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URBAN FUNCTIONS IN RURAL DEVELOPMENT:
FINAL REPORT OF A FIELD DEMONSTRATION
IN
FADA N'GOURMA AND KOUDOUGOU REGIONS
OF
UPPER VOLTA
1978 - 1980

June 1981

Office of Urban Development
Bureau for Development Support
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**URBAN FUNCTIONS IN
RURAL DEVELOPMENT,
UPPER VOLTA**

FINAL REPORT

AID/SOD/PDC-C-0154

Prepared For:

**Office of Urban Development
Development Support Bureau
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Washington, D.C.**

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INTRODUCTION

13 This Final Report of the Urban Functions in Rural Development (UFRD) Project in Upper Volta has been produced under AID Contract AID/SOD/PDC-C-0154 with Practical Concepts Incorporated (PCI). It has been prepared by Simon M. Fass, Consultant, of the Hubert H. Humphrey Institute of Public Affairs, University of Minnesota, with the collaboration of Emil Pare, UFRD Project Director, Ministry of Rural Development, Government of Upper Volta.

As stipulated in the contract's Statement of Work, this report is a synthesis, integration and summary of studies and reports previously issued under the UFRD project. It includes, also in accordance with the contract, an analysis of questionnaire data obtained in a markets survey and an analysis of regional scalograms prepared by the UFRD project.

The need for preparation of this particular report derives from two related factors. The first is administrative. Briefly, the UFRD project incurred some delays at its very beginning which were not adequately compensated for by the time the project ended in March, 1980.¹ This resulted in a lack of time for full completion of certain technical activities called for in the project, such as examination of market questionnaires, scalograms, preparation of certain kinds of maps, etc. It also resulted in a lack of ample time to prepare a single integrated report of project findings; in particular a report which reflects fully the range of activities undertaken by the team, including the obtaining of significant secondary data. As it happened, with the help of a short extension to June, 1980, three different reports were produced, each of which addressed a different dimension of the project.²

1/ For a fuller explanation of the delay and related factors, see PCI (1980).

2/ These reports were: Mead (1980(a)), Mead (1980(b)) and Haute Volta (1980).

There was a need, therefore, to pull these together into a single coherent document which would more clearly represent the nature of the project team's efforts.

The second factor is technical, and has to do with certain misunderstandings about the intent and purposes of the project. Some confusion developed, for example, from the name of the project itself, i.e., "Urban Functions in Rural Development." Also, and perhaps more important, there was some confusion regarding the methods associated with the UFRD concept. These technical dimensions were not emphasized sufficiently in the three project reports identified above, and thus there was a need for doing so in a document which synthesized the major outcomes of the UFRD project's technical undertakings.

To clarify these methodological matters for present purposes, it should be clearly understood that since Upper Volta is predominantly rural, the term "urban" refers to villages. Sometimes these villages are large enough to be called "towns," but whether large or small the reference is made to places which provide various important public and private, social and economic services for populations in surrounding areas. These services are the "functions" which constrain by their absence, or which assist by their presence, the economic and social well-being of the rural populations which depend on them.

The basic presupposition of the UFRD concept is that upgrading and strengthening the effectiveness of functions located in central villages or towns can yield corresponding effective improvements in the developmental progress of the villages themselves, and of the population living in areas surrounding them. Such upgrading and strengthening can take the form of provision of new functions, improvements to existing functions, or a combination of both. Clearly, this is not any different than suggesting that improved educational services or improved availability of credit would, more often than not, be helpful if implemented in an appropriate fashion. However, where the UFRD

concept and method differs from more conventional "sectoral" approaches is that it does not presuppose which of the "functions" would have the most significant effects, does not presuppose which of the effects are most appropriately called "significant" and does not presuppose that the same set of "functions" can be, or ought necessarily be, universally applied in all places. The concept and its methods assume from the beginning that in any region there is heterogeneity and that social, economic and environmental circumstances can vary considerably from one place to another. Thus, the kinds of functions which would be appropriate to add or strengthen in one place might not necessarily be the same in another. In other words, the UFRD concept is "place" specific rather than "sector" specific, and represents a kind of "integrated" or "multi-sectoral" approach to rural development.

In application, the UFRD methods address four basic questions: (1) What is where and why?; (2) Is "it" perceived as important?; (3) How well does "it" do what "it" is supposed to do?; and (4) How can "its" effectiveness be improved under the constraints affecting "it"? To answer such questions, implementation of a UFRD project requires extensive visits to and discussions in the principal central villages and towns (i.e., those having significant functions) of a region; the obtaining of a grounded understanding of the development priorities of local populations (an implicit local participation dimension); the integration of such expressed priorities with those contained in the governmental agenda; and the development of specific program or project proposals which simultaneously respond to the desires of local people, the objectives of the government which represents their collective interest and the socio-economic realities in which both entities find themselves. This, in brief, is the generic nature of the UFRD project as it was implemented, and as it supposed to be implemented, in Upper Volta. The synthesized results of all these undertakings is the substance of this report.

The organization of this report follows approximately the sequence of activities undertaken by the UFRD project team. Chapter One presents a brief overview of certain characteristics of Upper Volta which are of particular pertinence

to the project. These aspects are the state of the economy, the nature of agricultural activity which underpins the economy and government policy with respect to it, and the size and distribution of the population. The description provides some sense of the extremely limited economic resources of the public and private sectors of the nation, and also some indication of the meaning of the term "urban" in an Upper Volta context.

Chapter Two begins with an overview of selected characteristics of the eastern region, one of the two regions where the UFRD project was put into practice. This overview contains a discussion of the ecology, agricultural activities and the distribution of the population across several hundred villages in the region. Within this regional perspective, the chapter then delves into the "heart" of the technical activities pursued by the project; the examination of the qualitative and quantitative characteristics of the functions of the region. The functions dealt with include transportation, water supply, education, health services, administration, agricultural services, small-scale enterprise and markets. Several of these are then integrated to present a picture of the hierarchical distribution of functions across a set of central villages, or central places, within the region. Towards the end of this last discussion it is noted that local initiative in self-help activities, particularly activities which provide or sustain the operation of central village functions, should themselves be regarded as "functions" of a sort. Indeed, given the description of the poor state of repair and operational effectiveness of most of the functions described previously, and the practical impossibility of hoping for vastly improved public fiscal resources to improve them, the importance of promoting more effective local initiatives becomes quite apparent.

In Chapter Three attention shifts to the center-west region, and the treatment of the subject closely follows the pattern laid out in the previous chapter. Discussion of the center-west region is, however, considerably more brief than that of the eastern region. One reason for this is to avoid needless repetition. The characteristics of functions in both regions are

by and large the same, and the descriptions of operations and effectiveness in the east apply as readily in the center-west. The other reason for placing more emphasis on the east is that it is the prime focus of USAID attention in Upper Volta. It therefore seemed appropriate to carry the same emphasis in this report. It should be noted, however, that the UFRD project places equal emphasis on both regions.

Chapter Four presents a summary of the project's findings and draws some conclusions about the state of "urban functions" in both regions. It then suggests two courses of possible action to strengthen and improve the services provided by the functions. One is the apparent simple provision of funds to repair and upgrade everything. This would achieve several short-term benefits, but it is argued that over the long-term such an approach could only culminate in a deterioration of the services and eventually things would return to their present state. An alternative course of action, aimed at more long-lasting effects, is then put forward. Its premises are that what is needed today is maximization of use of local resources, human and material, in the maintenance, supply and operation of services provided at a local level. It is argued that if local communities which benefit from services, usually the populations within a canton rather than a single village, can be induced to take on an increased share of the management and finance of the services, then considerable progress can be made in the longer-term towards strengthening the regional system of service functions. The argument is predicated on examples of effective local government institutions in Upper Volta's past, in neighboring countries and in developed countries.

Following through as far as feasible with the second course of action described, Chapter Five presents several recommendations for methods of bringing about enhanced local governance capabilities. The term "governance" is emphasized because it appears premature, and somewhat presumptuous, to suggest formal local "government" institutions at such an early stage. Though the government has made decentralization of responsibility an explicit element of its development policy, it is not certain at present whether this extends as far

as the concept of local or cantonal government. Nevertheless, whatever the name ascribed, the general principle is the same insofar as improving the underpinnings of urban functions and the effectiveness of the services they provide; and the chapter suggests why, where and how to initiate activities in this general direction.

In a concluding postscript, Chapter Six identifies two USAID-supported projects with components quite similar to certain aspects of the recommendations put forward by the UFRD project. The linkages between all three projects are briefly identified, as are the efforts which have been undertaken to coordinate them and thereby have each build on the experience of the other in a progressive manner.

