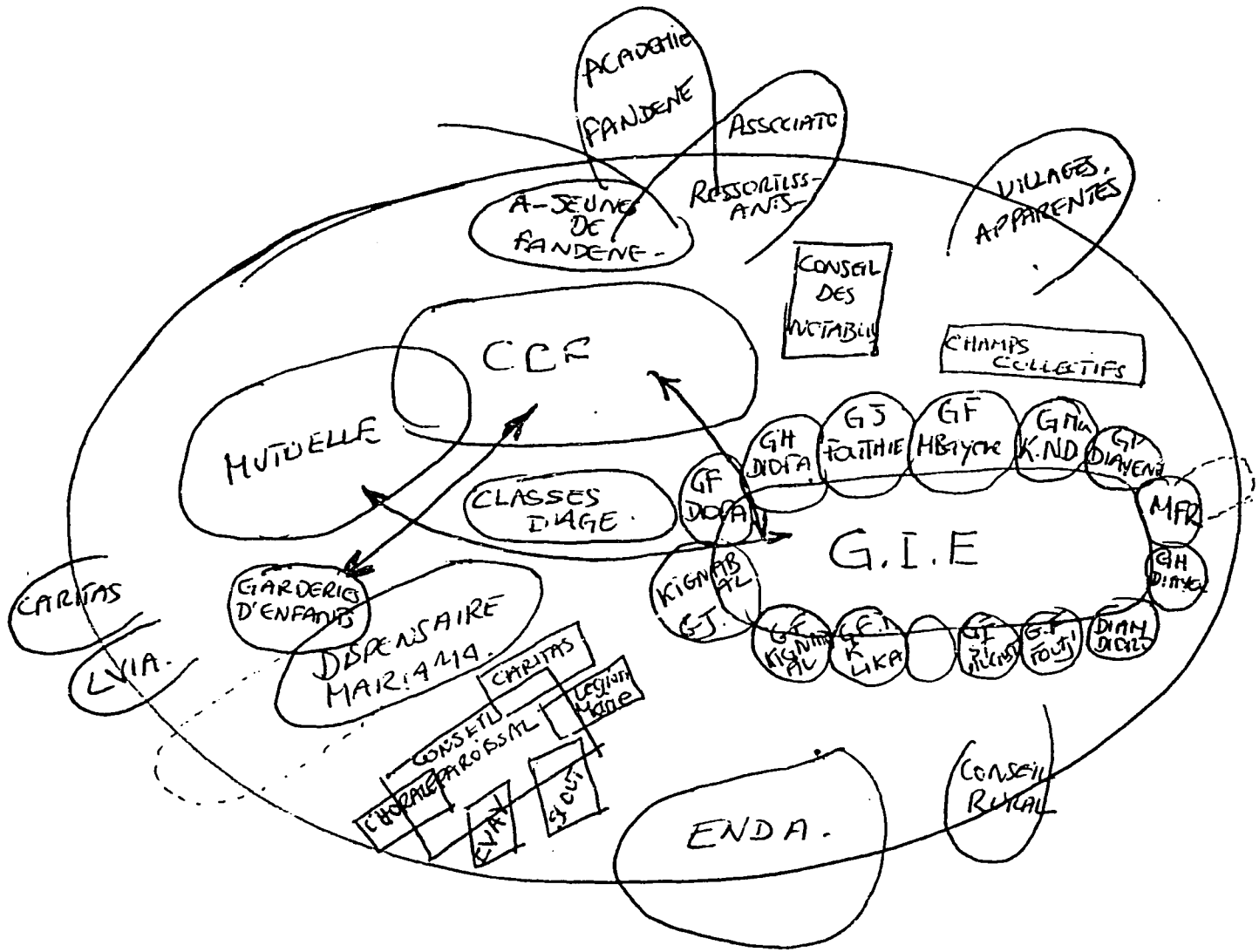
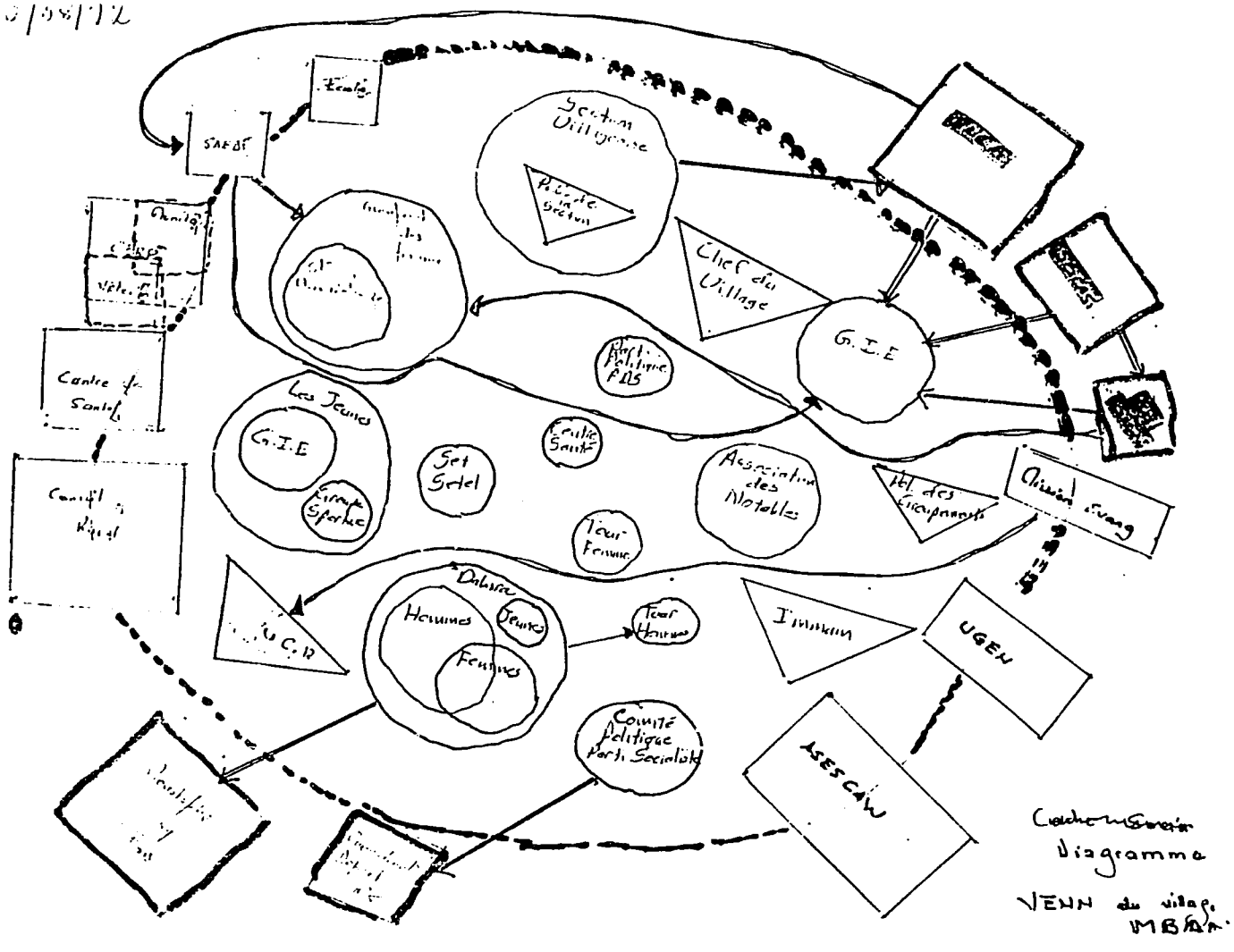


Figure 10: Venn Diagram of Village Institutions of Mbane



they give to village development committees (See Figure 10: Venn Diagram of Village Institutions of Niacoulrab). In contrast, the C.E.R.P. is less functional because it offers relatively few goods and services to the community. Most government extension agencies are not identified in the diagrams by villagers. When asked why, villagers respond that the extension officers no longer come to the villages as in the past. This is explained by the decline in government funding and donor support for government extension services. In most all of the case study villages, the rural community council is listed as a present force in the village, but one of relatively marginal importance. It provides little direct development benefits to the community.

The wide range of development committees creates at times a turbulent political dynamic within villages. Leaders of development committees may compete with traditional authorities for power, prestige, and personal gain. Disputes between heads of development committees may be exacerbated when a donor arrives in the community searching for an institutional mechanism to dispense funds and technical assistance. Political party politics may also enter into the scene at this stage as political leaders try to jockey for advantages by allying themselves with one committee or another. Yet village leaders do succeed remarkably well in reducing divisive competition for access to external aid. The young leaders of the "G.I.E. of Fandène" clearly parallel many of the functions of the village council of elders, yet a good working relationship has been arranged between the two generations. Arrangements are made within extended families so that the interests of the household are represented on each and every village level committee.

Village administration is also strongly affected by the authority of key individuals living in cities or abroad. Alpha Baldé of Pidiro, for instance, is rarely in the village yet he is consulted frequently about village affairs. These wealthy individuals often participate actively in the political, social, and economic life of the home village. They send back money to relatives and friends, offer gifts, provide loans, or invest in small boutiques. During drought years, these influential and wealthy individuals contribute food and money for famine relief. The contributions of marabouts represent a social safety net unequaled by most government or non-governmental relief organization.

Links between urban migrants and the home village are solidified by the creation of associations that gather money for development activities and village emergencies. These urban associations, formed not only in Senegal but also overseas, collect funds from members on a regular basis and send back the remittances for development projects which are designed and administered jointly by the association and village leaders. The Venn Diagrams illustrate this phenomena. The "Association des

Figure 11: Venn Diagram of Village Institutions in Dindéfello

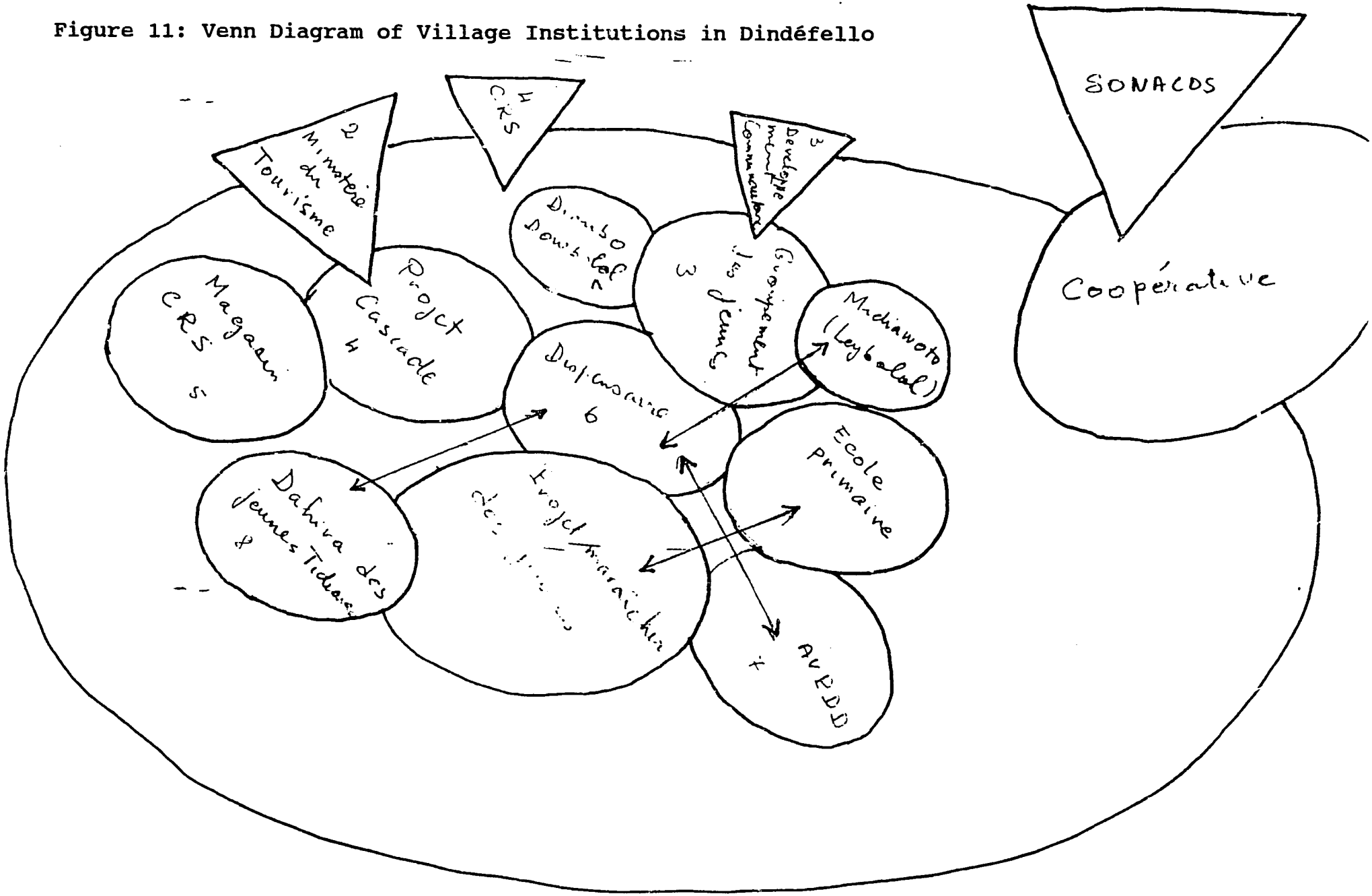
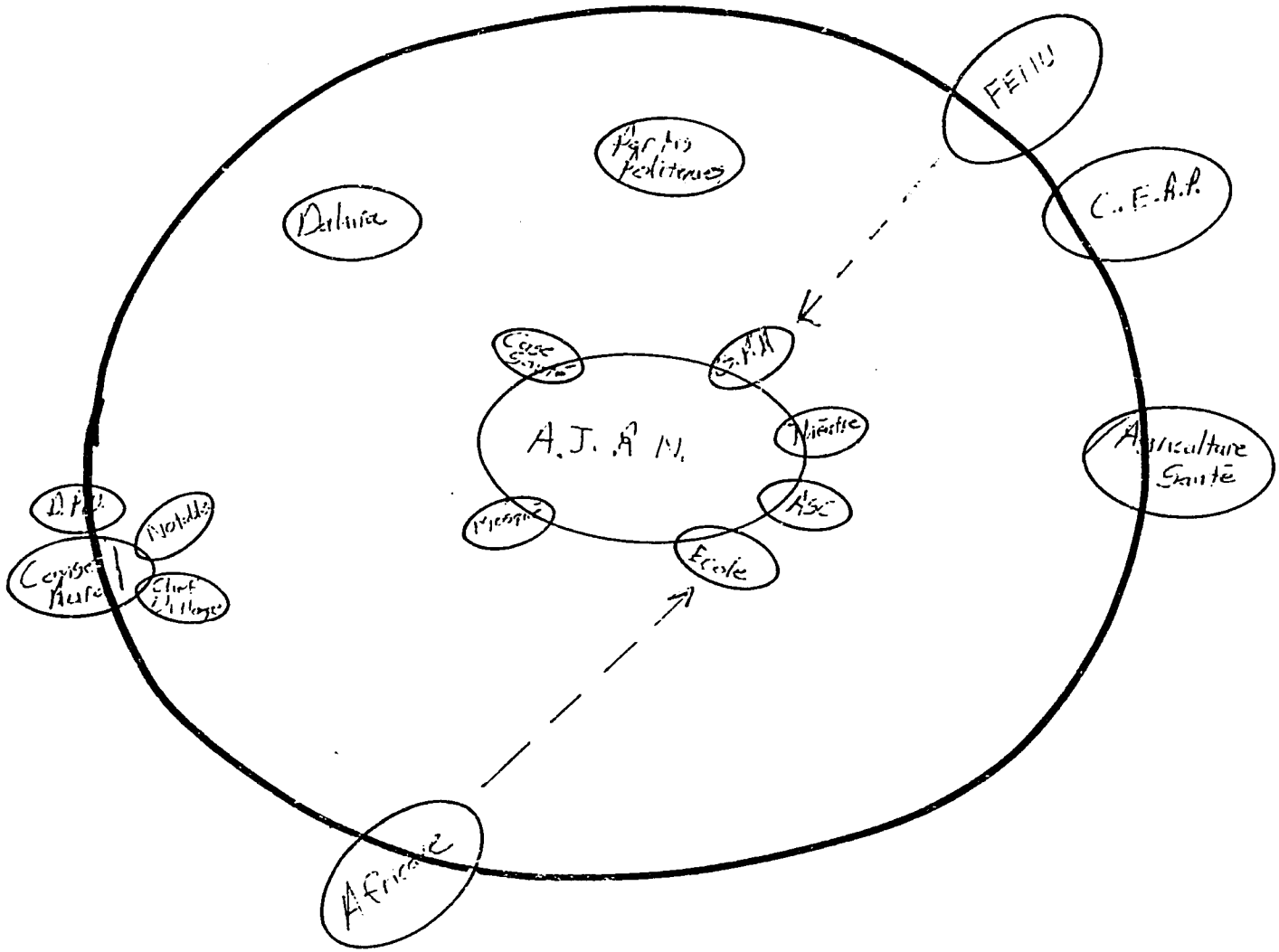


Figure 12: Venn Diagram of Village Institutions of Niacoulrab



CERP: Centre d'Expansion Rurale Polyvalent
DPV: Direction de la Protection des Végétaux
ASC: Association Sportive et Culturelle
FENU: Fonds des Nations pour la Femme
AJRN: Association des Jeunes pour la Renovation de Niacoulrab
GPF: Groupement de Promotion Féminine

Ressortissants de Fandène," the "Ressortissants de Mbeuleukhé," and the "Association des Jeunes pour la Renovation de Niacoulrab" all receive funds from relatives in Dakar and abroad. These associations have become an important element in village affairs because they provide funds without strings attached for infrastructures and programs the village really wants.