UPPER VOLTA¹

CHAPTER ONE

21 Upper Volta is a landlocked country of the Sahel covering an area of 274,000 kilometers and containing perhaps 6.4 million people today. It is bordered on the north and west by Mali, on the east by Niger and on the south by the coastal nations of Benin, Togo, Ghana, and the Ivory Coast. Its principal means of land communication to the outside are by road to the port of Tema (Ghana), 900 kilometers away, and by rail to Abidjan (Ivory Coast).

A. THE ECONOMY

With an average GNP of US \$160 per inhabitant (1978), Upper Volta is a poor country, and has been classified by the United Nations as one of the 25 least developed countries of the world. Its economy is a traditional one based on agriculture; which sustains 80% of the country's populace, which provides about 43% of its GDP and which generates 90% of its accounted-for exports. Secondary and tertiary activities contributed 21% and 36% respectively to the GDP. This last figure was estimated to have increased by 7% in 1977 (in constant prices) and by 4% in 1978.

The basic constraint on the country is its very limited resource endowment. Although the economy depends almost entirely on agriculture, it has limited rainfall (500 mm to 1000 mm concentrated on 3 to 5 months of the year) on generally shallow and infertile soils. Its domestic markets are not particularly important in the greater scheme of things, and export markets are relatively inaccessible due to the landlocked position of the country. Other than agriculture, only government and commerce offer alternative employment

^{1/} Compiled from FAO (1980), Haute Volta (1979(c)) and World Bank (1980(b)).

possibilities with the country. Not surprisingly, it has been estimated that 20% of the national population, between 1 and 1.5 million people, have emigrated.

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Up until 1975 the government had accumulated substantial foreign reserves as a result of a strict policy of fiscal austerity. Since then, however, these reserves have had to be used to offset growing deficits in the balance of trade, which rose to FCFA 37.7 billion in 1977 and which could only be partially covered by private transfers from emigrants and public transfers through international development assistance.

The principal exports of Upper Volta include livestock and their byproducts, oil seeds (e.g. groundnuts) and cotton fiber. Principal imports are capital equipment, industrial raw materials, foodstuffs and constantly increasing quantities of petroleum and chemical products. France and the Ivory Coast are the country's principal trading partners. Natural and other resources being insufficient to offer a potential base for industrialization, Upper Volta must continue to depend on agriculture as its principal source of foreign exchange.

The national budget in 1979 was FCFA 35.7 billion, of which 95% was covered by taxes, and represented a 17% increase over the 1978 budget. Since 1975 the growth of public expenditures has been considerably higher than that of the GDP, reflecting the government's attempt to stimulate economic development and to respond to the demand of social services. Inflation, measured as a cost of living index for a local family in Ouagadougou, was 32.9% in 1977 and 20.5% in 1978.

B. AGRICULTURE

Most of Upper Volta's rural population lives and works outside the market economy, pursuing traditional methods of agricultural production. Sorghum and millet are the staple crops, occupying some 85% of land under cultivation and constituting about 75% of the total value of agricultural output (see Table I-1). Most of this is consumed on the farm, leaving only about 10%

23 for sale in the market. Besides these cereals, the majority of producers also cultivate small areas of groundnuts. This is presumably a "cash" crop, but much of it is also subject to autoconsumption. The most important cash crop in the country is cotton, the production of which has increased markedly from about 2,000 tons in 1960 to over 70,000 tons today. The combined value of all crop production today is estimated at about 24% of GDP (see Table I-1).

Livestock raising occupies about 6% of the population and contributes about 15% of GDP (see Table I-1). It is an activity carried out in a traditional nomadic manner and suffers from several serious constraints. These include repeated droughts, overgrazing, insufficient water resources and growing competition for land with subsistence cropping activities. The herd is presently estimated at about 7 million head (2.6 million cattle, 4.2 million sheep and goats and .5 million pigs). Nevertheless, as indicated above, this subsector represents the most important source of export earnings.

In general it would appear that since independence in 1960 agricultural output and productivity have been relatively stagnant. This has been attributed in part to the drought period of 1971-73, and in part to a limited absorption capacity in the sector. Greatest progress over the past 20 years has occurred with respect to the production of cotton, as mentioned, but this activity touches on the lives of no more than 5% of the population. Besides the development of limited areas of irrigated gardening, there have been very few changes with regard to techniques of rainfed agriculture. This is to some degree reflected in a constant yield of cereal production between 200 and 220 kilograms per capita during the last 10 years (see Table I-1); and this is the source of livelihood of the vast majority of the rural population.

The spatial distribution of agricultural activities is quite uneven, and there is a striking imbalance between the distribution of the population and the distribution of natural resources. The areas of the Mossi plateau, for example, which occupy the central portion of the country, have average densities of close to or over 100 inhabitants per square kilometer of arable land, or about one hectare of arable land per person (see Table I-2). At the same time (and as a result of overpopulation) that land has been subjected

to problems of degradation and loss of fertility, and thus today has very low potential. It has been estimated that the area can ideally sustain no more than 40 habitants/square kilometers using traditional methods of cultivation.

By way of contrast, the south, southwestern and eastern portions of the country have densities of 50 habitants/square kilometers or less; and have generally more favorable soil and rainfall characteristics.

Overall, the agricultural sector does not produce enough to satisfactorily sustain the individuals who are active in it. Since 1975 Upper Volta has had to become a net importer of cereals. In 1977 imports were 52,000 tons of which 21,000 came as food aid. Further food aid amounted to 75,000 tons, 47,000 tons and between 18 and 26,000 tons in the subsequent three years. If it were possible to arrange satisfactory levels of rainfall then one could readily hope for a self-sufficiency in general subsistence production. However, with recurrent droughts, such a possibility would be highly unlikely.

Within this general context, the principal objectives of the Government's Five-Year Plan (1977-81) have aimed, among other things, at:

- Increases in agricultural production towards self-sufficiency in basic food crops;
- Improving peasant working techniques by extension;
- Promotion of integrated rural development;
- Strengthening of secondary centers to act as development centers for rural development;
- Extension of the communication system, especially secondary roads in areas with agricultural potential;
- Redistribution of population and investment towards new lands;
- Reduction of underemployment by expansion of cash cropping, labor-intensive industry and by extension of human capital formation projects; and
- Preparation of Voltaics for roles addressing the needs of development.

5 To implement the plan, the Government has adopted a relatively decentralized institutional structure through creation of Offices of Regional Development (ORDs). There are eleven of these located throughout the country; one in each of nine administrative regions or departments, and two in the Department of Haut-Bassins. Each ORD has a director with responsibility for coordinating the activities of the various public agencies in a region (e.g., education, health, public works), and for implementing the development activities of the Ministry of Rural Development, of which it is a part. In general, each ORD is sectorally broken down into various technical units (e.g., credit, extension, animation, etc.), each addressing different components of the overall ORD program; and is spatially broken down into sectors and subsectors covering almost all villages of a Department and linking them to each ORD headquarters.

The distribution of ORD effort across the country to some extent reflects the priorities of the Five-Year Plan. As indicated in Table I-2, whereas the number of households per extension agent are relatively high in departments covering the Mossi Plateau (ranging from 475 to 830), the ratios are far less in the south, southwestern and eastern areas (ranging from 210-340 households per agent). More effort is apparently being put in areas with higher potential.

Nevertheless, the activities of the ORD are in general constrained by low fiscal resources. Per resident expenditures can vary from CFAF 140 to 1150 per year, and most of that tends to be reserved for personnel expenditures (Table I-2). Where this is the case, as in the Bougouriba and Fada N'Gourma ORDs, the additional non-personnel resources usually reflect the addition of heavy support from international assistance organizations.

The rural development potential of Upper Volta is thus severely constrained by natural resource endowment factors, and by corresponding limited fiscal resources to apply to that endowment. Thus, project or program selections tend to be judged by a severe set of criteria relating to a proposal's potential contribution to value-added, to its potential direct and indirect impact on the national economy and to its ability to engage only the most modest of recurrent costs.

C. POPULATION

With an estimated population of 6.1 million in 1980, Upper Volta is the most densely populated country in the Sahel. Gross population growth is approximately 2.1% annually, but because of emigration to neighboring countries, the net growth figure is closer to 1.7%. As noted above, population density varies considerably from one area to another. The inability of internal migration to generate a more balanced distribution has been explained by two things. First, migration to fertile river valleys has been limited by the presence of onchocercosis (river blindness). Second, migration between areas has been constrained by historical factors associated with claims by different ethnic groups to various segments of the country. There are 10 major such groups including the Mossi, Bissa, Gourmantche, Bobo, Mandingo, Gourounsi, Senoufo, Lobi-Dagasi, Fulani-Tuareg and "other" composed of Marance, Songhai and Hausa. 26

With internal migration limited, it is not entirely surprising that emigration to other countries has a strong tendency in Upper Volta. It is estimated that each year some 450,000 citizens move out of the country; principally to the Ivory Coast and Ghana. Most leave for purposes of seasonal employment only, though between 50,000 and 100,000 become long-term emigrants each year.

Upper Volta's population, as mentioned, is essentially rural with 91 percent of the resident population living in some 7,200 rural villages (see Tables I-2 and I-3). This proportion is one of the highest in Africa. If one adds to this the semi-urban population who work mainly in agriculture, one obtains an even larger proportion. The semi-urban areas are the headquarters of subprefectures and most often are little more than large villages with essentially rural characteristics. Only five towns can reasonably be considered as "urban." They are Ouagadougou, the capital city, with a resident population of 172,700 in 1975, Bobo-Dioulasso, with a population of 115,000; Koudougou, with a population of 37,000; Ouahigouya with 26,000; and Banfora with 17,000. Together, the population of the five centers represents only 6.5 percent of the total population (see Table I-3). Ouagadougou alone has 48 percent of this urban population, and Bobo-Dioulasso 30 percent.

21 While the country is not urbanized, in recent years the urbanization rate has been rapid. Table I-4 gives the growth rates of Ouagadougou and Bobo-Dioulasso during 1960-75, which attracted more people than the other towns. The average annual growth rates are higher than the natural increase rates for the same period. The difference is due to net migration (immigration and immigration).

Bobo-Dioulasso, located on the intersection of trade routes between the Ivory Coast and Mali has been a center of foreign immigration (Maliens, Ivorians, and Guineans). Its location in a relatively rich part of the country allowed it to develop economically. For a long time, it was the only city in Upper Volta with small industries. Ouagadougou, although the capital of the Mossi empire, remained a big village for many years. With the political and administrative changes that have occurred since 1958, it was firmly established as the administrative capital and its population began to expand with the introduction of small factories. Although these two cities cannot be compared in size with other large African cities, their growth rate has been very high in recent years.

The growth of other cities and semi-urban localities has been mainly due to natural increase. It was found in the 1961 demographic survey that the population of semi-urban localities was growing faster than that of the rural areas. Fertility was as high in the semi-urban localities as in the villages but mortality was much lower (life expectancy at birth in rural areas was 32.3 years for both sexes against 41.5 years in semi-urban localities). There are very few industries in these towns and according to the national socio-economic plan, few will be added in coming years. For the purposes of the UFRD project then, the concept of "urban" in the eastern and center-west regions essentially means the same thing as large villages of essentially rural and agricultural character.

TABLE I-1: PRODUCTION TRENDS IN AGRICULTURE, UPPER VOLTA, 1960 - 1980

YEAR	GNP (billions of current CFAF)	GDP (billions of current CFAF)	CROPS		LIVESTOCK		COTTON			GROUNDNUTS			SESAME		
			Total Value (CFAF)	% of GNP	Total Value (CFAF)	% of GNP	Area (Ha X 1000)	Output (MT X 1000)	Yield (Kg/Ha)	Area (Ha X 1000)	Output (MT X 1000)	Yield (Kg/Ha)	Area (HA X 1000)	Output (MT X 1000)	Yield (Kg/Ha)
1960	57.5	50.0	-	-	-	-	22.9	2.3	111	-	-	-	-	-	-
1965	71.8	61.7	-	-	-	-	49.7	7.5	140	130	73	562	25	6.0	240
1970	89.4	79.3	-	-	-	-	80.6	23.5	290	140	68	484	26	6.3	238
1975	134.6	114.6	29.6	26	13.3	12	68.2	50.2	735	180	80	444	40	8.0	175
1980 ^{1/}	240.0	207.7	50.3	24	30.2	15	70.0	60.0	860	170	75	440	40	7.0	175

YEAR	GNP (billions of current CFAF)	GDP (billions of current CFAF)	SORGHUM			MILLET			CORN			RICE (Paddy)			PER CAPITA CEREAL PRODUCTION (Kg) ^{2/}
			Area (Ha X 1000)	Output (MT X 1000)	Yield (Kg/Ha)	Area (Ha X 1000)	Output (MT X 1000)	Yield (Kg/Ha)	Area (Ha X 1000)	Output (MT X 1000)	Yield (Kg/Ha)	Area (Ha X 1000)	Output (MT X 1000)	Yield (Kg/Ha)	
1960	57.5	50.0	908	411	453	615	195	317	149	75	302	54	30	560	160
1965	71.8	61.7	964	530	550	800	350	438	164	110	667	35	34	986	265
1970	89.4	79.3	1041	563	541	850	378	444	85	55	645	40	34	850	206
1975	134.6	114.6	1200	650	542	850	350	412	90	62	683	42	35	851	219
1980 ^{1/}	240.0	207.7	1000	650	650	900	400	444	90	60	665	40	35	875	201

Sources: Haute Volta (1979(a)), IMF (1979), World Bank (1980(a)), FAO and SOFITEX.

NOTES: ^{1/} IMF estimates.

^{2/} Sum of sorghum, millet, corn and rice (converted from paddy at 65%).

TABLE I-2: GENERAL CHARACTERISTICS OF AGRICULTURE

ORD	DEPARTMENT 1/	VILLAGES	AREA		RURAL POPULATION			DENSITY		AGRICULTURAL PRODUCTION				
		Number (1975)	Total (km ² X 1000)	Arable (%)	Total 1975 (X 1000)	Total 1980 (X 1000)	House- holds 1960 (X 1000)	Arable Ha per Rural Inhab. (1975)	Pop per km ² of Arable Land (1975)	MILLET/SORGHUM/CORN		PAIDDY	COTTON	
										MT X 1000 (1979)	kg/ Inhab. (1979)	MT X 1000 (1979)	Ha X 1000 (1979)	MT X 1000 (1979)
Douagadougou	Centre	994	22.0	34	762	830	83.0	1.0	103	180.7	237	1.7	2.7	
Koudougou	Centre-Ouest	647	26.3	31	740	807	80.7	1.1	92	119.4	161	2.1	5.8	
Kaya	Centre-Nord	706	21.6	28	626	683	68.3	1.0	102	112.9	180	1.5	6.5	
Yatenga	Nord	812	12.3	28	393	537	53.7	0.9	141	66.4	169	0.4	0.7	
Debdougou	Volta Noire	922	33.1	20	633	690	69.0	1.5	68	186.7	298	5.1	25.4	30
Koupela	Centre-Est	550	11.3	29	402	438	43.8	0.8	128	67.3	167	11.0	0.4	
Banfora	Haut Bassins	208	18.4	41	186	497	49.7	4.2	24	78.2	420	5.3	0.2	
Bougouriba	Sud-Ouest	1116	17.5	41	358	390	39.0	2.0	50	83.4	233	3.3	7.9	4
Bobo-Dioulasso	Haut Bassins	373	24.8	46	270	3/	3/	4.2	23	114.4	4/4	11.6	25.4	30
Faso N'Gourma	Est	644	50.0	31	403	439	43.9	3.8	26	92.0	2/8	5.3	0.7	0
Sahel	Sahel	449	36.9	27	354	386	38.6	2.8	36	38.7	109	0.0	0.0	0
TOTAL		7,229	274.0	33	5,127	5,696	569.6	1.8	57	1,144.9	223	47.2	77.8	75