2. *The Hierarchy of Decision Making Concerning Resource Management in Rural Communities*

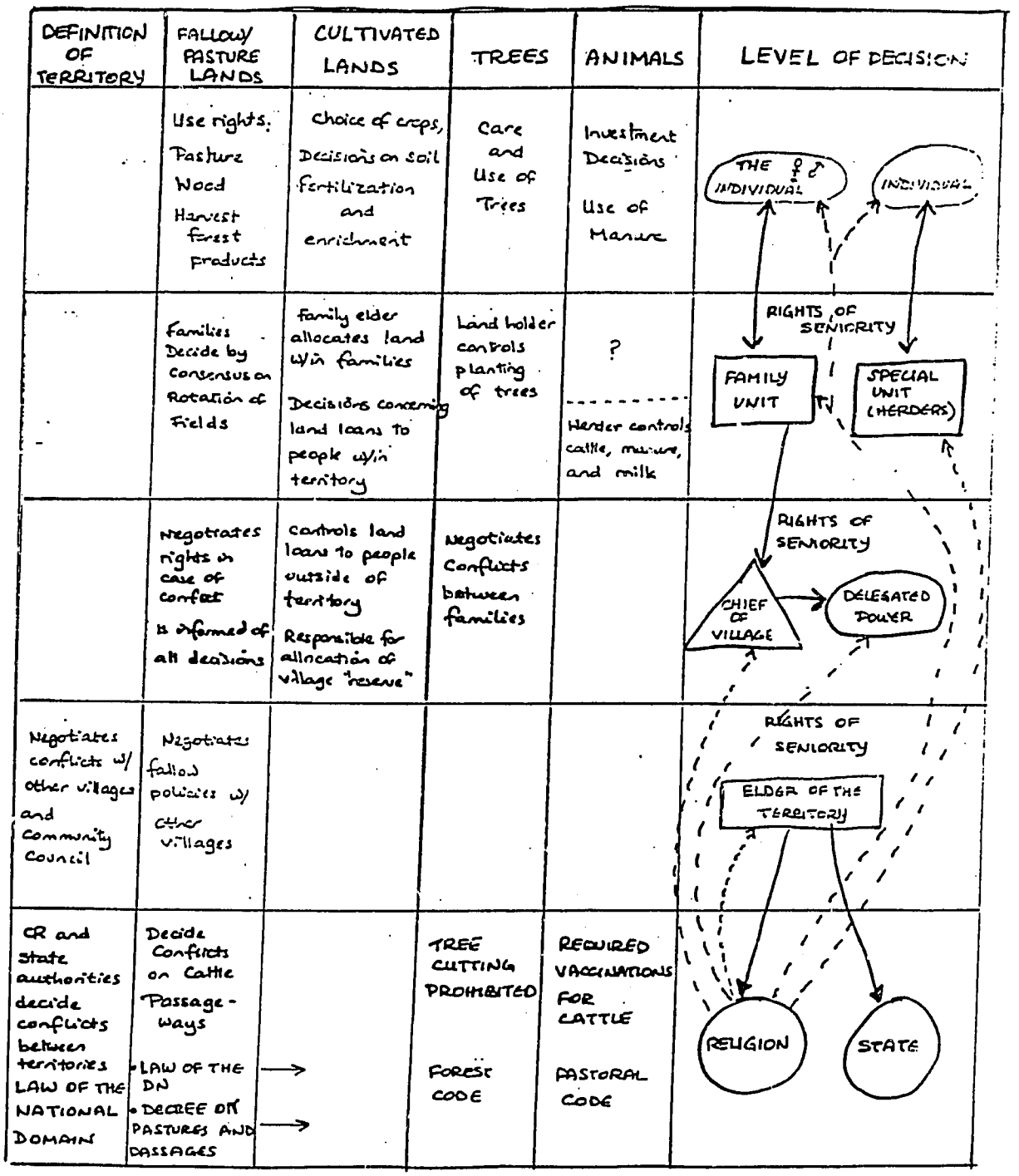
The decisions governing the use of natural resources are determined at many different institutional levels in rural communities. Figure 13, "Natural Resource Management Levels of Decision Making," represents the different layers of decision-making authority often found within a village. As one moves down the hierarchy, one sees that a variety of institutional actors enter into the decision making process. At the base, a large number of resource use decisions are made by individual cultivators regarding fallow periods, the agronomic practices employed in cultivated fields, the use of trees, and the integration of livestock into field crop production. Further down the hierarchy, one perceives the influence of state laws, administrators, religious authorities and development agencies over the use of natural resources.

Natural resource management projects should determine at the outset of a program the role various decision-making bodies play in rural communities. This knowledge is necessary in order to decide how to target project assistance. Program planners must ask a series of questions such as: Through what institutional body should project activities be directed - traditional village administrative bodies, pre-existing development committees, or newly formed organizations designed to suit the needs of the project? Village institutions often establish rules governing how resources are used. Development organizations need to know for planning and evaluation purposes whether the community institutions can create and enforce its own internal rules. Where does the locus of decision-making authority rest in the village? How can a project facilitate the rule-making functions of these village institutions? These questions ought to be answered at the initial stages of project interventions.

1) Individual Resource Management Decisions

Many key decisions concerning investment in and exploitation of natural resources are taken by individuals in the community who manage their own fields and the collection of forest/bush products. Individual choice is exercised in the selection of crops, the use of various types of fertilizers, and the care and utilization of trees. While women in most of the ReMAPS case studies do not possess the right to transfer land use rights to offspring, they do receive their own plots of land from their

Figure 13: Natural Resource Management Levels of Decision Making
Village of Ndam Mor Fademba
Department of Kebemer



husband's family at the time of marriage and retain considerable autonomy over the use of the allocated plots. Women possess considerable individual flexibility in the use of their allocated plots. Thus one cannot assume that men and women utilize the same farming practices, land management options, or receive equally proffered extension advice.

In many of the rural communities studied, the individual contributes labor not only to personal fields but also to family fields. It is thus important to note in rural assessments who controls what type of land in what location. Individuals usually have a wide range of labor obligations to different members of the family and the community. These arrangements should also be noted at the outset of projects in order to understand how land use rights are distributed in the community. In any one village one may find plots controlled and farmed exclusively by young men next to those cultivated by an entire family. In Jola and Mandinka communities, women have very strong rights to lowland rice fields, but at the same time they may cultivate personal upland fields of peanuts but also contribute to the maintenance of family fields of millet. Control over land allocated to women's cooperative gardens may be ambivalent - use rights may not be clearly defined by the land owners. This may introduce a sense of tenure insecurity among the women gardeners.

Individual land use decisions may be influenced by any number of factors. Individuals within rural communities have unequal rights of access to natural resources and thus respond in varied fashions to incentives to invest and conserve natural resources. In the Fandène case study (See Case study no. 3, Fandène, Department of Thies), women who did not have access to good gardening lands in the valleys were little interested in participating in the horticultural plans of the "G.I.E. de Fandène." In contrast, the poorest women depending on the collection and sale of tree products from the "Gol" bushlands were following closely the plans of the G.I.E. with regard to the possible creation by the men of a small protected forest reserve. The men's plans risked undermining the poorest women's income generation possibilities from forest products. In the Dank Sène case study, women were discreetly paying Fulbe men to cut down the branches of *Acacia albida* for desperately needed firewood while at the same time their husbands were trying to find means to preserve the trees in order to increase soil fertility.

It is critically important for rural development organizations to perceive rural communities not as homogenous units, but often communities divided along age, caste/class and gender lines. Differentiated groups of people will not necessarily respond uniformly to the proffered incentives of the development agency. The case study in Dank Sène (Case Study no. 4, Dank Sène, Department of Diourbel) vividly exemplified how the forestry project failed to note the overwhelming interests of the

men in planting *Acacia albida* or "kadd" trees rather than the "seng" or *Acacia seyel* offered by the forestry extension service. The project staff failed at the outset to recognize the severe firewood shortage faced by women and thus the project missed early on an opportunity to work with women to resolve this key constraint.

2) The Extended Family

The heads of extended families exert considerable autonomy over the use of fields cultivated collectively for the benefit of the entire household. In most of the cases studied, the eldest male member of the family plays an important role in determining transfers of land and land use practices of fields farmed collectively. Often one finds that land may be loaned to those living within the village without consultation with the village authorities, but land loaned to those living outside of the village territory must be approved by the chief and elders. The elders might prohibit land borrowers from engaging in certain practices that would lead to land disputes, such as planting trees or investing in physical infrastructures such as digging wells or planting *salane* fences. Conversely, the head of the extended family may require land borrowers to practice soil and water conservation activities as a condition of the loan.

Within most of the communities studied by the ReMAPS team, land owning families have greater tenure security than land borrowing families. Generally, the founding lineages still determine to a great degree land borrowing arrangements irrespective of the *Loi Relative au Domaine National*. In the Fandène case study, only a small handful of families control the entire land holdings of the village. The first settler families of Dindéfello similarly determine borrowing arrangements for all later arrivals. The village chief of the family Diallo controls the lands on the left bank of a river, the Touré family controls those lands on the right bank (See case study no. 6: Dindéfello, Department of Kédegou). Non-residents of the village cannot obtain land without obtaining agreement from the landed families.

The settlement history of individual families determines to a large degree the type of tenurial rights the family may possess. First settler families will generally hold "primary" rights to substantial portions of the village territory. They often exercise the greatest power in deciding how land may be used, though these families are not necessarily the wealthiest members of the community. The ReMAPS team did not usually find a correlation between wealth and land ownership. Wealth, as indicated through "wealth ranking exercises" is often generated by non-farm activities such as trade, employment in cities, or livestock raising. Later arrivals may have obtained gifts of land from the first settlers and thus possess firm rights of occupation. Recently settled migrants may have rather insecure

rights due to the fact that they are given loans of land by the established lineages. As "secondary" rights holders, many prohibitions may be placed by the land owners on what these new arrivals can do with their land.

New arrivals use several techniques to acquire firm rights to land. Marriage of newcomers into the old landed families often results in gifts of land. Long-term residence and good neighborly relations similarly open up possibilities of arranging permanent acquisition of family fields. But other non-traditional mechanisms exist. In the peri-urban areas of the Niayes, the ReMAPS team found that outsiders first consult village elders to purchase land, and then "officialize" the request by passing through the rural community council (See Case Study no. 5, Niacoulrab, Department of Rufisque). The community council is dominated by the major land owning families and thus it regularly accepts the requests.

Rural development agencies must understand fully the settlement history of rural communities before projects are launched. Land borrowing families may not have the same rights to use and manage natural resources as the older landed households. Land owners may prohibit borrowers from planting trees on their upland fields. This practice would impinge, for example, on programs to promote agroforestry or the planting of trees around fields. While the tenurial system is not inflexible, project personnel must address requests for land for public projects to the heads of founding families. Similarly, land use rights can be negotiated, though the focus for negotiation must pass through the elders of the landed families. It is thus necessary to ask question at the outset of projects such as: What families arrived first in the village and hold "primary" rights to land? What families borrow which lands and where? What arrangements govern the loans of land?

3) Traditional Village Level Institutions

Chiefs and Councils of Elders

Village chiefs and councils of elders still exert considerable power over the use of natural resources found within sedentary rural communities. In many cases village chiefs continue to be the mediators between the state and the village community, though sometimes this role is given to the leaders of youth associations. Councils of village elders will sit periodically to devise rules for the use of village resources. Decisions are constantly being made among elders regarding the location and longevity of fallows, the placement of cattle tracks or the dates for tethering livestock. The elders resolve conflicts over field boundaries and conditions of loans for land. The constant dispute resolution process reaffirms the rules governing how land and other resources are used within the

community.

In Pidiro, the village chief ("jaarga") takes an active role in directing village affairs, yet in Fandène it is the young president of the "G.I.E. de Fandène" who is an influential force. In either situation, resource management projects must pass through these two influential individuals. As the ReMAPS team found in the Pidiro case study, village elders can undermine attempts by projects to construct new institutional arrangements to manage forest resources (See case study no. 7: Pidiro: Department of Kolda). In this later case, it appears that the forestry project did not consult and obtain the acquiescence from the elders of proposed program activities. The elders simply organized a tacit boycott of the project. In the Fandène case study, the youths cannot organize village development activities without the approval of the elders, even though the elderly family heads interfere little in the daily activities of the "G.I.E. de Fandène" (See case study no. 3: Fandène, Department of Thies). In this situation, a development agency must consult both decision-making bodies.

The influence of traditional village-level institutions over resource use varies considerably from village to village. Some councils of village elders have implemented highly effective rule-making and enforcement regimes. In these cases, projects should most likely work in close conjunction with these authorities. In other cases, the village chief is ineffectual because of his personality or background and thus other village organizations are more influential. Every village has a unique institutional history and thus one of the first tasks of the development agent is to assess the relative strengths and weaknesses of village organizations.

Age Groups

In most of the villages studied by the ReMAPS team, age groups play an important role in village life. Men's, women's and young people's age groups organize community development activities, raise funds through collective fields for community projects, and organize festive occasions. These groups are quite effective at planning village activities of interest to the community. Often age groups are engaged in village woodlot projects and soil and water conservation initiatives that demand contributions of labor. The village youth of communities near Mataam have organized patrols to protect the remaining tree cover from depredation by non-resident Fulbe woodcutters.[55] Village

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[55]Julie Fischer, "Charcoal Production in the Common Woodlands in the Middle Senegal River Valley: Conflicts over Use Rights." Manuscript. Department of Geography, Michigan State University, 1992.

patrols are viewed with suspicion by the forestry service because they have no legal authority to control forest use. External development projects can play an important role in these cases by constructing collaborative relations between innovative local organizations and national administrative bodies.

Village Development Committees

The ReMAPS team identified a wide range of village development committees. On the whole, very few were involved in long-term environmental protection activities. Village development committees organize short-term projects like the establishment of village woodlots, but this is often stimulated by external donor aid. Since environmental projects are currently in vogue, communities organize to capture the proferred assistance. Non-governmental organizations often play an important intermediary role in linking community groups to the sources of external aid. As will be discussed below, these are rarely sustainable institutional structures.

Important exceptions do exist. The Fandène case study exemplifies how a community may mobilize to protect the resources of the territory from expropriation by outsiders. One of the most interesting autonomous responses to environmental degradation was observed by Jim Seyler during dissertation research. Seyler identified in thirty-six survey villages "comités du surveillance" (forest monitoring and protection committees) engaged in protecting trees against illicit wood cutting. Villagers in Palene, near Bambey, were trying to regenerate 15 hectares of degraded pasture lands. Patrols were organized to restrict cutting in the interior reserve. In 1986 the group obtained from the forestry service and other authorities the right to sanction cutting and grazing in the protected area. The net result was the extremely rapid regeneration of savanna forest less than one kilometer from the village. Surrounding villages have also begun to adopt the practice.[56] Such local initiatives are beginning to be seen throughout Senegal.

Village development committees form to implement a specific activity, such as planting trees in a community woodlot or building a watch catchment device. When the activity is completed, the group moves on to another project. Development agencies attempted to create new resource user groups, such as in the case of Pidiro (Case Study no. 7, "Pidiro, Department of Kolda"). From this example, it appears that the groups coalesce in order to gain proffered project benefits (ie: food aid, cash

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[56]James R. Seyler, "ISRA Research-Extension Linkages and Pre-Extension: Some Suggestions for On-Farm Collaborative Reserach." Report to USAID. nd.

paying labor, fencing materials) but then collapse once the project presence is removed. The Pidiro and Dank Sène case studies showed that the development agencies often tried to impose an agenda and failed from the outset to understand clearly village priorities.

Village development committees rise and fall as a function of the need for sustained collective action. Some organizations have considerable longevity, such as the Mbane irrigation cooperative. While the name may change over time, the group must collaborate together to make irrigated farming work. The investment of time for group meetings and collective work are merited by the returns. Natural resource management projects must consider very carefully what type of project activities should be vested in what type of organization. Short-term, punctual investments of labor may be best suited for a quickly formed village committee. Activities requiring long-term and sustained investments of labor and time must be supported by more stable village institutions. For instance, projects designed to construct rules regulating the use of forest resources within a particular territory will require support of village authorities.