CHARACTERISTICS OF AGRICULTURAL SECTOR, BY ORD, 1979

per of ord (1975)	AGRICULTURAL PRODUCTION CHARACTERISTICS												EXTENSION AGENTS		ORD RESOURCES (CFAP)	
	MILLET/SORGHUM/CORN		PADDY	COTTON		GROUNDNUTS		SESAME		OX TEAMS		CATTLE	Number (1979)	Per House- hold (1979)	Financing Per Resi- dent	Persnl Expen Per resident
	MT X 1000 (1979)	kg/ Inhab. (1979)	HT X 1000 (1979)	Ha X 1000 (1979)	MT X 1000 (1979)	Ha X 1000 (1979)	MT X 1000 (1979)	Ha X 1000 (1979)	MT X 1000 (1979)	Number (1979)	Inhab. per Team (1979)	Per Inhab. (1979)				
3	180.7	237	1.7	2.7	1.3	17.1	7.7	0.0	0.0	1,180	646	0.3	144	577	-	-
2	119.4	161	2.1	5.8	2.7	15.7	4.7	0.2	-	4,240	175	0.2	170	475	139	113
2	112.9	186	1.5	6.5	2.8	24.8	10.4	5.1	1.1	1,100	569	0.5	96	711	134	95
1	66.4	169	0.4	0.7	0.2	8.2	2.7	3.7	0.5	2,364	166	0.4	65	827	233	114
8	188.7	298	5.1	25.4	30.6	19.3	5.1	3.6	1.0	9,677	65	0.5	200	344	341	200
28	67.3	167	11.0	0.4	0.2	21.4	12.8	0.4	0.2	N/A	N/A	0.3	70	626	197	101
24	78.2	420	5.3	0.2	0.1	10.4	11.0	10.3	1.4	221	842	0.5	210	236	613	251
50	83.4	213	3.3	7.9	4.7	5.7	2.6	0.0	0.0	226	1,584	0.4	187	209	1,146	477
3	114.4	474	11.6	25.4	30.0	12.3	9.0	3.6	1.2	4,276	63	0.6	3/	3/	537	486
5	92.0	278	5.3	0.7	0.3	9.6	3.9	0.2	-	1,300	310	0.7	171	256	549	152
5	38.7	139	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	1.6	36	1,072	191	55
7	1,144.9	223	47.2	77.8	75.1	144.8	69.9	27.2	5.4	24,584	197	0.5	1,349	422	-	-

Sources: Haute Volta (1977), Haute Volta (1979(a)), Haute Volta (1979 (b)).

NOTES: 1/ The Department of Haut Bassins contains 2 ORDs: Banfora and Bobo-Dioulasso.

2/ Rural population estimates for 1975 vary slightly depending on the source of information used. Some of this variation may be attributed to differences between ORD and Departmental population estimates, some to the degree to which semi-urban populations have been ascribed rural-agricultural status, some to a reported degree of undercount in the 1975 census leading some sources to revise estimates upwards, some to a confusion between resident population (i.e., present in Upper Volta at the time of the census) and enumerated population (i.e., including emigrants no longer present but reported by resident family members), and some to the general unreliability of "data" gathered in countries like Upper Volta. As "exact" population figures are not particularly important for the purposes of this report, no effort has been made to reconcile the variation. Figures in tables and in the text are adopted as given from each reference source. Thus the populations for 1975, above, do not correspond exactly with those in Table I-3. Also, the former do not constitute the basis for projection of 1980 rural population and household estimates in the adjacent columns above.

3/ Figures included in total for Banfora ORD.

TABLE I-3: POPULATION DISTRIBUTION BY DEPARTMENT & BY RURAL, SEMI-URBAN & URBAN AREAS OF RESIDENCE, 1975

DEPARTMENT	HEAD- QUARTERS	AREA (Km ²)	POPULATION (in Thousands)				%
			Rural	Semi- Urban	Urban	Total	
Centre	Ouagadougou	21,952	763	9	173	945	16.8
Centre-Esti	Koupela	11,266	386	18	-	405	7.2
Centre-Nord	Kaya	21,578	613	19	-	632	11.2
Centre-Ouest	Koudougou	26,324	727	26	37	789	14.0
Est	Fada N'Gourma	49,992	394	13	-	407	7.2
Haut-Bassins	Bobo-Dioulasso	43,172	446	9	127	583	10.3
Nord	Ouahigouya	12,293	494	10	26	530	9.4
Sahel	Dori	36,869	347	7	-	354	6.3
Sub-Ouest	Diebougou	17,488	351	7	-	357	6.3
Volta Noire	Dedougou	33,106	604	31	-	636	11.3
TOTAL		274,000	5,125	149	363	5,638	100.0
%			90.9	2.6	6.5	100.0	

Source: World Bank (1980 (b)).

TABLE I-4: URBAN POPULATION GROWTH, 1960 - 1975
OUAGADOUGOU & BOBO-DIOULASSO

YEAR	OUAGADOUGOU		BOBO-DIOULASSO	
	Population	Average Annual Growth Rate (%)	Population	Average Annual Growth Rate (%)
1960	70,000	-	55,000	-
1966	77,500	1.7	-	-
1975	172,661	8.9	115,063	4.9

Source: World Bank (1980(b)).

THE EASTERN REGION

CHAPTER TWO

3f
The eastern region, as its name suggests, occupies the eastern portion of Upper Volta (Map 1). It is bounded by the Center-East and Center-North departments on its western edge, by the Sahel department on its north, by Niger on the east, and by Benin, Togo and Ghana to the south. Its major town, effectively a regional center, is Fada N'Gourma, which is linked to the rest of the country by the main Ougadougou-Niamey highway running through it. It is a large region, covering some 50,000 square kilometers, and with a population of somewhere of the order of 440,000, today it is a relatively underpopulated part of Upper Volta. It is also one of the relatively less developed areas of the country; as the description of the level of its rural services will show a bit further on.

A. PHYSICAL ENVIRONMENT¹

The region's 50,000 square kilometers of area is essentially a vast plain containing few contrasting topographic features. The highest elevation is in the Soula Hills, west of Coalla, in the north, with a peak of 437 meters. The lowest elevation is located where the Kpenbienga (Ouala) River reaches the border in the south at an elevation of about 138 meters (Map 2). These belong to two major physiographic systems in the region.

The Soula (437 m), Bilanga (398 m), and Dyomana (408 m) hills are part of a northern drainage system whose waters flow to the Niger River, descending to elevations of 244 meters for Bouli/Tyanbaro, 241 meters for Sirba, 230 meters for Bonsoaga, 209 meters for Dyamongou and 230 meters for Tapoa at the points where all reach the border between Upper Volta and Niger. The northern topographic system has a maximum range of elevation between the highest point (Soula) and lowest (Dyamongou) of about 228 meters.

^{1/} Mehretu and Wilcock (1979)

The peak of the southern system, which comprises the drainage basin ending in the Oti River in Togo, is in the "Bossouri" hills north of Arli which reach 384 meters. The lowest elevation is recorded for the lower reaches of the Kpenpienga (Ouale), south of Pama, at 138 meters. The range in elevation in the south are the Namounou escarpment (369 m), the Gobnangou range (365 m), and the Pama hills (353 m).

The drainage systems also reflect the general topographic characteristic of the region. Rivers flow in relatively flat river beds with considerable meanders along their courses. Almost all of them are characterized by poorly drained and swampy flood plains and bottom lands (bas fonds). Due to the difference in elevation between high and low points, the northern drainage system of the Niger, which has a higher range (228 m), has less of the features just mentioned than the southern system of the Volta which, with a lower range (138 m), has a higher incidence of poorly drained lowlands and swamps.

The northern drainage system consists of seven separate subsystems (drainage basins) which flow into the Niger. The largest and most important of these are the Souli/Tyanbaro, Sirba, Bonsoaga, Dyamangou and Tapoa. Together, the northern river basins comprise 56% of the area of the region and offer a means of living for about 65% of its population. All of the northern rivers are intermittent along their entire course within the region.

The southern system comprises four major drainage subbasins, all of which drain into the Pendjari on the southern border. The major rivers here are the Kourtiagou, Arli, Doubodo, Singou, and Kpenpienga (Ouale). Along with the Sansargou in Soudougou, the southern basins cover about 42% of the region's area. This system, however, contains only about 35% of the population and a good deal of the people of the region concentrate in the Kourtiagou, the upper reaches of the Kpenpienga (Ouale) and Sansargou in Soudougou. The Singou and Doubodo/Arli systems are very sparsely populated and much of their area is within partial or total national reserves.

31 Two important characteristics of the Volta tributaries in the region are that virtually all of them acquire continuous annual flow before they exit the region, and almost all of them have their headwaters contained within the region. The last, in fact, applies to all of the major rivers with the exception of the Bouli/Tyanbaro basin and the Sirba. This is an important dimension in the control of the development potentials of the river valleys.

The climate is dominated by its savanna and Sahelian marginal character where temperatures are generally high and rainfall is sparse and relatively unreliable. The region has four seasons based on temperature variations and two seasons of rainfall. March-April-May and September-October-November comprise high temperature seasons, the former of which usually contains highest recorded temperatures. Average temperatures around 33°C can be expected in the hot season. Two relatively cool seasons occur in June-July-August, which is also the rainy season, and December-January-February, corresponding with the sun's maximum declination, and also when the region is under the influence of continental air masses which bring the Harmattan. The latter brings the lowest temperatures, but with averages not below 25°C. Average maximum and average minimum temperatures of 39°C and 16°C respectively can occur in April and January respectively.

With regard to precipitation there are two more or less distinct seasons--a short rainy season in which June-July-August and September receive the bulk of the precipitation, and a long dry season. The length of the rainy season, of course, varies between the northern Sahelian margins where it is the shortest, and the southern savanna lowlands which experience not only more rainfall but receive it over a longer period. Three important factors stand out with respect to precipitation. First, the amount received is low. Amounts of precipitation vary between 1000 mm for locations like Pama and Madjoari in the south, and 600 mm for Coalla in the north. Second, the variability of precipitation is high and critical. The north, which could get about 900 mm of precipitation in any given year, can only count on 600 mm at a probability of 90%. The south is characterized by higher precipitation, but here again only 800 mm can be expected at a probability of occurrence of 90%. The third factor concerns the level of effective moisture that can be secured for use

by man, flora and fauna. Here again, not only is there an excessive level of potential evapotranspiration for the region as a whole, but there also is considerable variation between the Sahelian margins in the north and the savanna margins in the south. A good portion of the region north of the line stretching between Bilanga and Kantchari has potential evapotranspiration in excess of 200 mm, while around Coalla about 2100 mm can be expected. The south has somewhat lower evapotranspiration, most of it below 2000 mm and a good part below 1900 mm (Map 3).

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An important implication of these factors is the variation of land use potential and the duration of plant growth which to a major extent are determined by the moisture content of the soil. A measure of agricultural land use potential can be obtained by dividing total precipitation by potential evapotranspiration and the result again demonstrates the superiority of the southern areas with indices of 0.50 and higher, whereas in the north, indices of 0.40 and lower are obtained. There is very little doubt that the agricultural potential of the region rests on careful management of this precarious balance of physical conditions.

Table II-1 and Map 3 contain a summary of information on climatic zones and soil potentials. As indicated on the map, the region contains only three of five zones that have been used to describe Sahelian zones. About half of the region is found in the zone classified as D¹B, which represents an annual rainfall of between 350-600 mm with P=90. This area is considered suitable for livestock and certain cereal crops.¹ The cantons of Coalla, Bogande, Thion, Piela, Gayeri, Kantchari, Botou and sizable portions of Bilanga, Yamba, and Matiacoali are found here.

The middle section comprising the cantons of Tibga, Diabo, Diapangou, Fada, Diapaga, and Gohnangou and portions of Bilanga, Matiacoali and Comin Yanga is classified as Zone C, which has annual rainfall of 600-800 mm with P=90. Zone C has the climatic resources to support extensive cultivation of cereal

^{1/} The five classifications are formed by combinations of A¹ - D¹ for livestock and A - D for crops. Ranging from drier to wetter margins, the five regions are A¹, B¹, C¹/A, D¹/B, C, and D.

crops. Zone D, where annual precipitation of more than 800 mm with P=90 can be expected, contains the cantons of Yonde, Soudougui, Pama, and Madjoari and a small section of Comin Yanga. This zone not only supports cultivation of cereals but also is attributed to have greater potentials for cash crops such as peanuts, cotton and tobacco.

Table II-1 also indicates relative magnitudes, by canton, of soil capabilities. Five¹ soil categories are used to describe the region's potential. Soil types 3 and 5 dominate the region. A few cantons (Madjoari, Bizougou and Gabnangou) have soil type 1. It should be pointed out, however, that because of the high level of generalization used in this type of land categorization, the information on Table II-1 can only be regarded as indicative.

The savannah vegetation of the region is of particular interest as there are three principal types of pasture within it (Map 4). In general, the suitability of grasslands for livestock raising seems to decline southward as incidence of tse-tse increases, especially south of the 800 isohyet (P=90). As shown on Map 5A, the degree of use of grasslands for traditional cattle raising has been concentrated to the north and east of the region, particularly to parts of Coalla, Bogande, Gayeri, Maticoali, Kantchari, and Botou (Map 5B).

In as much as livestock raising may become one of the region's important rural activities, the natural vegetation, particularly in the areas of long standing traditional livestock practices, should be a focus of attention.

Wildlife is mostly concentrated in the southern savanna margins with particular concentrations in the basins of Kpenpienga (Ouale), Singou and Arli rivers. Varieties of antelope, buffalo and other big game are found here. A good deal of this area is in partial or total reserve to safeguard the stability of the stock. This natural wealth is not only of importance at present for the tourist industry, but also of potential significance for future agricultural development of the region. Game reserves constitute some of the best endowed

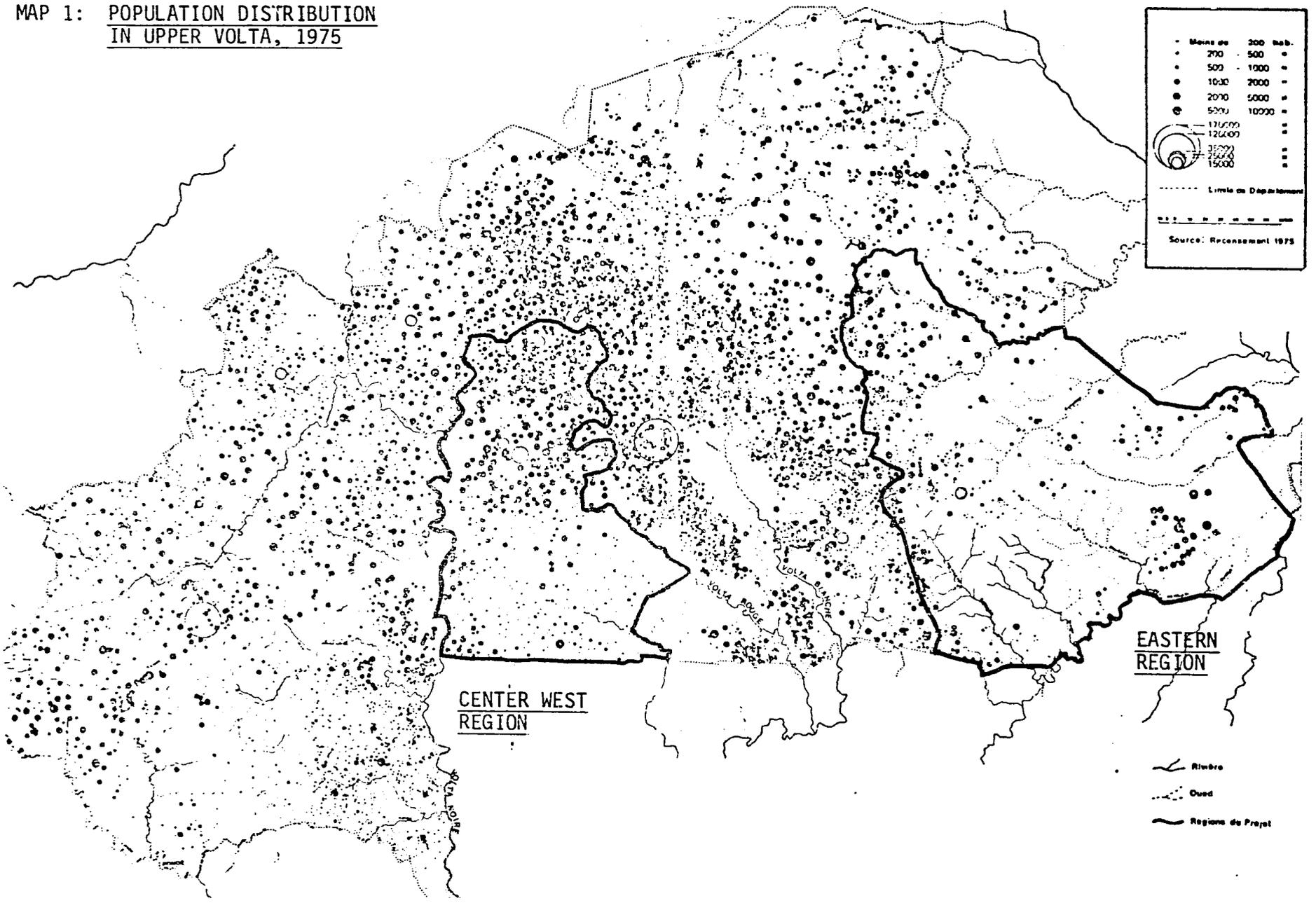
^{1/} 1 = irrigable soils, 2 = soils of good potential for dry land agriculture, 3 = soils of medium potential for dry land agriculture, 4 = soils of marginal potential for dry land agriculture, and 5 = soil unusable for crops but could be used for extensive livestock raising, reforestation or tourism.