Considerable debate occurs around the question of whether development agencies should support primarily village development committees or whether they should work through traditional village institutions. Often proponents of the first stance argue that village development committees are more democratic and representative of minority interests. The ReMAPS team found that there is no clear cut response to this debate. Sometimes village development committees offer opportunities for marginalized social groups to gain access to development aid which is otherwise captured by a rural elite. The *Section Villageoise* of Mbane, for instance, has permitted access by women to agricultural credit. *Groupements d'Intérêt Economique* have similarly opened up avenues for castes and former slave groups to organize activities together and apply for support from non-governmental and governmental agencies. But in other cases, the village development commitees are hierarchical and non-representative. Traditional village authorities may dominate these structures and block effective participation. Every institution must be looked at on a case by case basis.

Women's Groups

The ReMAPS case studies all encountered active women's groups ranging from the "G.I.E. des Femmes de Pidiro" and the "Groupement de Promotion Féminine of Niacoulrab" to the "Groupement des Femmes" and the women's *dahira* of Mbane. The various types of women's associations often turned out to be the best organized and most effective village organizations. The men of Mbeuleukné sheepishly noted that women lacked political representation on the rural community council, yet women's groups

played a central part in village life. Women's income generating activities, such as gardening, contributed significantly to the payment of annual taxes. Women's groups have been active in providing leadership to community woodlots, the maintenance of village health facilities, millet machine businesses, community gardens, and cooperative rice farming ventures.

The women's groups are some of the most dynamic village level institutions observed by the ReMAPS team. The women's organizations appeared to be better organized and collaborative than men's groups. Natural resource management activities generally were not the primary interest of these groups though women provide much labor to village reforestation activities. While it is now a well worn adage that development projects must try to incorporate women into resource management activities, great care should be taken not to burden women with increased work through natural resource management initiatives. Resource management practices may have great opportunity costs for women if they find themselves relegated to simply watering trees.

The incorporation of women into the design and planning of resource management activities is much more difficult, but not impossible. Projects must simply go to greater lengths to assure that women's perspectives are incorporated into project planning phases. As the ReMAPS case study showed in the Niacoulrab case, a forestry project presupposed that it knew the problems confronted by women whereas in reality its assumptions were far from the truth. The team found that in the Fandène case, women were very interested in such environmental projects as the expansion of gardening in the river valley or the restoration of the "gol" forest.

Inter-Village Rural Associations

The ReMAPS teams did not encounter one of the most interesting institutional phenomena in Senegal - the growth of independent and multi-village farmer organizations. The "G.I.E. de Fandène" comes closest to these emerging organizations. Such federations as the "Amicale du Walo," The Entente de Koumpetoum," the "Entente de Diouloulou," the "Fédération des Associations Paysannes de Louga" have become dynamic actors in the rural development scene.[57] These organizations have taken on many inter-village cooperative roles. The federations of villages have become quite successful at raising funds for community

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[57]For a more complete discussion, consult Giorgio Blundo, "Les Collectivités publiques locales et les organisations locales au Sénégal," (Génève: Association Suisse pour le Service aux Régions et Communes, 1991) and Programme de Recherche-Appui des Associations Paysannes (PRAAP), "Supporting Farmer Associations in Francophone West Africa," March, 1991.

development activities. Generally villages elect delegates to represent the village at a General Assembly. The elected assembly in turn selects an Executive Council to run the association. The associations often hire professional staff to carry out the mandate of the membership. These animators are hired and fired by the Executive Council. They try to facilitate association activities through training members in decision-making procedures, local level planning, and leadership skills.

The multi-village associations encounter many of the same problems of most rural organizations. Associations lack the range of management and technical skills needed to run complex associations and to cope with the influx of donor aid. Leaders struggle to meet the demands of membership for goods and services. Inter-village associations are sometimes lead quite autocratically by only one or two dynamic leaders who do not necessarily maintain a strong base of support within the rural communities. Often too much external donor aid destroys the independence and creativity of the associations. Efforts are made to design projects to meet the priorities of the donors that are currently in vogue and these do not necessarily correspond with the needs of the membership. Sometimes associations appear to be formed out of an interest by one or two dynamic leaders to tap donor funds for not only village development activities but also the nice accoutrements of vehicles, well-paying salaries, and nice office space.

The inter-village federations maintain uneasy relations with state structures ranging from the rural community council to the *sous-préfets* and *préfets*. Often these state institutions are fearful that the federations are taking on functions of government and creating states-within-the-state. The ReMAPS team conducting the case study in Fandène found that the G.I.E. of Fandène was viewed with great suspicion by public authorities. The organization had indeed become a powerful political force that had gained power within the community council in order to block adverse land allocation practices (See Case Study 3, Fandène, Department of Thies). Inter-village federations are indeed countervailing powers to the rural community council. For this reason, tensions often exist between the two bodies.

The inter-village federations are at times involved in natural resource management activities. The "Entente de Koumpetoum," for example, has been engaged in various reforestation and forest management activities for several years.[58] Innovative methods of forest regeneration are being

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[58]For a critique of ecological projects of multi-village associations, see: Paa Ndiengou Sall, "Adéquation entre les options du secteur forestier et les réalistaions des O.N.G. au Sénégal: Queles réponses pour les paysans?" International

tried by this association. Other associations, such as the Association Régionale des Agricultures de Fatick (ARAF) have established good working relations with the Institut Sénégalais de Recherche Agricole (ISRA). Linkages are being constructed to facilitate the testing of new agricultural technologies.

Rural development agencies should continue to support actively the inter-village federations. Care must be taken, however, to not overburden the new and somewhat fragile organizations with administrative restrictions and too much financial assistance. It is important that the external agencies have a good grasp of the institutional dynamics of these associations in order to ferret out those that are indeed representative of membership needs versus those which are smoke screens for personal aspirations of an elite leadership. Development agencies should be very aware of the competitive relations between the rural community council and the multi-village associations. Supporting exclusively one institution over another may deepen rifts within communities.

4) Religious Figures

In every village studied by the ReMAPS teams, it was found that a wide array of religious institutions play a role in resource management. Often religious bodies are the forums for the resolution of conflicts and the determination of new rules affecting resource use. Influential religious leaders frequently influence community actions. As many development workers have found through experience, unless one obtains at least the tacit approval of religious authorities, very little can be accomplished.

The religious organizations of the Islamic brootherhoods and the Catholic church play an important development function. The ReMAPS teams came across little evidence that "dahiras" (groups of Tidiane or Mouride disciples gathered around a religious leader for spiritual guidance) were involved in natural resource management activities. While these groups raised significant amounts of money for both community development purposes and religious festivities, very few were involved in reforestation or forest management activities. The potential exists, however, for development projects to work with these highly organized groups. Environmental education needs to be directed towards the religious community and its leadership should be encouraged to promote ecologically sound land use practices among its membership. Much depends on the ability of project personnel to work with the Islamic religious community of xalifs, imams, and

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Institute for Environment and Development, Programme Réseaux des Zones Arides, document no. 5. juin 1992.

marabouts.[59]

Despite the pervasive influence of the Islamic faith, many cultural norms regarding the use of land and other natural resources continue to be held by animist authorities. Control over the allocation of resources in many Jola societies of the Casamance still rests in the hands of shrine-keepers. By virtue of their powers as elders in the community and relations with spirits, the shrine keepers regulate many relations around the use of land, labor, and crops.[60] In Serer communities near Thies, the *saltigi* is still one of the most powerful authorities. In one recent case study, it was found that the *saltigi* resolves many land conflicts. Sacred trees in Serer and Jola villages are often the places where disputes within the village are resolved.[61] The animist authorities play a very important part in determining how land ought to be used and for this reason, projects should make special efforts to build good rapport with these leaders.

Marabouts

The marabouts in many villages of the Peanut Basin still influence strongly the uses of land. The control over labor exercised by the marabouts affects the cultivation practices of disciples. The marabout may strongly advise cultivators to protect each and every useful tree in his fields or he may instruct the adherents to remove all seedlings and trees to facilitate rapid cultivation. Many Mouride marabouts who are the head of agricultural "daras" serve frequently the same functions as village chiefs because they view themselves as the first settlers in an area and because their disciples cleared the forest for cultivation. In these cases, the marabout plays an important role in deciding fallow periods, whether or not to use mechanization, and the type of soil fertility amendments.

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[59]Islamic views on the environment are well summarized in: Abdou Bakr Ahmed Ba Kader et al. Islamic Principles for the Conservation of the Natural Environment, (International Union for the Conservation of Natural Resources: Gland Switzerland, 1983).

[60]For a full explanation of the power of spirits in resource use and allocation, see: Olga F. Linares, Power, Prayer and Production: The Jola of the Casamance, Senegal (New York: Cambridge University Press, 1992), pp. 13-51.

[61]"Le Foncier et la Gestion des Ressources Naturelles:Une Etude de Case Employant la Métode MARP dans le village de Ndiorokh Ndoutane, Département de Mbour." Land Tenure Center/Institut des Sciences de l'Environnement short-course, July, 1992.

Imam

The Imam of many of the ReMAPS case study villages plays a central role in the resolution of conflicts around land and other natural resources. For example, in Dindéfello, the Imam and the village notables meet each Friday after prayers to resolve conflicts occurring both within the village and between villages (See case study no. 6: "Dindéfello, Department of Kédegou"). This conflict resolution forum plays a very important part in establishing and enforcing rules of resource use. Once a decision is made by the council, regarding a dispute over field boundaries, for example, it holds firm.

5) State Institutions

The ReMAPS team noted the existence of various government organized institutions. Public schools, dispensaries, agricultural cooperatives, forest fire fighting committees, and *Groupements d'Intérêts Economiques* are all in various states of dynamism. As the preceding Venn Diagrams show, considerable variation exists in the functionality of government sponsored organizations. Government sponsored village level organizations form when there are development resources to be captured by the local community, but they disappear when there are no apparent benefits to be gained through the investment of time and energy in collective action.

The many types of state sponsored organizations ranging from cooperatives to the new *Groupements d'Intérêts Economiques* are institutional mechanisms superimposed over village organizations. These groups appear to be formed in order to meet government's need for a clearly defined and legally recognized organization towards which development interventions can be channeled. These organizations rise and fall as a function of changing government priorities. What remains throughout are the foundations of village life - secular traditional groups and religious bodies.

Cooperatives

The New Agricultural Policy of 1984 promoted the creation at the village level of multi-functional cooperative organizations called *sections villageoises*. Sectoral *groupements* were to be created for such collective activities as fishing, forestry, and animal fattening. These cooperatives were envisaged to help the individual producer with the acquisition of inputs, credit, markets, and transportation.

The ReMAPS teams did not find cooperatives in all villages. The few functional cooperatives identified appeared to facilitate the sale of cash crops, disperse agricultural inputs, and provide access to sources of credit. The functions of these cooperatives is illustrated well in the Mbane case study. The *section*

villageois of Mbane is central to the cultivation of rice along the Lac de Guiers. It regroups rice cultivators and arranges for the provision of fertilizer and the sale of rice. A cooperative functions well in Dindéfello, linked to the sale of peanuts to SONACOS. A cooperative exists in Mbeuleukhé, but it does nothing. Agriculture is simply not viable in this drought-prone area of the Region of Louga. From the limited number of villages studied, it appears that the institutional health of cooperatives is intimately associated with agricultural parastatals. Cooperatives are healthy when they can play a useful function in arranging the sale of crops and the provision of inputs, but they falter when there are few external incentives.

Groupements d'Intérêt Economique

The current vogue in many villages studied by the ReMAPS team seems to be the creation of *Groupements d'Intérêt Economiques*. These legally sanctioned groups consist of two or more people formed for a limited period of time to promote economic ventures. G.I.E. may receive credit, engage in economic ventures, yet be exempt from the payment of taxes. G.I.E. are easy to form and register with government. Often villagers are obliged by projects to form a G.I.E. in order to receive project assistance, but others are simply cooperative ventures cast under a new name. While the creation of a G.I.E. facilitates in theory access to credit, G.I.E.'s serve many functions and not always those envisaged by government. Some G.I.E. are simply names given by associations of women who gather together to do collective work. As the villagers of Pidiro noted, the women's G.I.E. is composed of many members of the traditional "mougnal" association. These G.I.E. serve the same role as a *section villageois* of the cooperative movement. In the case of Fandène, the G.I.E. is a multi-functional village governance body different from a small grouping of villagers engaged in collective economic activities.

The G.I.E. are often portrayed as groups capable of managing natural resources such as village forests, pastures, or water points. For instance, the new Forest Code creates the legal possibility that a G.I.E. may be allowed to control a clearly designated forest resource. From a legal standpoint, the establishment of a G.I.E. of forest users may make administrative sense. But is this an artificial arrangement? It is unlikely that such a forest user group will be allowed to function unless it obtains the full cooperation of the traditional village authorities. For this reason, any development agency must work with both a multiple set of institutional actors at the village level.

Projects often try to create new rural institutions and extension structures. Lacking the experience and flexibility in local-level community development programs, these projects often

confront considerable difficulties. For instance, the "Projet d'Aménagement de la Forêt Classée de Dabo" has created an elaborate institutional structure of "Groupements d'Exploitation" and "Groupements de Gestion Forestière" (See Case Study 7, Pidiro: Department of Kolda). Because the project has neither built effective linkages with the community council nor with traditional authorities, it has yet to become an effective institution. Projects may create new resource management institutions which may work for the duration of the project, but it remains to be seen whether they will continue to exist after the termination of project activities.

Political Party Representation

The major political parties of Senegal, the Parti Socialiste (PS) and the Parti Democratique Sénégalais (PDS), were occasionally represented in the communities studied by the ReMAPS teams. In the village of Mbane, for instance, the two political parties are represented in the Venn Diagram of Village Institutions. The P.S. and its various factions were well in place in the small village of Niacoulrab in the Peanut Basin. Yet in other villages, such as Dindéfello, no mention was made of a political party. The political parties are usually considered by the village informants as minor organizations, yet it is clear that party affiliations are often linked to internal village divisions. Like most village organizations, political parties gain importance during national and rural community council elections but then become somewhat dormant until the next elections.

Political parties are not actively involved in natural resource management issues, though the major parties have articulated policy statements on the importance of conserving natural resources. Party politics affect indirectly natural resource management activities at the local level in that village alliances often determine the political composition of the rural community council. Village factions within the major parties may contest vehemently for representation on party slates. Since the community council members are chosen on the basis of a winner-take-all slate, little room exists for the expression of public dissension by minority views. The credibility of the rural community council as a representative body is thus put on the line. This diminishes the possibility for the council to establish rules and regulations governing the use of resources that will be respected by the entire community.

Considerable political power in Senegal rests with the rural populations. The Parti Socialiste depends for its power base on maintaining the support of rural communities. As presidential elections have demonstrated so clearly, the party depends upon rural voter support. For this reason, a wide range of clientele relations are built between the party and rural communities.

Development aid becomes a tool of the poltical machine. Environmental projects are not immune from being used to gather political support by politicians. There are very few ways for development organizations to avoid being used to meet political agendas except to try to maintain neutral positions and seek to serve the broadest possible interests of a community.

Rural Community Council

Outside of the sphere of the village, the community council is noted in most of the case studies as an ever present institution, though of variable utility. Although the rural community council is one of the few institutions capable of taking on a district wide planning and coordination role, especially over resources shared jointly between villages, it is rarely identified as a central development body generating benefits equivalent to those of the various village associations described above.

The functions of the rural community councils are poorly coordinated with other rural institutions. Community councils are marginalized from taking part in decisions affecting the way natural resources are used. This is due in part to the existence of a wide range of parallel village associations, inter-village federations, organized resource user groups, influential religious figures, *Groupements d'Intérêt Economique*, and non-governmental development organizations. These institutions are rapidly forming and are successfully competing for authority with community councils.

Village level institutions and inter-village federations often respond more adequately to the preoccupations of membership than imposed external structures like cooperatives or rural community councils. Since they are engaged in productive economic activities, village-level institutions hold considerable authority and respect in the eyes of local populations. The flexible decision-making structure within these groups often permits greater consensus building.

The rural community councils investigated in the ReMAPS case studies intervened to varying degrees in land allocation. Charges are frequently launched against the rural community council that powerful external economic interests are able to manipulate the council in order to gain access to land. The ReMAPS team did indeed come across questionable land allocation practices in the case studies in Fandène (Case Study no. 3, Fandène, Department of Thiès) and Niacoulrab (Case Study no. 5, Department of Rufisque). In both cases land speculation was developing over land coveted by commercial and private interests from Dakar. Various techniques were used by the external interests to buy off community council members. The sale of land is leading to considerable dissension within the community.

To the surprise of the ReMAPS teams, opposition to these practices has grown quickly and factions within the community are responding to the land alienation trends. In Fandène the G.I.E. blocked land allocations to external commercial and political interests by participating actively in recent council elections and voting into office enough members to halt all land transfers. In Niacoulrab the youth of the village are developing strategies to halt the illegal sale of village lands to Dakar residents. One of these is to try to elect community council leaders sympathetic to the concerns of the youth fearful of permanently loosing access to village lands. These examples suggest to the ReMAPS team that institutional maturity is emerging as citizens begin to perceive how they can bring about change in state institutions like the rural community councils.

The proliferation of organizations involved in village level development activities challenges the development functions of the community council. As village development organizations acquire greater skill and experience at implementing development projects, they will invariably begin to enter into the tenure domain which defines the "bundle of rights" regulating the use of natural resources. Effective village organizations will try to set up rules regulating how particular resources are used or become more involved in enforcing customary norms of resource conservation. These initiatives will not only compete with the rural community council land allocation functions, but also with the powers of traditional village structures.