(albeit disease-prone) parts of the region. They should be more explicitly integrated into the development planning process if they are expected to contribute to regional growth.

As part of the ecological system, pests and diseases also offer a major challenge to development. One of the most widespread diseases is malaria and is perhaps one of the most important health hazards in the country. According to a survey made by the Ministry of Health in 1974, the incidence and prevalence of malaria in the country is 83%. Although subject to regional variation, this is an extremely high incidence to contend with. Even more constraining to the full exploitation of the land resources is the prevalence of trypanosomiasis and onchocercosis. These diseases, which affect both man and animal, are more prevalent in the southern and wetter parts of the region. A good portion of the underpopulated but potentially valuable lands in the southeast, south and southwest have high incidences of these diseases. There is no doubt that they will pose a major challenge and constraint as attempts are made to venture into what has been called the "new lands."

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MAP 1: POPULATION DISTRIBUTION
IN UPPER VOLTA, 1975



•	Moins de 200 hab.	•
•	200 - 500	•
•	500 - 1000	•
•	1000 - 2000	•
•	2000 - 5000	•
•	5000 - 10000	•
○	100000	○
○	120000	○
○	120000	○
○	15000	○

----- Niveau de Département

----- Niveau de Préfet

Source: Recensement 1975

CENTER WEST
REGION

EASTERN
REGION

- Rivière
- Oued
- Région de Préfet

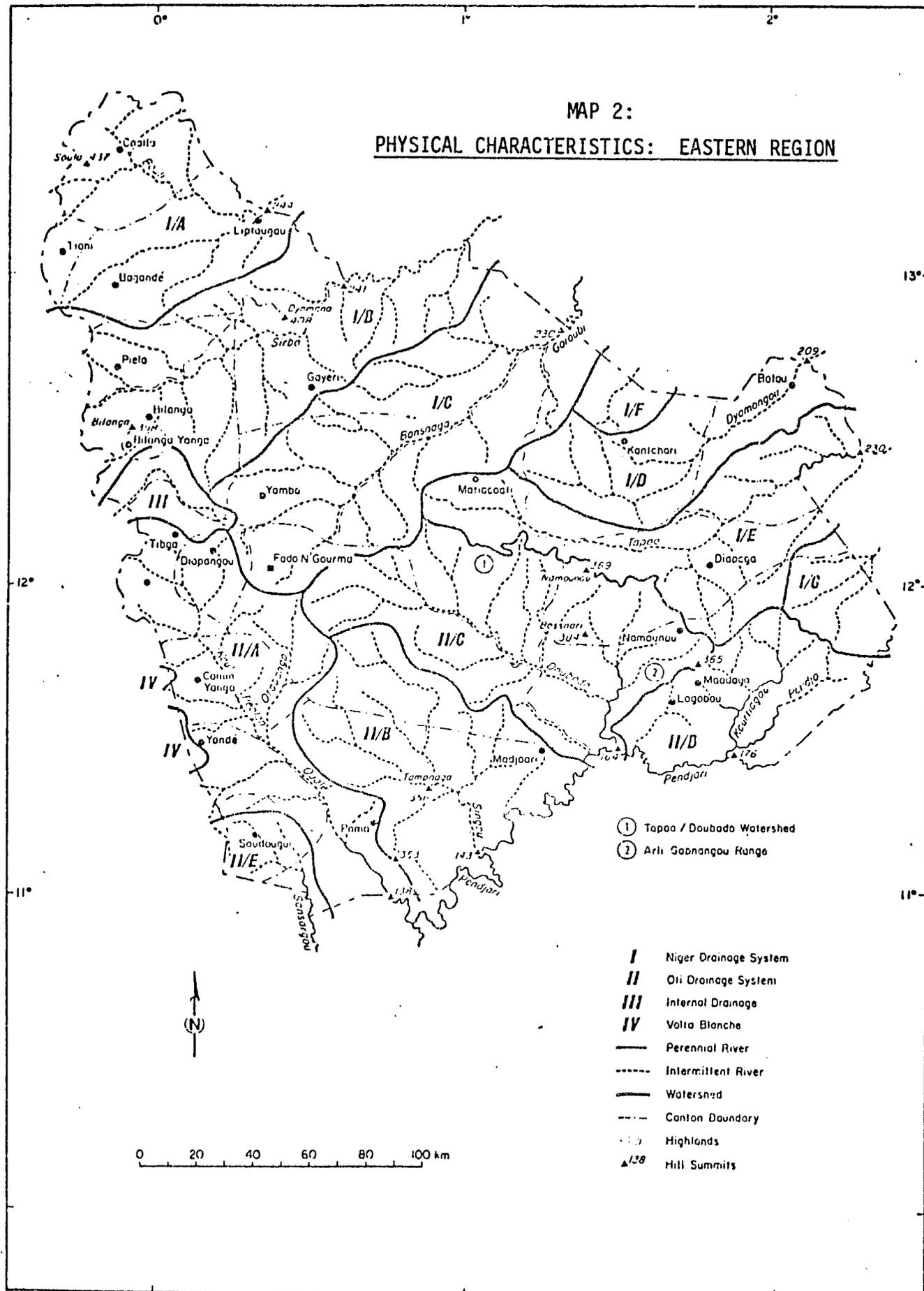
TABLE II-1: PHYSICAL RESOURCE CHARACTERISTICS, EASTERN REGION

SECTEUR	CANTON	TOTAL AREA SQ KM	BAS FONDS SQ KM	CLIMATIC ZONES			SOIL CAPABILITY					NEW LANDS
				D'B	C	D	1	2	3	4	5	
BOGANDE	Bogande	3,639	1,890	****							nd	nd
	Coalla	1,760	178	****							nd	nd
	Thion	379	459	****							nd	nd
	Piela	770	1,199	****							nd	nd
FADA	Bilanga	1,905	1,182	**	**				***		*	*
	Bilanga-Yanga	138	-	**	**				***		*	*
	Diapangou	571	2,008		****				**		**	**
	Fada N'Gourma	4,472			****			*	**		*	***
	Yamba	2,018	907	***	*				**		**	*
DIABO	Diabo	616	911	***	*				**		**	*
	Tibga	514	1,523		****				**		**	*
MATIACOALI	Gayeri	4,969	2,227	****				*	**		*	***
	Matiacoali	4,212	1,211	**	**			*	**		*	***
COMIN-YANGA	Comin-Yanga	1,260	180		**	**			***		*	**
	Yanga	794	54			****					****	**
PAMA	Madjoari	1,914	49		*	***	**		*		**	****
	Pama	4,529	95			****			**		**	****
	Soudougou	750	425			****			**		**	**
KANTCHARI	Botou	1,747	796	***	*				**		*	***
	Kantchari	3,266	1,931	***	*			*	**		*	***
BIZOUGOU	Bizougou	4,800	2,112		****		*	*	*		*	***
	Gobnangou	4,967	697		****		*	*	*		*	***
TOTAL		49,992	20,034									

Source: Mehretu and Wilcock (1979).

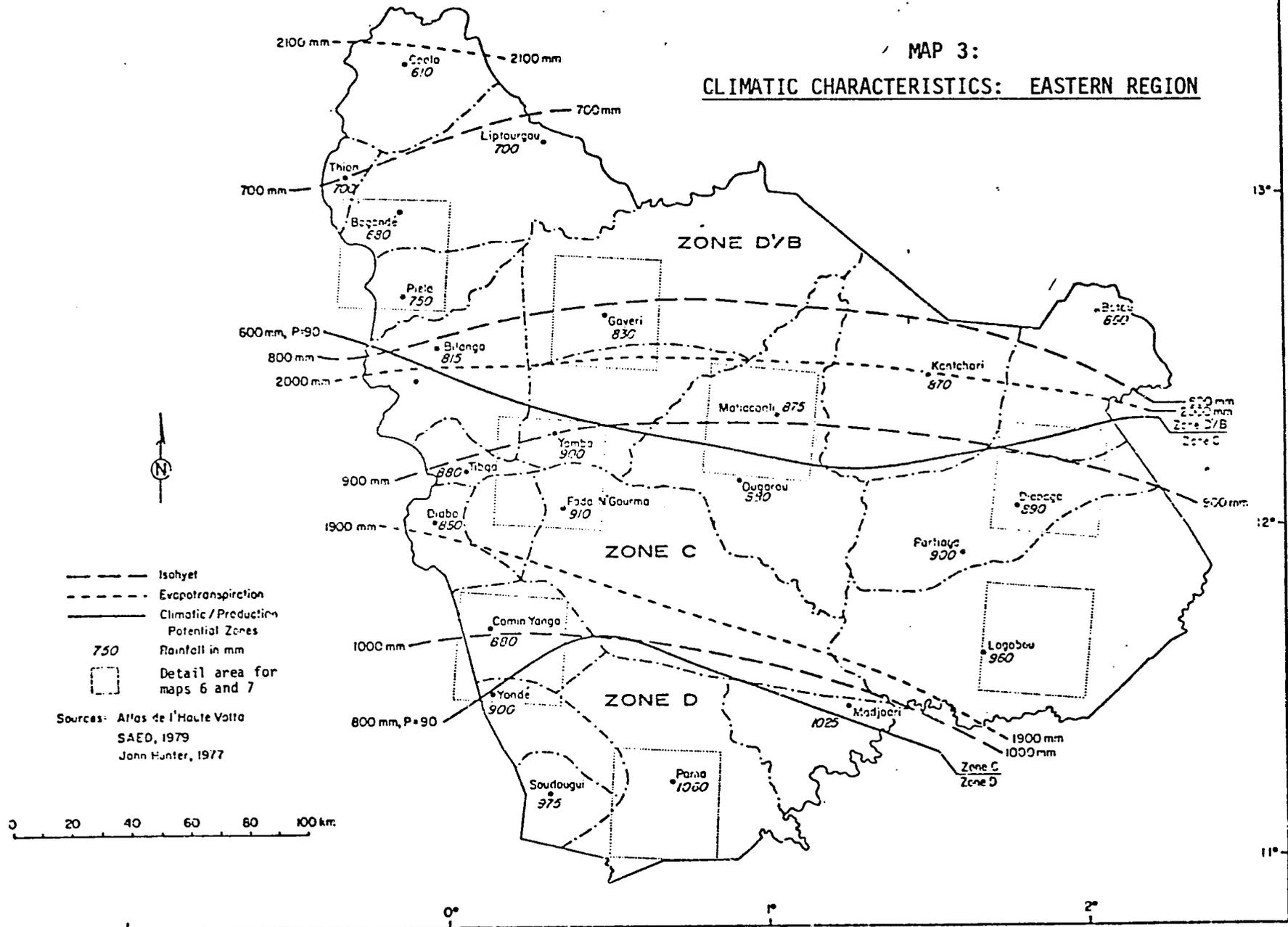
* = Magnitude of occurrence.

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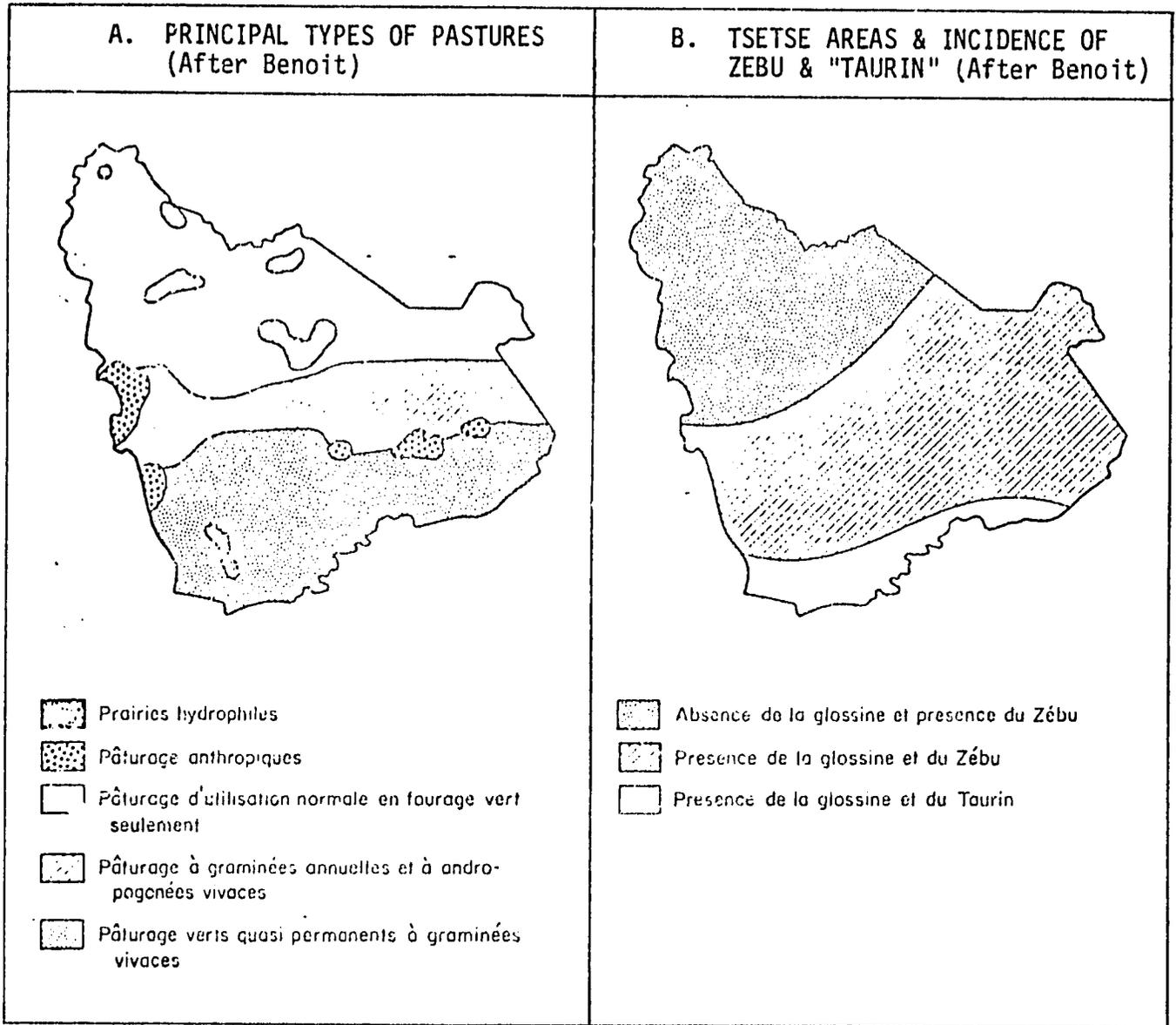
Source: Mehretu and Wilcock (1979).

MAP 3:
CLIMATIC CHARACTERISTICS: EASTERN REGION



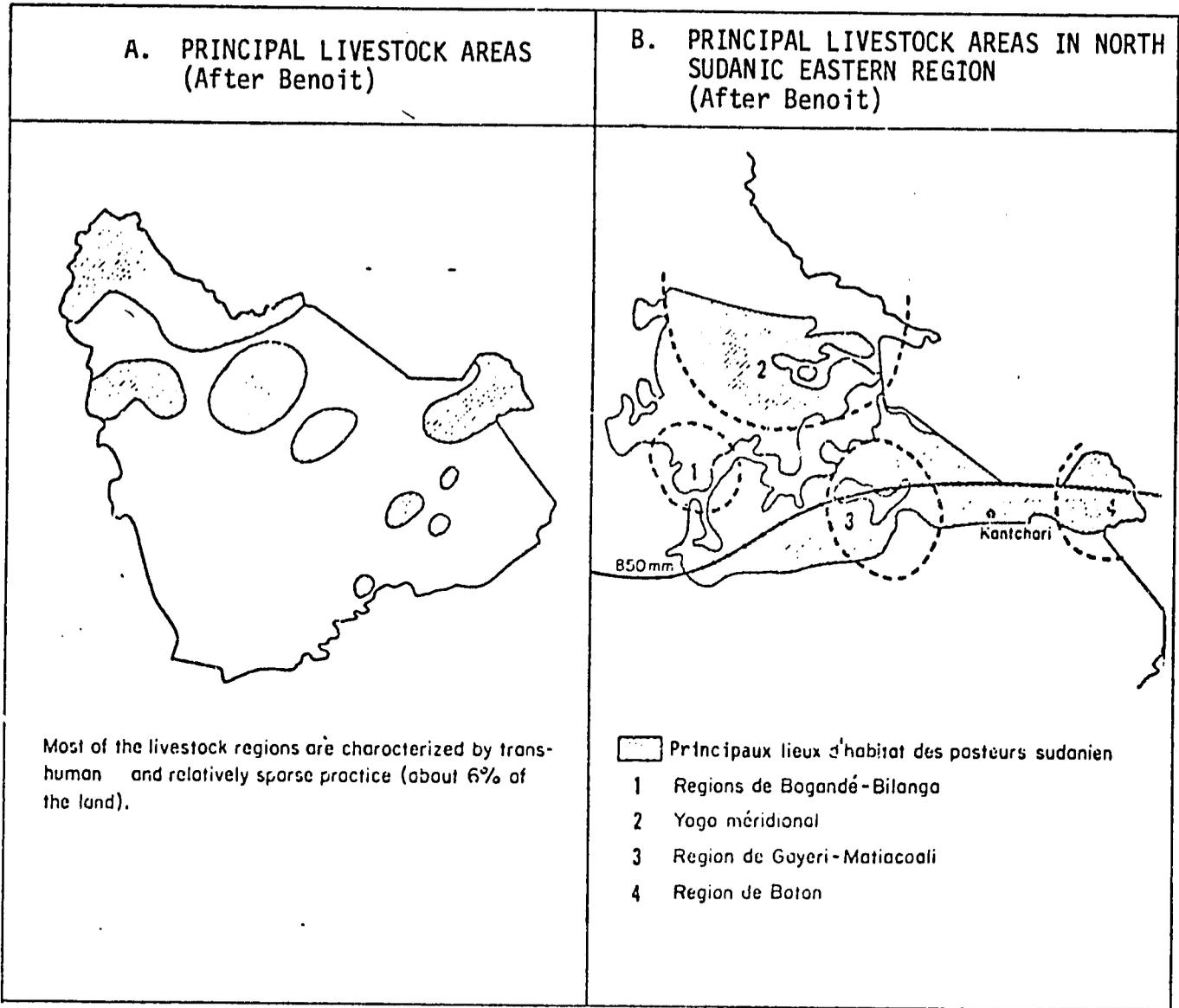
Source: Mehretu and Wilcock (1979).