IV. DECENTRALIZATION, THE RURAL COMMUNITY COUNCIL AND NATURAL RESOURCE MANAGEMENT

The ReMAPS team identified in the previous chapter the wide range of institutions involved in resource management in rural Senegal. This chapter explores the role of the rural community councils in relation to other resource management institutions. It argues that the Senegalese government and donor agencies should work together to promote a legal framework that facilitates the emergence of local level rule-making governing the use of natural resources. The ReMAPS team concluded that donor and government development agencies should place a programmatic priority on institutional capacity building. Although sustainable agricultural technologies largely exist to protect and rehabilitate natural resources, farmers often have difficulty incorporating sustainable agricultural technologies into their farming systems because of a lack of institutional incentives. In many cases both farmers and communities-at-large do not have enough security of tenure to merit the risks entailed in investing labor in various soil and water conservation practices. As discussed previously, local communities may be unable to control the exploitation of the resources upon which they depend from exploitation by non-residents. The rural community councils can play a critically important function in increasing the power of local communities to protect their territorial interests.

A. Devolution, Legal Frameworks and the Management of Natural Resources

Natural resource management policy in the Sahel currently encourages decentralized management of natural resources. The proponents of the *Aménagement des terroirs villageois/gestion des terroirs villageois* approach advocate the devolution of resource management control to local institutions. This entails a process of granting appropriate local institutions the legal authority and tenure rights to control the use of land and natural resources on which the community depends for its livelihood. Devolution of resource management power is not a straightforward process because not all institutions have equal expertise in controlling the use of resources.

Government must be realistic about what local institutions can and cannot do. Devolution of power and decentralization of administrative services must not become an excuse for central government and donors to withdraw support to rural areas. Rather the government, with the support of donor agencies, needs to provide various development services to its constituencies and, more importantly, the government will need to create an "enabling" environment. Such an "enabling environment" varies

from place to place.

Decentralization coupled with the devolution of state control over natural resources to local institutions implies that the state:

- Provides legal recognition to local institutions (state organized as well as village) to function as autonomous but coordinated bodies;

- Grants local residents the legal powers necessary for devising rules and negotiated arrangements delineating use-rights of natural resources by non-residents;

- Devises jointly with resources user groups appropriate systems of local-level rule enforcement;

- Promotes competent and representative community leadership of different groups;

- Facilitates the preparation and implementation of local community land-use plans with due regard to traditional land-use rules and institutions;

- Provides relevant knowledge, technology, and resource management methods to the local community;

- Provides channels of communication between local institutions and central government.[62]

The state can foster an "enabling" environment by increasing the capacity of local institutions to plan and implement programs and projects benefitting the local community. In Senegal, many elements of an enabling environment are well in place.

The intent of the 1984 New Agricultural Policy and the land laws in Senegal is to promote local level control of natural resources. Through the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* the legal corpus exists to permit local resource user groups, though the aegis of the rural community council, to function as autonomous yet coordinated bodies. Yet in practice village communities have little power to legislate locally due to the preponderant influence of the administration. State interference in local affairs weakens community initiatives. For example, community councils are mandated to prepare local community land-use plans, yet this

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[62]These conditions are discussed in greater detail by Trond Vedeld, "Local Institution-Building and Resource Management in the West African Sahel," Forum for Development Studies. no. 1 (1992):23-51.

exercise was never allowed to become fully participatory. Some development projects now promote village level development plans but plans are not necessarily coordinated between villages. The mechanisms exist to transfer knowledge from the state extension services (ie: CERP and ISRA) to local communities, but these avenues function poorly due to numerous administrative and financial problems. The rural community council structure is one important channel of communication between local institutions and central government. Despite weaknesses, the voices of the people are somewhat expressed through voting for council members and the continual contacts between the administration and council leadership.

B. The Role of the Rural Community Council in Natural Resource Management at the District Level

The rural community council can play a central role in building the institutional incentive structure for the adoption and emergence of sustainable resource use practices. Despite the limited impact of the community council, as described in the previous chapter, the institution has an important though currently underestimated function in natural resource management. One of the first priorities of government is to clarify the functions of the rural community council in relation to the multiplicity of institutions currently involved in environmental projects.

1. *Linkage Between State and Local Communities*

Democratic states consist of many institutional linkages between the administration and the populace. In most countries there are assemblies that legislate rules regulating the actions of local communities. In Senegal, the rural community council serves the role of linking, in a legally recognized fashion, the central state with the multitude of small and scattered villages. The rural community council is the democratic institution the closest to the grassroots granted the authority to enact local level legislation. It is potentially the voice of the people as expressed through local elections for council members. Admittedly, the full scope of the rural community council has not been met in many instances. Despite its weaknesses, the rural community councils will, most likely, remain a permanent fixture of Senegalese society. The current political discourse focuses on ways to improve the function of the council, rather than on its abolition.

The government and donor community should seek to increase the capacity of the rural community councils to carry out its functions rather than abolish the structure. In any democratic society it takes considerable time for representative institutions to grow and mature. Sustainable natural resource management depends upon the existence of respected local

institutions that can craft legislation meeting local needs. These are not constructed overnight. Unless public acceptance is built for self-imposed legislation regulating the actions of a populace, rural communities will resist and undermine the laws of the state. Rather than attempt to construct new representative bodies, both the Senegalese state and the donor community should seek to work through the rural community councils.

2. *The Institutional Gap: Planning Coordination Among Villages*

The ReMAPS team argues that efforts should be directed towards increasing the capacity of the rural community council to coordinate local level development initiatives, especially at the inter-village level. An institutional vacuum often exists of organizations capable of bringing villages together to plan joint use of natural resources. While individual villages often have considerable capacities to devise and enforce rules governing how resources are used within its own territories, difficulties are encountered in controlling the use of forest, pasture, and water resources shared jointly by several villages.

The council can work with the development organizations working within its district to avoid duplication of services and coordinate the activities of both state and non-governmental organizations. Development agencies should be required by law to inform the community council of the types and locations of development projects to be established within the district.

Investment of development resources tends to coalesce around politically and economically strong growth centers while peripheral areas gain little. The community council can try to assure equitable development throughout a district. Through tax revenues and other sources of financing, the community council can try to re-equilibrate district-level provision of public services (eg. wells, markets, schools).

3. *Community Council Legislation and the Management of the Commons*

The ReMAPS team argues that the rural community councils should become a mechanism that allows rural communities to legislate and enforce rules governing how resources are used. The case studies have shown that rural communities generally lack the authority to legislate locally, not because of the non-existance of a legal foundation, but because the administration blocks local initiatives. The full potentiality of the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* has not yet unfolded because the administrative bodies of Senegalese government do not yet let community councils carry out their functions. Donor development organizations can encourage the central government to put in place mechanisms to increase the

rule-making functions of the rural community councils.

The rural community council can play a very important role in managing the commons like forests, pastures, cattle tracks, and water points. Democratically elected members representing district-level interest groups can help build consensus around the use of these shared resources. The rule-making and enforcement powers of the community council are critical ingredients in managing shared natural resources. This capacity for local-level rule-making needs to be increased to fill a vacuum left by state technical services and traditional governance institutions. As financial resources decline to government agencies responsible for enforcing laws (eg. the administration and the technical services like the Forestry Service), some alternative must be found to fill the gap.

The findings of the REMAPS study indicate that rural communities will be reluctant to give community councils the authority to allocate and distribute land. Traditional lineages or well-placed private landowners will probably continue to allocate and distribute land. For this reason, public policy should <u>not</u> take an active stance in enforcing the land allocation provisions of the *Loi Relative au Domaine National* <u>unless</u> so requested by the concerned communities themselves. When there exists a community request, as in the case of villages along the Senegal river valley or the coastal Niayes, the state can help to institute measures to provide greater tenure security, such as a viable land registration and titling system. But this should be implemented only on a case by case basis.

The role of the rural community councils should thus be geared toward the management of the commons rather than toward the allocation of individual plots of land. In the agro-pastoral and pastoral zones of northern Senegal, the community councils could play an important role in managing common property resources such as deep boreholes. The council could be a forum for facilitating discussion among borehole management committees. These forums could serve as the focal point for determining rules governing the use of water. The rural community council could help pastoralist user groups answer questions regarding who and how much should be paid for water. Or, should a water management committee in the district have the authority to exclude non-resident users from exploiting grasslands and water points?

Similarly, the rural community council could be granted the authority under the provisions of the Forest Code to manage a specified forest reserve. In collaboration with the forestry service, the council could define a series of rules regulating the use of forest resources by surrounding communities. The council would bring together the villages surrounding a forest reserve to devise joint rules of use. The forestry service and the council would then devise with the villagers joint

enforcement measures. Coordinated inter-village actions are needed to devise schemes to manage the use of water between up-stream and down-stream users, such as in the case of the Dindéfello waterfall (See Case Study no. 6 (Dindéfello, Department of Kolda). In this case, upstream water pollution deteriorates the drinking water of downstream users and destroys the unique ecological habitat upon which a nascent tourist industry is being built.

4. *Resource Planning and Development Plans*

The rural community council should be the forum where the long-term development priorities of a district are discussed and articulated through district level development plans. These district level development plans should be the result of a village level planning process. Rural community councils should not be engaged in planning and implementing projects that fall within the purvey of villages. Individual villages should implement their own village development plans and programs, yet these should be approved by the rural community council. The council could encourage villages within its district to devise locally appropriate rules regulating the use of resources. Such village rules might pertain to restrictions on cutting of live trees, the location of cattle tracks, or the placement of fallows. In effect, the village rules would be backed up by the authority of the community council and publicized throughout a district.

The Participatory Rural Appraisal (PRA) planning tools can be very usefully applied by such organizations as rural community councils to assess the situation of the particular district and to create a participatory planning process. Several Senegalese institutions now have considerable experience in using PRA as a planning tool. The Ecole Nationale d'Economie Appliqué and the Ford Foundation/IDRC financed project "PRAAP" has used on many occasions PRA to devise commmunity level plans. The Senegalese forestry service now has a cadre of agents who are also using these techniques to plan community forestry activities. Several U.S. non-governmental and academic institutions have used PRA extensively in preparing community level resource management plans. World Resources Institute and Clark University have extensive experience in this domain. The planning "technology" now exists to facilitate participatory involvement in creating village and community council development plans.

Approval of village development plans by a higher authority is necessary in order to avoid conflictual relations between neighboring villages. For example, one could foresee that Village A could devise a development plan that prohibits the collection of firewood by neighboring Village B. A severe dispute could arise between the two villages. The council would

intervene to help negotiate a mutually beneficial arrangement.

The rural community council should retain its powers to allocate and reallocate land in the interests of the entire community. The community council currently holds the authority to define what constitutes *mise en valeur*. Through legislative changes made at the national level, the state should require rural community councils to include in the definition of *mise en valeur* an ecological caveat. For instance, the person requiring an allocation of land might be obligated by the community council to plant a certain amount of trees per hectare, establish windbreaks, and avoid the removal of economically useful trees.

5. *Dispute Resolution and the Rural Community Council*

Throughout Senegal, the rural community council plays a central role in the resolution of disputes over land and other resources. Disputes are often taken to the community council long before they reach the administration or the court system. The community council can play a central role in mediating conflicts that are bound to arise as the "gestion/aménagement du terroir villageoise" approach gains acceptance. Some type of respected institutional coordinating body is necessary to mediate inter-village conflicts and to develop new rules of the game to resolve the tension points.

As discussed in the previous chapter, the process of resolving disputes around natural resources creates new resource tenure arrangements, or rules governing how resources within the district are to be exploited. Over time, one will see through dispute resolution mechanisms the emergence of resource-use rules unique to particular districts. This will create, in effect, a multiplicity of tenure systems adapted to the unique socio-economic and ecological conditions of a district.

6. *Community Council Facilitation, Not Project Planning*

The rural community councils <u>cannot</u> and <u>ought not</u> be directly involved in managing productive income generating activities. Experience has shown that socially heterogenous committees do not bode well for the successful implementation of commercial activities. Individuals or tightly knit small groups are much more efficient at designing and implementing livestock fattening projects, fruit tree orchards, or reforestation activities. Yet, this does not mean that rural community councils should avoid looking for ways to increase tax revenues. For example, the community council of Sangalkam taxes the trucks that go out to the Lac de Rose to transport salt. The community uses these funds to pay for the maintenance of the dirt road around the lake serving the salt collectors (See Case Study 5: Niacoulrab, Department of Rufisque). As discussed in further

detail in the next chapter, the community councils might tax development projects working in the district a certain percentage and then use these funds for various community activities.

The village is the institutional unit to which economically productive investments should be directed. Technical programs to promote reforestation, for example, should continue to work primarily with village level institutions and households. Non-governmental organizations play a key role in the implementation of development activities at the village level. The initiatives by USAID/Senegal and other donors to link non-governmental donor agencies with grassroots village groups should continue. These organizations meet locally defined needs to diversify survival strategies in a flexible and creative fashion. Large donors with millions of dollars to spend in short periods of time do not have the administrative capacity to work at the village level on a day-by-day basis. They must continue to work through a wide variety of "intermediary" organizations.

C. Institutional Limitations of the Rural Community Councils

Both the literature review and the field research conducted by the ReMAPS team indicates that rural community councils have failed to carry out many of their legislated functions. Despite the great potential of the organization, as described above, the community councils have thus far very rarely interceded in the environmental domain. Numerous reasons are cited for the institutional weaknesses of the community council structure. These are listed below.

1. *Non-Representation of Minority Voices in the Election of Community Council Leadership*

The electoral system may generate mediocre community council leadership. Candidates are selected by a winner-take-all party slate that gives a single party total representation in a council district. The party list system generates a candidate slate constituted of members who meet political considerations rather than leadership qualities. The choice of candidates presented to the voting public reflect the criteria set down by the party in power rather than qualities of dynamic and honest leadership. Marginalized social groups (ie: women, casted groups, ex-servile groups, ethnic minorities, or youth) are generally unable to stand for election. When they do, they are sometimes the lackeys of the local power elite.

The electoral reform debate in Senegal has not brought about significant reforms in the election of rural community councilors. Proponents of greater democratization argue that political parties should not be allowed to field candidates in the community council elections. Instead, some argue that a popular vote be simply taken of the most eligible and respected

candidates in the district.

The critique hides the complexity of the local political situation. There is often much manoeuvering that occurs within the party over the choice of council candidates for the slate. The political party may indeed choose a slate based on considerable compromises between various interest groups. The existence of factions within the political parties reflect the deep divisions that run within rural communities; thus the slates often mirror the struggle between different social and ethnic groups within a community. "Politicos" with little popular support in the council district may indeed be chosen, but this may reflect the need to choose compromise candidates.

The donor community can do little to make the community council election process more open and representative except to encourage debate around electoral reforms at the council level. The question should be centered around ways to increase the quality of candidates placed before the electorate. Donors can provide financial support for conferences and workshops on the subject, drafting of new legislation, and pilot testing of mechanisms.

2. *The Opportunity Costs of Community Council Membership*

The political system may not generate the most qualified leadership because there are few incentives for being a community council member. The selected members of party slates pay high opportunity costs for participation on the community council. Considerable time and expense is required to travel to attend long meetings, receive dignitaries, resolve disputes, and review land allocation requests. Council members (outside of the president and vice-president) receive neither diem nor reimbursement of council related expenses. Often travel to the community council headquarters involves overnight travel and lodging, all which incur expenses. Thus participation on the council can detract from other income generating activities. Highly respected though less well off women and men simply may not be able to afford political activities at the level of the community council.

Political decisions of great importance to rural communities may often be made at the village level by other institutions such as the religious dahiras, rural associations, or traditional age groups. Village-level institutions may have at their disposal more financial resources and decision making powers than the community council. For this reason, strong leadership may gravitate towards these organizations. A dynamic village leader, for example, may have more chances of influencing and benefitting from the village development projects sponsored by external donors than participation in long meetings devoted to the

allocation the meager financial resources of the community councils.

3. *Inadequate Training of Council Leaders*

Leaders of the rural community councils have received little training in the following areas: personnel management, legislative processes and financial management, participatory planning techniques, legal education, project planning, or participatory evaluation. Following council elections new members rarely receive training either from the Service de Formation of the Ministry of Interior or the *préfets* and *sous-préfets*. While the complaint is often made by administrators that community council members act like the colonial "*chef de canton*," the rejoinder is that the council members may not be adequately exposed to an alternative leadership style.

As most of the ReMAPS case studies indicated, council members are only vaguely aware of their duties and rights. As one president of a community council stated to the ReMAPS team, "I am completely ill-equipped for my tasks." Written materials explaining the role of the counsellor are virtually non-existent.[63] Key legislative texts are not only hard to locate in French, but are nearly non-existent in local languages.

The difficulties community council members confront in managing budgets, administrative procedures and accounting requirements have grown more acute. In the past, council budgets were managed by the *sous-préfet*. In October 1990, this arrangement was changed when the government granted community council presidents the authority to manage their own budgets.[64] While council members hailed the government's legislative act, they also recognized that many of their members lacked proper management and accounting skills. As a result, the

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[63]Educational texts do exist, but distribution is limited. For example, see: République du Sénégal. Ministère de l'Intérieur. Secrétariat Exécutif aux Actions des Centres d'Expansion Rurale. Guide de la Planification du Développement dans les Communautés Rurales. Octobre, 1988; République du Sénégal. Ministère de l'Intérieur. Secrétariat d'Etat à la Décentralisation. Guide Pratique de Conseiller Rural. Dakar, 1984.

[64]This new legislation states that "*le président du conseil rural est l'ordonnateur du budget de la communauté rurale... A ce titre, il est chargé ...de préparer et proposer le budget et d'ordonnancer les dépenses, de gérer les revenus de la communauté rurale... de diriger les travaux...de passer selon les mêmes règles des actes de vente...*" Loi no. 90-37 de 8 octobre 1990, Article 56.

administration still retains most of the control over the budget. Training programs in modern accounting methods tailored to the requirements of the councils are therefore essential to the success of the 1990 legislation. If adequate training is not forthcoming, the threat of serious financial abuse will become more acute. Losses of funds through poor management will lead to further declines in community council legitimacy.

4. *Lack of Consultation between the Rural Community Council and Rural Development Organizations*

The community council structure is severely weakened by the nearly total absence of coordination and consultation between the council and rural development organizations. Even when "Plans Locales de Développement" exist, they play nearly no role in the choice, design, or location of projects. Council members complain that the lack of coordination means that NGO projects are frequently placed in villages where taxes have not been collected in full and this further undermines the revenue generation capacity of the council.

A vicious cycle sets in. The lack of sufficient revenue reduces the scope of council development projects which in turn lessens the willingness of the tax payers to pay taxes. Without projects the community council lacks authority and, without authority and respect, it cannot be a useful development organization. For this reason, the citizenry simply perceives the community council to have a limited function. Thus, they prefer to regulate most resource management issues at the village-level and avoid interactions with the state.

5. *The Politization of The Rural Community Council*

Democratic institutions are places where public decisions should be made. Decision making is highly political in nature in that various alliances are formed to come to some type of agreement. The rough and tumble game of politics is not a bad thing provided that the actors try to make informed decisions. One cannot expect the rural community councils nor any other representative institution to be devoid of politics. The complaint is often launched that the council leaders are "too political." But what representative public forum anywhere in the world acts solely on the basis of objective rationality?

The charge is frequently heard that rural development agencies should not work with the rural community councils because party politics dominates so much. It is held that the leadership is too corrupt, that the rural community council is simply the manipulated arm of the Senegalese central state, and that the leadership is not responsive to the true needs of the community. While this perspective is indeed true in many instances, the ReMAPS team found that citizens do mobilize

opposition to community council practices when village interests are deeply threatened. As discussed above in section B.2 in relation to the role of community councils in land allocation, opposition forces do surface in cases where land is alienated to outsiders. This mobilization of community opposition is a healthy sign of the progressive trend towards greater community council accountability to the people.

The critique is certainly justified that the rural community councils may not represent the wide range of interest groups that are found within a district. Women, for example, do not generally have a strong voice in the rural community council despite the many activities of women's groups. Powerful traditional elites may block the participation of minority ethnic groups. For example, the Maure gum collectors of the rural community councils of Barkedji and Thiel in the Department of Linguère have very little representation despite that fact that they have lived in the district for more than a decade. Marginalized interest groups seek other mechanisms to express their needs. Often village chiefs and councils of elders are focal points for the discussion of the grievances of politically under-represented groups.

The challenge is to search for ways to create incentives for the most qualified and competent people to run for community council office and get elected. As the chapter below discusses in great detail, mechanisms must be found to increase the legitimacy of the rural community council institution. Unless it has an important role to play, it will only be an institutional backwater where insignificant decisions are made.

6. *The Community Council, Rural Finance, and Natural Resource Management*

The financial situation of the rural community councils is discussed in considerable length in other studies.[65] This report cannot explore in great detail the financial workings of the community council as this goes beyond the terms of reference and resources available to the ReMAPS teams.

From the case studies conducted by the ReMAPS team it became very evident that community councils encounter great difficulties in mobilizing funds for public expenditures. The lack of local government funding sets in motion a self-defeating process in which low council revenues limit the scope of public projects

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[65]Sheldon Gellar, Gérard Chambas, Oumar Kamara. "Decentralized Provision of Public Services and Governance and Management of Natural Resources: The Senegal Case." Prepared for Club du Sahel by Associates in Rural Development. June. 1992.

which in turn diminishes public confidence in the institution. Low public confidence translates into lower tax collection rates. The decline in the public acceptance of the community councils as a viable development and governance organization further limits its authority to intervene in other domains, such as the design and implementation of programs to protect and improve the management of natural resources.

The financial resources at the disposition of the rural community councils are generally meagre. Roughly 70-80% of the revenue for many rural councils come from the rural head tax (500-1000 CFA/person). In the five rural community councils in the Arrondissement of Ndiny (Department of Diourbel), the council budgets were between 1,500,000 and 2,000,000 CFA per year. In the community council of Mbeuleukhé (Arrondissement of Yang-Yang), the budget for 1990-1991 is only 2,990,000 CFA yet only 557,000 CFA had been collected from taxes thus far. There are several reasons for the decline of tax revenues.

One reason for the decline in revenues is that the community council presidents lack the coercive means to collect taxes. In the past, the *sous-préfets* collected taxes. *Sous-préfets* formerly traveled out to the villages to explain the purposes of taxes and the consequences of their non-payment. Modifications in the *Loi Rélative aux Communautés Rurales* now transfer tax generation responsibilities to the council presidents.[66] They do not have the means to raise taxes from delinquent payers. Thus no effective mechanism for enforcing tax collection exists.

Rural community council leaders have long argued for full control over the budget. Cases have been reported in the past where the tax revenues deposited in the departmental treasury and managed directly by the *sous-préfets* have been misspent. Now that the council presidents have legal control over the budgets, difficulties are faced in the management of these funds. Many of the presidents and their counsellors are not literate in French nor are they equipped with the proper training to decipher the complexities of the budgetary system. The council still depends heavily on the *sous-préfets* and the head of the CERP to help prepare and spend the budget. Tax revenues are deposited in the Departmental Treasury and this too presents obstacles. Obtaining the necessary signatures from the proper authorities to remove funds can be a costly and time consuming process.

Another reason for the decline in revenues is that the size of the taxable population is underestimated. Both fraudulent reporting and migration make population estimations difficult. In the ReMAPS case studies, the tax collection rates ranged from 35-45%. Communities, like those of Fandène that once paid 100%

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[66]Loi no. 90-37 de 8 octobre 1990, Article 56.

of the taxes, now pay only 30-40%. In the community council of Sangalkam, only 3 villages paid 100% of their taxes. (See Case Study 3: "Fandène, Department of Thies" and Case Study 4: "Niacourab, Department of Diourbel"). The precipitous decline in tax payment rates is a symptom of the lack of confidence felt by the rural populations.

The declining tax revenue must be ameliorated or else the community councils will lose the means for carrying out their central function of providing public services to the citizenry. The recent Club du Sahel report on rural finance recommends a variety of measures to increase the revenue generating capacities of the community councils. These measures range from the enforcement of existing industrial and mining taxes to diversification of sources of tax revenue.[67] Other revenue generating options should be explored. The community council could be granted the authority to collect taxes from committees managing water points, such as boreholes. The ReMAPS team conducting the case study in Mbeuleukhé recommended that water user fees be used to augment the development funds available to the community council (Case Study no. 2, "Mbeuleukhé, Department of Linguère).

Legislative changes could enable the council to tax other resource users and to invest these revenues in any number of projects designed and implemented by villages. It is reported that community councils in the Casamance tax the cattle of Gambian owners herding their animals to dry season pastures in Senegal. Unfortunately, the ReMAPS team did not have the opportunity to investigate this innovation. The forestry service could give the rural community councils the right to issue forest use permits and to collect taxes on commercial woodcutters, charcoal makers, or forest product gatherers. Considerable experimentation would be required to devise an equitable and transparent system. Such a measure would most likely encourage the public to monitor very carefully the use of funds by the community council leadership.

The Senegalese government established several years ago a fund to reward community council districts for the full payment of taxes through supplemental payments. The "Fonds d'Equipement des Collectivités Locales" incited much interest on the part of the councils and may have stimulated full payment of taxes in some cases. Yet council leaders soon became disillusioned because the depcsits of supplemental payments were often delayed. By the 1990-1991 tax year, only 17% of the community councils had

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[67]Sheldon Gellar, Gérard Chambas, Oumar Kamara, ibid.

paid their taxes in full.[68] As will be suggested in the next chapter, the mechanism is in place to provide incentives to increase the payment of taxes and hence the civic functions of the rural community council. Donor agencies could supplement these funds as part of an integrated program to increase the planning capacity of the community council. Mechanisms would need to be devised to assure the transfer of donor funds to community councils.

Another way to increase community council revenues would be for councils to tax all externally funded development projects a small sum (0.5 - 1% of budget expenditures in the district) and to transfer these funds into the council treasury. A small tax on the 15.8 billion CFA flowing into rural areas from non-governmental organizations alone would have a major impact on the budgets of the council. The council would subsequently allocate these funds for infrastructure projects (eg. rural roads, bridges, roadside tree planting) benefitting the entire district rather than just a limited number of villages.

Some specialists recommend that the council be allowed to deposit annual budget allocations in commercial banks and allocate funds to community council projects through a more flexible dispersement system. This might give the community council greater powers to control funds provided that a solid auditing system is put in place which would allow both the administration and the community council members to verify expenditures. These and other measures are needed to improve citizen confidence that the council can manage funds for development purposes.

7. *Institutional Weaknesses of the Centres d'Expansion Rurale Polyvalentes (CERP)*

The Centres d'Expansion Rurale Polyvalentes (CERP) were designed to provide technical assistance to the community councils. A CERP is located in each arrondissement, though the multidisciplinary characteristics of the teams no longer exist. Some of the best staff have left to work for non-governmental organizations and bilateral and multilateral development agencies. Answering to the Ministry of Interior, the CERP is to assist rural counsellors in elaborating and executing local projects and development plans in accordance with the national

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[68]Ministère de l'Intérieur, Direction des Collectivités Locales, "La Décentralization: Niveau Communauté Rurale." Par Samba Laobé Dieng.

five-year plans for economic and social development.[69] Even though the agents of the CERP are well trained (generally receiving several years of training from the Ecole Nationale d'Economie Appliquée), the abysmal lack of resources renders the staff underemployed and demoralized. The CERP lack the most basic office supplies, transportation, and planning tools like maps and surveying equipment.[70]

The CERP centers have worked with rural community councils since 1986 to develop "Plans Locales de Développement." Teams of technicians have met for several days at a time with the members of the community councils in the regions of Thiès (31 CR), Kaolack (41 CR) and Fatick (35 CR) and Louga. Three regions remain to be covered: Kolda, Tambacounda, and Saint-Louis. Detailed plans are drawn up by CERP technical staff outlining basic needs and development priorities of the rural council district. Even though the planning process, supported in part by the Foundation Konrad Audenauer, has been an educational experience for the CERP technicians, the plans have remained in most cases inoperable. Donor non-governmental agencies and large government projects rarely consult these plans. The plans are of limited utility to development organizations even though they provide statistical and geographical summaries of the district. They often appear to be little more than shopping lists of the current development vogues defined by technicians rather than the true expressions of what villagers need and want. There is not much evidence that truly participatory planning occurred. Even if plans were more dynamic and relevant, it is difficult to locate copies. Rural community council presidents rarely possessed even a reference copy to show the ReMAPS team.

Despite their weaknesses, the CERP centers are called upon frequently to resolve a wide range of issues. CERP staff often serve as outside mediators in land and natural resource disputes. The staff also play a key role in issuing land titles, especially in those areas where rural community councils engage in land allocation (eg. the Delta of the Senegal river valley, the Niayes near Dakar). The staff is designated by law to help the rural community council to measure lands and document the transactions.

The Service de Formation of the Ministry of Interior is responsible for identifying the training needs of community

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[69]République du Sénégal. Arrêté no. 012777, 19 Novembre, 1990/M.INT.CAB.2 *Portant organisation et fonctionnement du Service d'Expansion Rurale*.

[70]For the most comprehensive treatment of the community councils and the CERP, see: Richard Vengroff and Alain Johnston. Decentralization and the Implementation of Rural Development in Senegal, (Lewiston, N.Y.: The Edwin Mellen Press, 1989).

council members, administrators, technical agents and non-governmental personnel. In principal "Cellules de Formation" have been created at the regional, departmental, and arrondissement level which are responsible for informing the public of the law. As with many governmental training institutes, the Service de Formation is chronically short of funds and pedagogical infrastructures. The *sous-préfets* and *préfets* do play, however, an important role in the training of community council members. Seminars and workshops are held from time to time by these administrators to explain the law or administrative circulares.

The CERP is a key parallel institution to the rural community council. Its future is in doubt because of the financial crisis within the Senegalese government and the consequential high attrition rate of its staff. The non-governmental organizations and rural federations have picked up some of the functions of the CERP. The extension function of these institutions is precarious. Somehow the community council must receive a steady flow of information, training and technical assistance if it is to accomplish its important functions. The last chapter will address these issues.

8. *The Contrast between Ideology and Practice: The 1984 New Agricultural Policy and Rural Cooperatives*

The New Agricultural Policy of 1984 promotes state decentralization and the disengagement of the administration from many sectoral development activities. Various economic liberalization policies have been instituted. Intervention in agricultural factor markets has occurred over the years. The policy change called for, among other things, the creation of agricultural cooperatives and resource user groups. As indicated above, the New Agricultural Policy has not resulted in the creation of active cooperatives. Rather, as a result of the failure of cooperatives, the government created the much more flexible *Groupements d'Intérêt Economique*. While the disengagement of the state from many rural interventions is a positive policy shift, it may not have resulted in true devolution of state power over rural affairs.

The removal of fertilizer subsidies might be having a contradictory impact on environmental and tenure relations. Researcher Jim Seyler reports that villagers are actively protecting and planting *Acacia albida* ("kadd") in order to reconstitute soils. The rapid increase in tree planting appears to be occurring as a response to the decline in the availability of chemical fertilizers. Forestry project personnel of the PRECOBA project report similar local initiatives. While the tree planting is laudable, one must ask whether or not the traditional landowners are the only one planting this leguminous species. Land borrowers may not have the rights to plant. Inequities may

grow between those farmers with firm rights to land and the ability to plant leguminous species and those who do not have secure tenure. Yet, long-term borrowers may be taking measures to let the *Acacia albida* regenerate naturally and thus benefit accordingly.

Liberalization policies around export tree crops (ie: gum arabic, palm oil, gum kayara) has facilitated the export trade. However, fluctuating international prices for these export crops play havoc for local producers. During periods when prices are high for these export tree crop products, rural producers can gain quite handsome profits. Gum arabic, for instance, often sells for about 250 CFA/kg but during boom years the price rises as high as 1500 CFA/kg. During these good years, collectors of tree crop products converge on the particular species. Disputes over use-rights often occurs. Violent conflicts have pitted Maure gum collectors against Fulbe pastoralists over rights of access to the valuable *Acacia senegal* tree. When the price plummets, the disputes tend to decline with the drop in demand for gum.

The New Agricultural Policy has not yet translated into improved local governance of natural resources. The state has not been able to invest in local level institutional capacity building as originally anticipated. Yet the climate of liberalization has fostered the growth of a wide range of non-governmental associations seeking to take local development matters into their own hands. Rural institutions are seeking to combine their indigenous knowledge with what is offered by state extension services to respond to various environmental crises affecting rural Senegal.

V. THE RURAL COMMUNITY COUNCIL, NATURAL RESOURCE MANAGEMENT, AND DONOR PROJECTS

A. Overview

The ReMAPS team concludes that measures ought to be taken to increase the institutional capacity of the rural community councils to manage natural resources more effectively. As the sections above have indicated, despite the weaknesses of the institution of the rural community council, it is a permanent fixture of local governance. Democratic and responsible governance organizations ought to exist in some form at a local level in order to facilitate the improved management of natural resources. Improvements in the management of natural resources hinge upon the existence of a multitude of local level institutions, both state and non-governmental, capable of designing and enforcing rules regulating the use of resources.

This chapter focuses on ways to increase the planning and rule-making functions of the rural community councils. The chapter spells out a variety of mechanisms to increase the capacity of both the rural community councils and parallel non-governmental organizations to manage natural resources on a more sustainable basis.

B. Institutional Capacity Building of the Rural Community Council and Sustainable Resource Management

The previous sections described constraints the rural community councils face in trying to design and implement programs and projects. Council members lack the skills, personal incentives and financial means to make the rural community council function as a respected institution. Many community councils in Senegal lack the legitimacy and authority to manage natural resources on a sustainable basis. Other state institutions, non-governmental development organizations, and religious bodies offer more and better services than the rural community councils. As a result, the councils are often marginalized actors in the rural decision making arena.

Numerous studies have concluded that the donor community should support the long term training of elected council members in a variety of governance skills such as legal education, financial management, and program planning and implementation. Detailed plans have been presented on several occasions.[71] The

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[71]See Richard Vengroff and Alan Johnston, "Decentralization, Rural Development and Mid-Level Development Agents in Senegal: A Report on Training Needs," Lubbock, Texas: Texas Tech University,

ReMAPS team supports this thrust.

The ReMAPS case studies, as well as the recent literature on the rural community councils, indicates that the leadership places a priority on improving its skills in financial management. Interviews with council leadership indicated that the members were deeply frustrated over the inability to understand the complex budgetary process. Council presidents reiterated the need for better control of council finances.

The community council members lack a good understanding of the complex legal corpus. Legal texts are rarely found at the headquarters of the rural community councils. From time to time training materials may be found in the hands of council members. Legal education is offered from time to time by the *sous-préfets* and the *préfets* but these are often simply pedantic lectures. Council members have a broad understanding of their functions, but appear to have only a limited understanding of how they can use the law to appeal arbitrary administrative decisions. The rural constituencies often have only a perfunctory grasp of the major elements of the *Loi Rélative au Domaine National* and the *Loi Rélative aux Communautés Rurales*. An educational process is certainly needed to inform rural populations of their legal rights and responsibilities.

Public seminars in Senegal uniformly recommend training programs on the various topics indicated above. Most programs fail to consider mechanisms for long-term financing of such activities. The ReMAPS sponsored seminar on "Resource Management by Local Collectivities" spelled out numerous needs for training but few concrete measures to construct an on-going training process that educates every successive generation of council leadership. The central problem is that neither the government nor the rural community councils have the financial resources to build a self perpetuating educational process. The CERP in theory is mandated to carry out this educational function, yet this structure lacks financial support. The community council should have the financial autonomy to educate its own leadership in financial management, legal education, and program planning. Yet in order to raise funds for this activity, the council must increase taxes and diversify its sources of income. It must therefore find ways to rebuild its legitimacy in the eyes of the rural populace. Legitimacy can only be fostered if the community council delivers benefits and services desired by the citizenry.

Center for Applied International Development Studies, November 1985; or Richard Vengroff and Alan Johnston, "Senegal's Rural Councils: Decentralization and the Implementation of Rural Development," Lubbock, Texas: Texas Tech University, Center for Applied International Development Studies, November 1985.

1. *The Community Council and the Creation of a Position of "Animateur Communautaire"*

The institutional capacity building process of local governance institutions takes time and resources. The Senegalese government lacks the financial means to support adequately the training and extension functions of mainline ministries. Sectoral extension programs are poorly supported by government and donors during this era of state disengagement from direct intervention in rural and agricultural development. External donor aid for rural development programs in Senegal constantly evolves as a function of changing international priorities. While the interest currently exists among donor organizations to support institutional capacity building among local level organizations, this support is certainly ephemeral. Some type of mechanism is needed to increase the planning functions of local institutions such as the rural community councils in a sustainable, inexpensive and relatively short-term fashion.

The inter-village federations in Senegal have achieved considerable success in utilizing the skills of rural animators, hired and fired by the assembly of villagers. This model can be used to increase the capacity of the rural community councils to manage natural resources more effectively. USAID/Senegal and the government of Senegal should support the creation of a position of "*animateur communautaire*" under the tutelage of the rural community council. Like an executive secretary or city manager this person would carry out the policy mandates of the community council and be directly accountable to the council leadership. The community council would hire and fire the *animateur communataire* and pay for this person's services from council revenues. The long-term objective would be for the community council to use council revenues to pay the salary of the "animateur communautaire," thus guaranteeing the institutional sustainability of the position. If the animator indeed helps the community council implement projects and programs of interest to the entire community, than tax revenues and other resources needed to cover salary costs will most likely be generated in the future. Over time the position of the rural animator may become a standard feature of all 318 rural community councils in Senegal.

The animator would possess a multitude of development skills and provide a variety of support services to the community council. S/he could dispense legal advice and interpretation of legislation; help devise and plan community council programs and projects; lobby for external support of these activities; and help manage the internal finances of the council. The *animateur communataire* would be a development worker hired by the community council to serve as an intermediary between the council leadership and the broader development community. In this function, s/he would provide constant training to the community

council leadership in the host of roles it must play. When the animator could not respond to the need for specific advice and/or information, s/he could contract out the services of specialists from the governmental, non-governmental, and private sectors.

2. *The Tasks of an Animateur Communataire*

The tasks of the *aninimateur communataire* would be defined by the rural community council. Any number of activities can be envisaged. The animator could develop a program of counsellor training and program development. The animator could conduct a needs assessment of the membership of the community council to determine priority training needs. If the council membership deemed it important, the animateur might initially conduct a series of workshops on legal education and financial management.

Another central activity would be to set in place a planning process for the community council leadership. The animator could use the techniques of Participatory Rural Appraisal (PRA/MARP) to work with the counsellors to do a diagnostic of the development constraints and opportunities in the district. The counsellors could be trained to replicate this type of study at the village level. Non-governmental organizations and training institutes with experience in this domain would set up a curriculum for this hands-on instruction in local-level planning. Development plans and visual diagrams (eg. Maps, institutional diagrams, preference ranking, matrices) prepared by the counsellors themselves would remain in the council district itself as part of a public display.

The long-term objective would be to develop coordinated development plans ("plans de gestion du terroir villageoise") for the villages of the community council district. Development institutions with skills in participatory local planning (ie: Foresterie Rurale program of the Eaux et Forêts, non-governmental development agencies like P.I.P, PRAAP...) could be contracted by the community council to work in villages to set up a planning process. Village "gestion du terroir" plans would also be presented to and filed with the community council headquarters.[72] The formulation of village development plans would feed into the community council planning process. Funds at the disposal of the council would then be directed to the projects identified by the village communities.

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[72]For a detailed description of current thinking on the subject, see: Amadou Matar Diouf, "Le foncier, la décentralisation et la gestion des ressources naturelles," paper presented to the conference on "Natural Resource Management by Local Collectivities." V. IV of ReMAPS study.

The animator would be responsible for writing project propcsals suitable for funding by donor agencies and government. Since most community council members are illiterate, this project proposal writing function would overcome one of the obstacles long hindering the formulation of plans reflecting the needs of the community council.

3. *Qualifications of the Animateur Communataire*

The qualifications of the animator should be somewhat similar to the CERP staff. The position is predicated on the existence of a pool of qualified individuals willing to work in rural communities. These qualified individuals are available as seen by the success federation have had in recruitment.

Candidates for the position of *animateur communataire* could be selected by the community council from a pool of highly qualified people with extensive experience in community development activities (ie: ENEA graduates, former CERP staff, ex-Animateur Rurale staff). The salary of the "animateur" could be paid initially out of project funds provided directly to the community council and deposited in the departmental treasury. The salary would be equivalent to that of a CERP extension officer. The project might provide the community council with a motorcycle for the transport of the rural animator. Fuel and maintenance would be paid for out of the council budget.

The establishment of a long-term *animateur communataire* program might resolve one of the critical employment problems in Senegal. Graduates from the technical training schools are no longer finding guaranteed employment in government. The opening up of 318 positions for development specialists would make an appreciable impact. The incentive structure built into the *animateur communataire* position would insure that the positions would not turn into cushy bureaucratic slots.

4. *Long-Term Financing of Council Activities*

In contrast to extension agents that are hired by the government, the proposal presented here grants to the community council the authority to hire and fire the extension agent. The animator's salary would be paid for out of the community council's budget. The incentive is built into the system for the *animateur communataire* to find ways to increase the annual budget of the council so that it can support the position.

Revisions in the community council revenue generating process would be a central part of the project activities. A large number of proposals have been presented, such as those of the recent Club du Sahel mission on "Decentralized Provision of Public Services and Governance and Management of Natural Resources." Many options have been proposed to increase rural

community council revenues, but these may not tap into the considerable sums invested through development projects. Legislative reforms might be introduced by the government of Senegal to give the rural community council the right to extract a 1% tax on all projects (NGO and donor) that have actions in a particular rural community council. This tax would be used to pay for the rural community council animator who would help generate further projects, help continue the local level planning process between the community council and district villages, and finance micro-projects that most donors do not have the funding flexibility to finance (eg. schools, road maintenance, market construction, water resources...). These funds would be used by the community council to contract out services from the government and private firms for specific projects (ie. Eaux et Forêts and tree planting, Service d'Equipement for construction of roads, etc). This would be a conditional tax contingent upon the continued hiring of an *animateur communataire* by the community council, the on-going implementation of development projects, and the up-dating of community development plans.

The mandate of the *animateur communataire* might be limited to the five year term of office of the community counsellors, though it would be subject to renewal by majority vote of the council membership.

5. *Establishment of the Animateur Communataire Position*

a. Block Grants and the Animateur Communautaire

Donor organizations such as USAID could play a formative role in this schema by stimulating the revenue generating process through a block grant program. The donor would give a block grant to the community councils contingent upon the payment of taxes and the generation of alternative sources of tax revenues - the higher the tax revenue and tax collection rates, the larger the block grant.

The donor project could establish a formula in which the initial pilot rural community councils paying 100% of their taxes would receive an "incentive grant" of say, 300% the value of the tax revenues. Block grants would be paid out over the course of a five to ten year project. Incentive structures could be built into the grant to encourage not only full payment of taxes but the generation of revenues through other legally available means. If a rural community council succeeded in raising its revenues by 25% over a year, the project might infuse into the budget a bonus payment of, say, 500% the value of the increase in revenue.

The *animateur communataire* would work with the council to identify appropriate projects. No strings would be attached to this component of the matching grant. Funds could be used for whatever purposes deemed to be priorities by the community

council. This would give the community council the greatest liberty to respond to the felt needs of the populations.

Natural resource management activities (e.g., construction of firebreaks, roadside tree planting, live fences along cattle tracks, improvement of natural water sources, community council seed nurseries, subsidies for the construction of soil and water management devices, planning of water and pasture use strategies) would be paid for by the community council out of a separate fund specially set up for these initiatives. Such activities would be identified and designed out of the participatory planning process conducted at the community council and village level.

The donor project would provide the financial support for a predetermined time directly to the community council to hire a qualified "animateur communautaire." The project would help the council identify a group of qualified candidates and help organize selection interviews and eventually training of this organizer. Once the animator is hired, a process would be set in place leading eventually to the establishment of village level and community council development plans. External funds should be made available for the design and implementation of these council plans for at least a 4-5 year period.

b. Government of Senegal Functions

The CERP and the donor project staff would initially play a central role in the design, implementation and monitoring of an "animateur communataire" program. The Ministry of Interior would need to work very closely with the donor in the conceptualization and implementation of the program. These organizations would work with the pilot community councils to identify a pool of suitable rural community councils. The project would need to be initially tested in a limited number of districts. Councils currently paying 100% of their annual taxes might be selected for a first phase. For the second phase a group of potential community council candidates would be identified and notified that if rural taxes were paid in full, the project would be instituted in their districts. Simple project monitoring procedures would be put in place to allow surveillance of expenditures by the citizens of the community council, the donor, the CERP and the sous-préfecture.

6. *Ancillary Project Activities*

The donor project would finance the technical support for this initiative. Funds would be allocated to such training institutions as the Ecole Nationale d'Economie Appliquée to devise simple accounting procedures for the rural community councils. Funds might be used by the ENEA to devise a training curriculum in functional numerical training of community council members. This methodology would be taught to the "animateur

communautaires." Similarly, the Unité d'Enseignement de Sciences Juridiques of the Université de Saint Louis might be contracted to devise a legal education program for community council members and the animators. Non-governmental organizations and government institutions with extensive rural planning experience (eg. ENDA, PIP, Oxfam, Projet Foresterie of the Eaux et Forêts) might be contracted out to develop the appropriate participatory planning tools.

7. *The Animateur Communataire and the Management of Natural Resources: A Scenario*

The following scenario may help to clarify the objectives and potentials of the above proposal.

The animateur communautaire and counselors of a community council in northern Senegal note during a village level planning exercise using Participatory Rural Appraisal tools that the sump tree (Balanites aegyptiaca) is a vital source of women's income through the sale of fruit and hand processed oil, especially during drought years. However, one of the key constraints to oil production is the dehulling of the hard kernel of the sump seed, a tedious and time consuming process conducted by children and old women. Perhaps if this constraint is removed through the design of a sump kernel cracking machine, productivity can be increased and hence women's income. Following the directives of the community council and the village associations, the animateur communautaire is charged to contact government and non-governmental institutions for technical assistance. She goes to Dakar to make the rounds of the technical schools and non-governmental agencies. Eventually she finds that the non-governmental organization RADI has experience in the oil-press domain due to its collaboration with the American NGO Appropriate Technology International. Community council funds are used to pay RADI for a technical feasibility study. Eventually RADI locates a machine for testing in the area based on models tried elsewhere in Africa. RADI lacks sufficient funds for the development of a testing program so the community council uses some of its funds to pay for the purchase of experimental kernel cracking machines. The council advises RADI where and how to set up a testing program. Eventually a perfected machine is developed. The community council and the animator work with the village women's association to develop an appropriate credit and marketing system for the tool.

The community counsellors and the villages involved in sump collection note after a couple of years that the Balanites species is not regenerating quickly. They suspect that the harvest of fruits and nuts has limited the seed stock in the soil and that heavy grazing by livestock have harmed natural regeneration. The council asks the forestry service to assess the situation. Following protracted discussions, the forestry

service, the community council, and women's associations decide that the best course of action to regenerate the tree is to establish a rotation system whereby certain acreage are left unharvested and grazing is severely controlled every couple of years in order to allow the regrowth of young seedlings. Great care is taken in these years to control forest fires by cutting firebreaks around the plots. Some weeding takes place around some of the seedlings in order to spur seedling growth. Youth are hired with council funds to keep out goats and sheep during the dry season.

The rural community council prepares an edict laying out the rules of forest use. All herders are informed through the Borehole Management Committee that they are to by-pass the plots when herding their cattle through the zone. The council establishes system of fines for non-observance of the rules. The forestry service, the gendarmerie and the sous-préfet are asked to help enforce these provisions in case of non-compliance.

This scenario hopefully provides an illustration of how such a system might work. The example demonstrates how the rural community council could serve the interests of specific resource user groups and help to develop a common property management regime around a valuable tree species. Similar scenarios should be thought through as part of an exercise to flush out the strengths and weaknesses of this proposal.

VI. CONCLUSIONS AND POLICY OPTIONS

The following section outlines a series of policy options intended to increase the capacity of rural institutions to manage natural resources. The purpose of these suggestions, based upon the information collected and reviewed during the ReMAPS study, is to stimulate discussion within the USAID/Senegal mission. The majority of the recommendations would require more detailed reflection, some additional studies to flush out programmatic details, and the active contribution of mission staff familiar with USAID programmatic exigencies. Implemented individually without a coherent long-term strategy, few of these policy and programming options would have a long-term impact.

The section is divided into two sections under the following rubrics:

1. National Land Tenure Policy Options: A series of policy options pertaining to tenure policy reforms on a national level that ought to be coordinated between the donor community and the Senegalese government;

2. USAID/Senegal Program Options: A series of policy options specific to areas of intervention appropriate to the USAID/Senegal mission;

A. National Land Tenure Policy Options

Senegal is faced with three broad categories of policy choices with regards to resource tenure. The Senegalese government may chose to:

1) Abolish the corpus of legislation related to the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales* and let market forces and customary land allocation practices take their course;

2) Ameliorate through incremental changes the present corpus of laws and administrative practices to reinforce the capacity of local institutions and the state to manage jointly natural resources; and,

3) Refrain from interventions in the domain of environmental and land legislation and administrative practice and let stand the current status quo.

Recommendation 1. Maintain Present Land Laws though Promote Appropriate Incremental Modifications

The ReMAPS team concludes that the fundamental precepts of the Senegalese land tenure regime should remain intact. The *Loi Relative au Domaine National* should be retained in its entirety, though measures should be taken to strengthen the role of local collectivities, the rural community council, in the management of land and other natural resources. The *Loi Relative aux Communautés Rurales* should remain the cornerstone of local-level rule-making, though policy reforms designed to strengthen the institutional capacity of the rural community council should be undertaken in the near future.

Recommendation 2. Devolve Resource Management Functions as Part of a Co-Management Approach between the State and Local Collectivities

The Senegalese government should be strongly encouraged by the donor community to continue its efforts to devolve resource management authority to local collectivities. Rural community councils should be vested with increased powers to control their territory against unmitigated exploitation by external economic interests. Devolution of resource management authority implies that the community councils be granted powers to control the movement and settlement of non-residents. Rural community council should be vested the authority to negotiate conditions (ie: locally devised rules and regulations) to responsibly and sustainably use natural resources within their territories. Rural community councils should be allowed conditional rights to exclude non-residents, conditions subject to the rules controlling the exploitation of natural resources.

The ReMAPS teams recognizes that private land markets are emerging around natural resources in contradiction to the legal tenants of the *Loi Relative au Domaine National* and the *Loi Relative aux Communautés Rurales*. The growth of peri-urban land markets will most likely dispossess a certain percentage of resident populations. The growth of the land market will probably exacerbate landlessness and foster a politically volatile labor force. While local communities can use the current corpus of land laws to control the intensity and direction of land privatization, local communities will still find it extremely difficult to control the illegal sales of land. The state and donor agencies should be supportive of requests by rural community councils to control the peri-urban land markets.

Recommendation 3. Increase Local-Level Rule-Making Capacity of the Rural Community Councils

The *Loi Relative aux Communautés Rurales* describes the functions of the rural community councils. Article 30 of the Loi

72-25 indicates that the CR may emit "wishes" (*voeux*) regarding the creation of rules and regulations governing the use of a wide range of natural resources within the community council. The ReMAPS team recommends that the key legal distinction of "*voeux*" be modified to grant greater local-rule making powers to the community council. Devolution of rule-making powers might replace the word "*voeux*" with the clause that "*la communauté rurale a la compétence de proposer des règlements locales qu'elle juge utile au développement soutenable de leur terroir.*" Legislation passed by the rural community council should have legal standing thereby reducing the veto powers of the administration. Council legislation could be admitted to the Supreme Court by the administration. By increasing the local-level rule making capacity of the rural community council, their institutional authority may be enhanced.

The USAID should encourage the government of Senegal to devise a process whereby this type of legislative change may be made in the *Loi Relative aux Communautés Rurales*. This would entail allocating funds for seminars and workshops on the opportunities and constraints posed by local-level rule making and working with academics and government officials to draft legislative changes. The law school of the Université de Dakar and the U.E.R. des Sciences Juridiques could be granted a contract to foster this type of public policy debate.

Recommendation 4. Devise Joint Enforcement Mechanisms to Increase Local-Level Rule-Making Capacity

The rural community councils should collaborate with villages located within the council district to establish rules and enforcement mechanisms regarding the use of such commons as pastures, cattle tracks, streams, and forests. The community council leaders should be given the skills needed to engage in participatory planning at the village level (See recommendations B-3 below). Senegalese institutions (ie: Ecole Nationale d'Economie Appliquée, Institut des Sciences de l'Environnment) possess the skills to instruct community rural leaders in the use of Participatory Rural Appraisals (PRA).

USAID should establish long-term contracts with these schools to teach rural community council members participatory planning techniques. The Ecole Nationale d'Economie Appliquée should train "*animateurs communautaires*" in the use of planning tools employed through Participatory Rural Appraisals. USAID should encourage U.S. environmental agencies with extensive experience in local level planning (ie: World Resources Institute and Clark University, "From the Ground Up" Program) to provide some institutional support.

Recommendation 5. Apply on a Limited Basis a Rural Cadastre and Land Registration Process

The ReMAPS team questions whether the administration and/or the rural community council can apply, on a national basis, a rural cadastre or other land registration methods. The high costs and difficulty of maintaining registers make such programs problematic. In areas where lands are of high commercial value (eg. Niayes, irrigated perimeters), a cadastre may be merited. Land registration programs should be considered on the behest of council leadership following debate on the pro's and con's. The experience of the Land Tenure Center with land registration programs in other parts of Africa, Latin America, and Eastern Europe should be utilized if a land registration program is to be designed and implemented.

Traditional land allocation practices will be a feature of rural communities for some time to come. The government should encourage rural communities to devise simple and low cost methods of recording land transfers. Traditional land transfer techniques should be encouraged. For example, land transactions should be public affairs. Land owners and borrowers might be requested by the rural community councils to exchange gifts of kola nuts in public ceremonies in order to publically recognize the land transfer. Rural communities should be encouraged to register transfers of land with the rural community councils. Simple registers should be set up and secretaries of the councils trained in their maintenance. Such techniques to increase public awareness of land transactions may resolve tensions within communities.

Recommendation 6. Increase Representation of New Economic Groups and Social Categories on the Rural Community Councils

The ReMAPS case studies consistently noted the lack of broad representation on the community councils. The team recommends that the current voting procedure whereby candidates are voted through a "*liste de scrutin majorité*" be modified to allow more direct election of community council members. The current electoral laws ought to be modified to do away with the stipulation that 1/4 of the council be chosen by the cooperatives. Few if any functioning cooperatives now exist in Senegal. Donor development organizations can do little to increase the participation of under-represented social categories except to identify the problem in the course of programs and projects.

The ReMAPS team encourages a national debate on proposals to reduce the politization of community council elections. One option suggested frequently within the academic community is to forbid the participation of political parties in rural council elections and to let populations vote directly for candidates of

their choice. This might pave the way for greater participation of under-represented social groups.

The USAID/Senegal and other donors could support financially conferences and seminars on the thorny question of the politization of the rural community council. The new political science program of the University of Saint-Louis might be an appropriate body to sponsor such conferences, the first step to building consensus and policy making coalitions.

Recommendation 7. Simplify and Harmonize the Laws, Codes, Decrees and Administrative Circulares on Natural Resources

There is a great need to simplify the laws and codes of Senegal. These laws contain contradictions and inconsistencies that make them little accessible to local populations. Donors should support initiatives of government agencies and non-governmental organizations aimed at the review and simplification of laws pertaining to natural resources. This would be a long-term process involving, most likely, the Legal Counsel of the Presidency who would work in conjunction with an inter-ministerial and national assembly commission.

The complexity of the legal corpus may make the simplification process extremely difficult. In place of this option, a highly participatory public process associated the design of a "Land and Natural Resource Charter" (*Charte Foncier Rélatif aux Ressources Naturelles*) might merit consideration. This option, chosen by the government of Niger in the preparation of the proposed *Code Rural*, identifies in a clear and concise fashion principals of land use. These principals could reflect both current public policy and legal doctrines. Such a code could be translated into the major national languages of Senegal and be publicized through the media. The development of the proposed Rural Code in Niger was the creative outcome of much public debate and discussion. It served as a mechanism to develop public policy around a very sensitive and contentious issue and may have helped to keep resource conflicts somewhat under control.

Recommendation 8. Increase Accessibility of Legal Corpus to Rural Populations

Considerable efforts must be undertaken to provide legal education to community council members and other rural leaders who could use laws to protect and improve the natural resources located in the council district. Lessons learned from the legal education program of CONGAD and RADI should be considered in the

design of a national legal education initiative.[73] Both organizations developed extensive recommendations for the creation of para-legal services.

The legal texts should be translated into the six recognized national languages (Wolof, Pulaar, Soninké, Serer, Mandinka, Diola). A priority should be placed on translating the *Loi Relative au Domain National*, the *Loi Relative aux Communautés Rurales*, and the new Forest Code. Key legislative texts are being translated into Pulaar by the non-governmental organization ARED. These and other texts should be made available to rural literacy training programs. The U.E.R. des Sciences Juridiques of the Université de Saint-Louis can be usefully employed to verify the accuracy of translation of these texts into local languages.

Radio programs and television shows should be designed to explain the role of legal texts relating to the environment. Such programs should use innovative communication techniques, such as putting on the air skits sketching out a particular legal problem encountered by villagers and the means for its resolution. Interest has been expressed by the U.E.R. des Sciences Juridiques to coordinate with non-governmental organizations such as program.

Recommendation 9. Test Application of the Proposed "*Arrêté Préfectoral Fixant les Conditions Minimales de Mise en Valeur des Terres du Domaine National*"

The projects currently promoting "*Gestion du Terroir Villageois*" activities should be encouraged to work with the Ministry of Interior to test the feasibility of the "*Arrêté Préfectoral Fixant les Conditions Minimales de Mise en Valeur des Terres du Domaine National.*" The proposed legislation is a creative attempt to devolve resource management control by obliging the *préfets* to determine "*mise en valeur.*" The provisions should be tested and modified before they become law in several rural community councils. USAID and other donors could work with government to set up a pilot program in selected rural community councils in different agro-ecological zones. The community council districts studied by the ReMAPS project might serve as a good basis given the background information known about these areas.

The definition of *mise en valeur* should be modified to include ecological improvement (eg. tree planting, "assisted fallow," construction of soil and water conservation dikes) as a

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[73]See CONGAD et La Commission Intérnational de Juristes. Les Services Juridiques en Milieu Rural, Rapport d'un séminaire tenu à Tambacounda, Sénégal, 9-12 avril, 1984.

"productive" use of land.

B. USAID/Senegal Program Options

Recommendation 1. Support World Bank "Plan d'Action Foncier" Initiative

The USAID/Senegal mission should actively support the World Bank initiative to promote a year long policy dialogue process within government (Ministère du Développement Rural et de l' Hydraulique) leading to the preparation of a "*Plan d'Action Foncier.*" It should offer to provide complementary support as needed for supplementary field research and a mechanism to increase the participation of a broader public. Unless the Senegalese government designs itself policy reforms on the sensitive issue of land legislation, no effective nor long-lasting policy interventions can be expected by the donor community. While the World Bank initiative is laudable, greater attention should be placed on ways to incorporate into the government debate the perspectives of non-governmental organizations and rural entrepreneurs. Forums should be held of different sectors within Senegalese society to discuss the land tenure and natural resources situation leading to the formulation of specific policy proposals. The initiatives taken by the government of Niger to promote discussion of the Rural Code could be instructive.

Recommendation 2. Encourage Formation of the "Conseil Supérieur de l'Environnement et des Ressources Naturelles" (CONSERE) and the Placement of Land Tenure on its Agenda

The dialogue on tenure and natural resource management should be one of the top items of consideration of the proposed "Conseil Supérieur de l'Environnement et des Ressources Naturelles" (CONSERE). This body might be charged with the task of coordinating field research activities by Senegalese academic organizations to feed into the "*Plan d'Action Foncier.*" It also might organize a broader debate on land tenure questions.

Recommendation 3. Establish Pilot Program to Institute an *animateur communataire* Position at the Level of the Rural Community Council

As discussed above in Section V B, the USAID/Senegal mission should experiment with the implementation of the *animateur communataire* position. The mission should finance a consultancy by a Senegalese institution to consider further the potentials, practicalities, and constraints of this option.

The Ecole Nationale d'Economie Appliquée is particularly well suited for this task. The school has considered this option in some detail through a previous USAID sponsored project with

Texas Tech University as well as a present program with the University of Connecticut. The U.E.R. des Sciences Juridiques is also a competent institutional capable of contributing to the design of the program. These institutions should work closely with the Ministère de l'Intérieur and the Direction des Collectivités Locales. The members of the ReMAPS research team should be encouraged to help design the details of an *animateur communataire* program so that the perspectives gained in this project are integrated into the program planning process.

During the early formulation phase, the mission should set up a highly participatory design process in which rural community council leaders are encouraged to interact with a program design team. The "*Association Nationale des Présidents des Conseils Ruraux*" may be one such organization. The proposals to strengthen the rural community councils should be presented to the association and details discussed at considerable length. Members of the association should be invited to participate in field interviews in various rural community councils around the country.

Pilot programs to strengthen the rural community councils along the lines suggested in Chapter V should be started gradually and on a limited scale. Such an initiative should be allowed to develop at its own speed. USAID could work with about six to ten rural community councils in the major agro-ecological regions of the country.

The non-governmental organizations familiar with institutional capacity building techniques (eg. Oxfam-England and its Animateur Communautaire program in Namarel and P.I.P. of Podor) should be invited to participate in all phases of the program. The experience gained by these NGOs in working with rural community councils would be invaluable.

The technical expertise of organizations currently using Participatory Rural Appraisals should be sought to design a program of participatory rural planning at the community council level. The Ecole Nationale d'Economie Appliqué and the Ford Foundation/IDRC funded PRAAP project should be incorporated into the planning and implementation process.

Recommendation 4. Utilize ReMAPS Case Study Sites for Pilot *Animateur communataire* Project

Pilot rural community councils could be chosen by a successor to the USAID/Senegal Reforestation Project to implement the above described scheme. The pilot community councils might be linked to the seven case study sites where the ReMAPS team has already conducted field research. The case studies provide good baseline data that could be incorporated into the design of

projects to increase the institutional capacity of rural community councils. USAID and government could encourage these rural community councils to come up with the 100% tax coverage as a condition to receiving a block grant and training programs as described fully in Chapter V. Otherwise, a project could channel block grants through other rural community councils that have paid in full rural head taxes.

The USAID natural resource management projects should choose representative rural community councils - those that "work well" as well as those that are "weak." Pilot projects should not necessarily be targeted to the most exemplary rural community councils.

Recommendation 5. Conduct Case Studies on the Institutional Dynamics of the Rural Community Councils Chosen for Project Interventions

USAID funded natural resource management programs oriented towards the improvement of the capacity of local institutions to manage natural resources should conduct preliminary analyses of the organizational make-up of the rural community council districts chosen. The PRA research methods employed in the ReMAPS studies are useful tools. Projects should try to engage Senegalese familiar with PRA to form multi-disciplinary teams for this purpose.

Recommendation 6. Establish a Curriculum for Community Council Financial Management Training

The Ecole Nationale d'Economie Appliquée, non-governmental organizations, and other Senegalese institutions should be approached to design a training program for community councils in budget and financial management. This should be done in collaboration with the Ministry of Interior and the Direction des Collectivités Locales. The non-governmental organization, P.I.P., should be incorporated into such program. The training program should then either be integrated into either a pilot "*animateur communataire*" program or a long-term training program for community council members. Such a program might be implemented by non-governmental coordinating bodies such as the FONGS or the CONGAD. The training module might be offered as a fee-paying course by a Senegalese training institute to donor agency and non-governmental organization projects.

The Cooperative League of America (CLUSA) has had extensive experience training Sahelian farmer's groups in financial management. The CLUSA should be asked by USAID to work with the Senegalese colleagues to develop a long-term curriculum in community council financial management training.

Recommendation 7. Establish a Legal Education Training Program Associated with the Translation of Legal Texts on Environmental Issues into National Languages

The Ecole Nationale d'Economie Appliquée should work with the new U.E.R. des Sciences Juridiques of the Université de Saint-Louis to develop a curriculum in rural legal training. On a fee-paying basis this short course could be offered to interested non-governmental organizations, community councils, and donors. The USAID could contract the two institutions to develop and test the curricula and equip the institutions to implement an on-going program.

The CONGAD and the RADI both have experience in setting up legal training programs. M. Mazide NDIAYE, the former president of CONGAD and the present director of RADI should be asked by USAID to help set up a legal education training program. Specialists in adult education should also be asked to put together creative curriculum.

Recommendation 8. Support Creation of a "Journal for Rural Collectivities"

The USAID/Senegal should consider setting up a program leading to the publication of a "Journal for Rural Collectivities" destined for community council members, local administrators, and non-governmental organizations. Published in French and major local languages, such a journal could publicize new laws and decrees, explain the workings of the law, and report on innovative measures taken by local communities to deal with legal affairs. Models exist on ways to start such a journal. Ford Foundation was at the origins of the creation of the highly respected weekly paper Sud-Hebdo.

The U.E.R. des Sciences Juridiques has expressed an interest in helping to put together such a publication. It might be given a grant to put together some initial issues and test market the appeal. Out of this process, a GIE might be created of entrepreneurs and academics interested in publication of regular issues.

Recommendation 9. Support Forestry Service Applied Research and Testing on "Decrees of Application" for the New Forest Code

The new Forest Code requires the preparation and implementation of "decrees of application." Research needs to be conducted as part of the process of writing the decrees. The pilot rural community councils could be used as a foundation for testing out the provisions of the decrees of application before they become law.

Recommendation 10. Support Documentation Reproduction Costs for a Collection of Literature on Land Tenure and Natural Resources

The ReMAPS "Bibliography on Land Tenure" indicates the great wealth of documentation on land tenure in Senegal. Much of this documentation is difficult to obtain in Senegal. However, it is an important source of information needed in program planning and implementation. The USAID/Senegal should finance the creation of a collection of documentation on land tenure and deposit it in a Senegalese university library. A collection based might be placed at the University of Saint-Louis with a duplicate copy of materials submitted to the University Cheikh Anta Diop of Dakar. Photocopies should be provided to both institutions of journal articles and purchases should be made of key books.

Recommendation 11. Finance Annual Conferences on Local Collectivities and Natural Resource Management

Under the auspices of the ReMAPS project, the U.E.R. des Sciences Juridiques of the Université de Saint-Louis organized a highly successful yet low cost conference on "Natural Resource Management by Local Collectivities." Conference attendants included a cross-section of Senegalese specialists. Similar innovative programs should be financed in the future on a yearly basis. In the future, at least one conference should be organized around the topic of "natural resource management and community councils." Such a conference should be held in national languages and rural community council members should be invited to give presentations to administrators, academics, and development project personnel.

ANNEXES

I. Terms of Reference

SCOPE OF WORK

Resource Management and Planning Study (ReMaPS)

Background: USAID/Dakar is planning a major, new natural resources management project to be obligated during the second quarter of fiscal year 1993. This project will be a follow-on to the current Senegal Reforestation Project (685-0283) due to terminate in July, 1993. A preliminary concept paper for this new project, presently entitled Community-Based Forestry Management (685-0305), has been prepared and submitted to Washington in the FY 1992 ABS. An amplified concept paper for this new project will be developed and submitted for Mission-wide review on or before January, 1992. It is anticipated that the scope of the project will be broadened to include community management of all existing natural resources not just forest resources. Current pre-concept paper thinking indicates that there will likely be a number of inter-related activities or components which will be included in the design of this new project. These components may include: research activities, natural resources/forestry policy reform, decentralization and local level (village or community-based) resource planning, allocation, and management activities.

It is clear that a critical element and perhaps the most complex piece of the design puzzle will be a clear statement of the objectives of the village level activities and the design of interventions that can be undertaken there given past experience(s) and the human and financial resources likely to be available.

A number of known gaps in our understanding of local-level (village and communaute rurale) resource allocation exist. The Technical Office feels that it is important to begin now to increase our understanding and our knowledge of local level resource management, the key players, the legislative and tenure context within which background against which resource management decisions are made, and the organizations working at the village level and their capabilities. The purpose of this village level resource management and planning study is to increase our understanding of current resource management experience(s) and the statutory and tenure framework against which natural resources management actions are planned. Based upon this understanding and the recommendation made by the study, the project paper design team can better develop possible local level interventions including tenure reforms which make use of lessons learned with previous GOS, other donor, and local level activities designed to enhance resource planning and management. With the help of the local level resources planning and management study, USAID and the GOS would have the opportunity to review a spectrum of policy and programmatic options to consider in planning an appropriate response in the form of a new natural resources management project.

Objective: To analyse present institutional and managerial capacity of the Communaute Rurale (CR) and other local level natural resource planning and management organizations and institutions including those for local tenure arrangements to be considered in the design of suitable interventions for a new community-based natural resources management project.

Purpose: The purpose of this study is to answer the following questions related to land and resource tenure and local level resource planning and management in Senegal.

1. What roles do local institutions play in administering land and resource tenure rules and regulations? What kinds of tenure rights do local institutions retain over farm lands and common propoerty resources such as forests and grazing lands? What kinds of legislative reforms are indicated to ensure a more appropriate distribution of tenure rights among the state, local institutions and farmers?

2. What agencies and organizations (GOS, NGO or local*) have been working with local level resource planning? What is the length of time of involvement and scope of the efforts undertaken?
2. What have been the principal constraints to local level resource planning and management? How have sucessful agencies/institutions overcome these obstacles or mitigated their effect(s)?

3. What types of resource management practices have been undertaken at individual, village or communaute rurale level? What instigated the adoption of these practices? (village initiation, response to project assistance, perceived threat?)

4. What lessons learned can be developed from these interventions? What recommendations or design considerations are evident from a review of this experience?

5. What is the current institutional and managerial capacity of the CR's? What is needed to strengthen their efforts? What organizations are best suited to carry-out institutional strengthening activities in resource management?

6. How well are the existing and planned resource management statutes understood at the village level? What constraints and opportunities exist to enhance understanding of the legislation?

* these would include Groupement d'Interet Economique (GIEs), rural associations, religious groups, and/or immigrant development committees2. What have been successes and failures of each agency/organization as reported by them? as reported by the beneficiaries?

Methodology: The study team will field a group of U.S. and local researchers to identify five to eight representative sites within USAID/Dakar's project zone (corresponding roughly to the southern half of the country where reliable rainfall of a minimum of 400 mm is received in 4 out of 5 years) where some level of resource management planning has taken place or is underway. Senegalese members of the study team will be drawn either from Senegalese Universities (the Institut de Science de l'Environment, University of Dakar, for example) or from local consulting groups.

The study team will confer with representatives of Government of Senegal (GOS) agencies associated with resource management planning activities in identifying suitable sites and in developing the study design. Such agencies will include but not be limited to the Ministry of Interior's Centre d'Expansion Rural Polyvalent, ENEA (Ecole Nationale d'Economie Appliquee); ENA (Ecole National d'Administration), and others as appropriate. The team should also confer with Non-Governmental Organizations (Foundation Adenauer, and ENDA for example) in the conduct of this work. Finally, the team would confer with representatives of other donor projects including the World Bank funded PICOGERNA.

The study team will review existing literature, identify sites, and develop a research design and action plan for the conduct of the study. The design and action plan would be submitted to USAID for approval before the start of the study. A U.S. project leader will assist in the initiation of the study including the conduct of the first several rapid rural appraisals to ensure that the study is well-founded. The Project Leaders will also review progress of the study on a periodic basis, visit the field at least twice during the study, and participate in the completion of the analysis and the presentation of the findings to USAID/Dakar. Field work will be carried out by a Senegalese team consisting of two researchers and two research assistants. The researchers will initiate the study by forming a rapid rural appraisal (RRA) team to identify and characterize the village study sites. A one week per village RRA is planned. Funding has been provided for additional specialized local expertise which might be required in the conduct of the study or in the completion of the study report.

Reporting: The study team will provide 5 copies of the study design and action plan for USAID's review and approval within 15 days of commencing field activities in Senegal. One interim report will be submitted midway into the field work. A draft final report will be submitted within 21 days of the completion of the contract. Ten copies of a final report will be submitted, in English and French, within 45 days of the receipt of USAID's written approval of the draft report.

II. Calendar of Research Activities

February - December, 1992

Activity	Date	Purpose	Participants
PLANNING WORKSHOP	April -10 Days	Planning Research Program -Problem Analysis -Objectives -Methodology -Research Design -Workplan -Budget -Site Selection	Land Tenure Center -Freudenberger Ecole Nationale d'Economie Appliquée -Gueye Institut des Sciences de l' Environnement -Sambou UER de Sciences Juridiques -Traoré
LAND TENURE BIBLIOGRAPHY	February to December	Literature Review	Land Tenure Center Institutional Collaborators

FIELD RESEARCH	June to November	Collection of Data for Case Studies in Major Agro-Ecological Zones -Senegal River Valley (Mbane) -Sylvo-Pastoral Zone (Mbeuleukhé) -Peanut Basin (Fandène) (Dankh Sène) -Niayes (Niacoulrab) -Agro-Sylvo-Pastoral Zone (Dindéfello) -Casamance (Pidiro)	Institutional Collaborators -ENEA -ISE -UER de S.J. Institutional Affiliates ISRA CERP USAID Land Tenure Center
CASE STUDY ANALYSIS WORKSHOP	Late October -1 Week	Review Case Studies Plan Structure of Final Report Formulate Policy Recommendations Prepare Saint-Louis Conference Papers	Institutional Collaborators -ENEA -ISE -UER de S.J. Land Tenure Center
CONFERENCE ON "NATURAL RESOURCE MANAGEMENT BY LOCAL COLLECTIVITIES"	November 3-5	Themes: -Decentralization and Natural Resource Management -Local Collectivities and Natural Resource Management -Regionalization and Natural Resource Management	1) Conference Organizers: -UER de Sciences Juridiques -Land Tenure Center -ReMAPS Institutional Collaborators 2) Conference Participants: -60+ conferees

USAID "ReMAPS" Workshops	June August December	1) Fandène Case Study 2) Discussion of the Institution of the Rural Community Council 3) ReMAPS Conclusions and Recommendations	USAID/Senegal Mission Staff

III. Case Study Research Objectives

I. Inventaire des Ressources (humaines et naturelles)

1. Populations et historique

   a-Taille
   b-Structure par
      age
      sexe
      ethnie, croyances
   c-Histoire du peuplement
   d-Structure sociale et pouvoir

2. Ressources Naturelles (sol, eau, animaux, végétaux, et leur évolutions

   a-Ressources existantes
   b-Ressources disparues
   c-Ressources nouvelles
   d-Causes et conséquences de la dynamique de l'évolution des ressources

II. Pratiques de Gestion des Ressources Naturelles

1. Identifier les activités productives

   a-Identification des activités agricoles et extra-agricoles
   b-Evolution des ressources agricoles et extra-agricoles
   c-Causes et conséquences de l'évolution des activités productives dans la gestion des ressources naturelles

2. Identifier les institutions locales et les modes de gestion des Ressources Naturelles: identification et évolution

   a-Individus
   b-Institutions qui gèrent
   c-Instituts qui présentent un potentiel

3. Faire l'historique des projets de planification locale participative

   a-Historique et évolution des projets de planification participative :
      -au niveau national
      -au niveau local

4. Etudier les politiques de mise en valeur (Etat/population, bailleurs de fonds; ONG/AVD, privée)

a-Evolution des orientations au niveau national
b-Evolution des activités de mise en valeur au niveau local

5. Identifier les contraintes liées à la gestion des ressources naturelles

a-Contraintes physiques ou écologiques
b-Contraintes organisationnelles
c-Contraintes économiques/culturelles
d-Contraintes politiques

III. Adéquation entre Pratiques Locales et Réglementation Etatiques

1. Analyser la réglementation disponible en matière de gestion des ressources naturelles

a-Historique des concepts (domaines, classements, etc..)
b-Inventaire et historique (Lois/décrets/circulaires/ arrêtés)

2. Etudier la compétence des communautés rurales dans la gestion des ressources naturelles

a-Délibérations sur affectations et désaffectations des terres
Nombre/bénéficiaires/victimes
b. Règlements des conflits sur la gestion des ressources naturelles
c-Règlement sur feux de brousse et parcours de bétail
d-Projets de développement local mis en place par les communautés rurales

3. Identifier les modes d'appropriation et gestion des ressources naturelles (droits d'usage)

a-Détenteurs des ressources?
b-Droits d'usage (formalisés par l'Etat; coutumiers)
c-Modes de faire valoir

4. Etudier la dynamique des conflits sur la gestion des ressources naturelles (population contre population; état contre population; catégories sociales)

a-Types de conflits, nombre, causes, contextes

b-Instances de règlements des conflits

c-Processus de récemment des conflits

IV. Recommandations

1. Formuler des Recommandations précises en vue d'améliorer les mécanismes et appuis

   Lois
   Institutions
   pratiques:
   - a-locales
   - b-par les structures extérieures (Etat, ONG, etc...)

2. Formuler des recommandations précises à l'intention de l'USAID/Sénégal
   - a- politiques
   - b- programme d'action

IV. Researchers and Institutions Involved in ReMAPS Case Studies

Ecole Nationale d'Economie Appliquée

Bara GUEYE (Principal Researcher)
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Annex V:

Partial List of Environmental Legislation

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The following list indicates some of the laws, decrees and ministerial circulares pertaining to environmental issues in Senegal. This list is not exhaustive, but only indicative of the range and complexity of environmental legislation.

The legislation listed and referenced in the Journal Officiel du République du Sénégal (copies held in the National Archives of the Building Administratif) are the following:

National Domaine 105

Environment 105

National Land Law 105

Community Councils 106

Investments 106

Continental Fisheries 106

Water 107

Forests 107

Pastoralism 107

Wildlife 108

Mines 108

National Domaine

Loi no. 76-66 du 2 juillet 1976 Portant Code du domaine de l'Etat (Journal Officiel du 20 septembre 1976, p. 1478 - 1486).

Décret no. 81 557 du 21 mai 1981 Portant application du Code de Domaine de l'Etat en ce qui concerne le domaine privé (Journal Officiel, 5 septembre 1981)

Environment

Loi no. 83 du 28 janvier 1983 Portant Code de l'Environnement (Journal Officiel, avril 1983. p. 324-332)

Arrêté ministériel no. 50868 FM -MDR en date du 30 avril 1971 créant la Commission nationale de l'Environnement (Journal Officiel no. 4175 du 17 juillet 1971, p. 698).

National Land Law

Loi no. 64-46 du 17 juin 1964 relative au domaine national (Journal Officiel du 11 juillet 1964, p. 905-906)

Décret no. 64-573 du 30 juillet 1964 fixant les conditions d'application de la loi 64-46 du 17 juin 1964 relative au domaine national (Journal Officiel du 29 août 1964, pp. 1123-1126)

Décret no. 64-574 du 30 juillet 1964 Portant application de l'article 3 de la loi 64-46 du 17 juin 1964 relative au domaine national, et autorisant à titre transitoire, l'immatriculation au nom des occupants ayant réalisé une mise en valeur à caractère permanent. (Journal Officiel du 5 septembre 1964, pp. 1167 à 1169).

Décret no. 66 -858 du 7 novembre 1966 Portant application de l'article 5 de la loi no. 64 - 46 du 17 juin 1964 relative au domaine national (Journal Officiel du 19 novembre 1966, p. 1518).

Loi no. 76-67 du 2 juillet 1976 relative à l'expropriation pour cause d'utilité publique et aux autres opérations foncières d'utilité publique (Journal Officiel du 28 juillet 1976, p. 1118).

Décret no. 77-563 du 3 juillet 1976 relative à l'expropriation pour cause d'utilité publique et aux autres opérations foncières d'utilité publique (Journal Officiel du 30 septembre 1977, p. 990 et s.).

Community Councils

*Décret no. 72-1288 du 27 octobre 1972 relatif aux conditions d'affectation et de désaffectation des terres du domaine national comprises dans les communautés rurales, modifié par le décret no. 80-1051 du 14 octobre, 1980. (Journal Officiel du Sénégal du 18 novembre 1972, p. 1894)

*Loi no. 72-25 du 19 avril 1972 relative aux Communautés rurales. (Journal Officiel 13 mai 1972, p. 755)

*Loi no. 80-14 du 3 juin 1980 abrogeant et remplaçant certaines articles de la loi no. 72-25 du 19 avril 1972 relative aux Communautés rurales. (Journal Officiel 20 septembre 1980, p. 1102-)

Décret no. 80-1051 du 14 octobre 1980 modifiant le décret 72-1288 du 27 octobre 1972 relatif aux conditions d'affectation et de désaffection des terres du domaine national comprises dans les Communautés rurales (Journal Officiel du 8 novembre 1980, p. 1298)

Décret 87-720 du 4 juin, 1987 transférant les zones pionniers en zone du terroir.

*Loi no. ??? de 25 septembre, 1990 modifiant la loi no. 72-25 du 19 avril, 1972 relative aux Communautés rurales

Décret no. 70 - 445 du 20 avril 1970 Portant création et organisation du'un comité de coordination en matière de formation rurale (Journal Officiel du 9 mail 1970, pp. 454-455)

Décret no. 73 - 724 du 6 août 1973 Portant création du Conseil national de développement des collectivités (modifié par le décret no. 74- 208 du 5 mars 1974)

Décret no. 72 1390 du 4 février 1972 Portant réorganisation des centres d'expansion rurale (Journal Officiel no. 4267 du 23 décembre 1972, p. 755)

Investments

Loi no. 87-25 du 18 août 1987 Portant Code des Investissements (Journal Officiel du 29 août 1987, p. 5190)

Continental Fisheries

Loi no. 87-27 du 18 août 1987 Portant Code de la pêche maritime. (Journal Officiel 19 septembre 1987, p. 5180).

Décret no. 76 - 853 du 24 juillet 1976 fixant la dimension des

mailles et filets en usage dans les eaux sous-juridiction Sénégalaise

Water

Loi no. 81-13 du 4 mars 1981 Portant Code de l'eau. (Journal Officiel du 11 avril 1981, p. 411 - 418).

Loi no. 83-71 du 5 juillet 1983 Portant Code de l'Hygiène (Journal Officiel du 6 août 1983, p. 692-700).

Forests

*Loi no. 74-46 du 18 juillet 1974 Portant Code Forestier, (Parti Législative).

*Décret no. 65-078 du 10 février 1965 Portant Code Forestier (Partie Réglementaire).

Décret no. 71 - 411 du 14 avril 1971 Portant classement dans le domaine forestier et création du parc national des oiseaux du Djodj (Delta du Fleuve Sénégal) et d'une zone limitrophe. (Journal Officiel no. 4163 du 8 mars 1971, pp. 471-472.

Pastoralism

Décret no. 8110 du 1 novembre 1953 Portant création de la "Réserve Sylvo-Pastoral des Six Forages."

La Police Sanitaire
-62-258 de 5 juillet, 1962. Journal Officiel, 1962: 1241.

Les Parcours
-Décret 80.268/MDR/DSPA de 10 mars, 1980 Portant organisation des parcours du bétail et fixant les conditions d'utilisation des pâturages. Journal Officiel, 1980: 443.

La Mise en Fourrière
-Décret 86.275 de 10 mars, 1986 Portant réglementation de la mise en fourrière des animaux errants.

Les Camilidés
-Décret 86.320 de 11 mars 1986 réglementant l'élevage, l'introduction, la transhumance et l'utilisation des camélides au Sénégal.

-Arrêté Portant application du Décret 86.320 relatif à l'élevage, l'introduction, la transhumance et l'utilisation des camélidés au Sénégal.

Circulaire interministérielle visant à la création et la

généralisation des comités de gestion de forages hydrauliques en milieu rural. 1 janvier, 1984.

Wildlife

Loi no. 86-04 du 24 janvier 1986 Portant Code de la chasse et de la protection de la faune (partie législative). (Journal Officiel du 25 janvier 1986, p. 39-43).

Décret no. 86-844 du 14 juillet 1986 Portant Code de la chasse et de la protection de la faune (Partie réglementaire). (Journal Officiel du 10 janvier 1987, p. 14-27).

Mines

Loi no. 88 - 06 du 26 août 1988 Portant Code minier (Journal Officiel du 12 novembre 1988, pp. 581-595)

Décret no. 89 - 907 du 5 août 1989 fixant les modalités d'application de la loi no. 88-06 du 26 août Portant Code minier (Journal Officiel no. 5344 du 14 avril 1990, pp. 195-206)