MAP 4:



Source: Mehretu and Wilcock (1979).

MAP 5:



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Source: Mehretu and Wilcock (1979).

B. AGRICULTURE¹

Of the five million hectares in the region, approximately three million are grasslands suitable for grazing and another 1.6 million are arable and suitable for crop production. Estimates of the amount of land actually under cultivation, which depends to a great extent on rainfall conditions, range from 130,000 to 210,000 hectares. The characteristics of major crop production within the region are indicated in Table II-2.

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The geographic pattern of agricultural land use tends to vary significantly from one part of the region to another. In the more densely populated areas of the north, the western belt and the southeast, crop cultivation and cash cropping are very important. In the middle belt, which covers a vast amount of land from Gayeri to Botou, livestock raising and crop cultivation seem to dominate. To the south and southwest are some of the least populated and agriculturally unused parts of the region. The latter also contain the wild game reserves and parks noted earlier. Within these three major zones there are still many variations in intensity and cultural practices.

For example, Map 6A indicates a typical land use pattern in the very densely settled northern and western areas of the region. This pattern, drawn for the Bogande and Piela area, and which also applies for areas around Tibga and Diabo, represents the highest degree of land use; with perhaps close to or even more than 50% of the land brought in under cultivation at one time or another.

Maps 6B and 6C are examples of transitional zones from the high density areas of the west to sparser areas in the east. Both the Fada (6C) and Comin Yanga (6B) quadrants show that their western margins are more intensely used than their eastern margins. These two represent a region of moderate intensity with land use ratios of approximately 25 to 30%. A third zone is exemplified by the Logobou (6D), Diapaga (7A), and Pama (7B) areas where land use

^{1/} Mehretu and Wilcock (1972) and FAO (1980).

intensity is low, perhaps not more than 10 percent in most instances. Diapaga and Logobou show slightly higher intensity of use but by and large these areas are characterized by a high degree of unused land. A fourth zone of land use is that shown by Maps 7C and 7D, covering Gayeri and Matiacoli. They are typical of the middle belt where land use intensity is extremely low. Similar areas are found all the way east to Botou. These areas are, as indicated earlier, relatively more important for livestock rearing. In any case, this fourth type of area contains by far the lowest ratio of land used to total; perhaps not exceeding five percent.

The regional variation in land use intensity is also indicated by a list of distribution quotients (DQ) in Table II-3, which have been computed by dividing the percentage of cultivated area in a canton (with respect to the total cultivated area of the region) by each canton's percent share of the total area of the region. Concentration is shown by those cantons which have results higher than unity. In this case, high concentration is again indicated in the northern and western cantons, while the central and eastern cantons have quotients less than unity.

The actual number of farms across all those zones is unknown; though estimates vary between 27,000 and 53,000. In a sample survey undertaken by an MSU team in 1979, it was found that an average size traditional farm cultivated about 4.2 hectares, while that of a modern farm (i.e., using animal traction) cultivated 6.5 hectares. In either case, however, farming families have priority orientation towards subsistence production; and this results in a very low level of participation in the monetary market through sales and purchases, and a correspondingly low level of production investment from "savings."

There are three categories of cultivated land. One consists of the fields within and immediately surrounding the compounds of a village. These are cultivated permanently. A second consists of village fields which are located within a 1 to 2 kilometer radius of a village, and which are temporary. The third are bush farms located some 2 to 4 kilometers from a village, and where villagers camp during the rainy season. Out of these, as indicated above, comes the dominant output of sorghum and millet, which also, after autoconsumption needs

have been met, provide an average marketable surplus of about 500 kilograms per farm. Amongst the better plough farmers, there has been a tendency towards more diversified cropping, including cash crops.

Corn is grown in compound gardens, and its overall importance is low. Together with wild millet, it is the cereal most often consumed during the rainy season. Groundnuts constitute the most important cash crop in the region, and are heavily cultivated in the area of Bogande, where 9% of cultivated land is dedicated to it. It also has a certain importance in the area of Diapaga. Everywhere else groundnuts are cultivated by women in very small quantities. In general 75% of the output is marketed, the balance being consumed as nuts, paste, or oil.

Cotton, until recently grown in small parcels for purposes of the home economy, is currently the subject of a promotion effort in the Diapaga area. A major constraint on wider cultivation of this crop has been the inadequate transport network. Rice (paddy) is also of recent introduction, and its promotion is being concentrated in small areas with adequate water supplies. The only other economically important crops are sesame (in the north) and manioc (in the south); both of which are grown within concessions.

In general, cultivation techniques used by farming families are exceptionally rational within the framework of the environment to be worked with and the means available to do the work; both in terms of the crop varieties selected and the reasonable use of land. The basic technique is mobile cultivation (in essence a "crop" rotation) which permits reconstitution of soil fertility during fallow periods lasting from four to 20 years---depending on the area, population pressure and distance between field and village. Village fields are usually cultivated for a period of six years, and in about 80% of the cases the same crop is grown for the whole of the period.

About 95% of the farms practice manual cultivation, and so the equipment used consists of various types of hoes. Since 1974 the ORD has undertaken a constant effort to introduce animal traction to the region. However, even

including farms which were so equipped prior to 1974, the number of plough-teams is estimated at no more than 2000; or about 5% of all farms. About 40% of these are ox-teams, and the balance donkey-teams.

The bulk of agricultural inputs used in the region are supplied by the ORD, either through cash payment or through credit arrangements. In the greater scheme of things, however, use of herbicides, pesticides and fertilizer is negligible. On traditional farms, purchased inputs average FCFA 20 per hectare, and on plough farms, they average FCFA 100 per hectare. In physical terms, about 17% of millet and sorghum seeds have been treated and only 3% are of improved varieties. About 14% of fields receive some form of chemical treatment, and only 0.5% receive chemical fertilizer. 50

With regard to livestock, the region's 350-400,000 cattle and 450,000 sheep and goats represent one of the highest ratios of livestock to population in the country (see Table I-2). With its three million hectares of grasslands, the region provides an average of 7.5 hectares per head, and this is more than enough land for husbandry purposes if foraging reserves were constituted during the dry season. Most of the herds belong to the Peulh, with some 20 to 25% belonging to the Gourmantche. Production of meat from cattle is estimated at about 4200 tons per year--or a surplus of some 2000 tons above and beyond the needs of the regional population.

The agency responsible for stimulating growth in agriculture is, as mentioned at the outset, the ORD. Indeed, by virtue of its attachment to the Ministry of Rural Development, and the quasi-total absence of effective decentralized units of other central ministries, the ORD is more or less responsible for promoting all aspects of regional development; though with respect to other sectoral agencies like health, education, and so on, it adopts more of a coordinating role than an implementational one.¹ Its major responsibilities are to:

- Promote rural production as manifested by increased output, increased stocks in storage, increased marketing of products, and increased use of modern inputs, equipment and methods;

^{1/} Mackie, Morton and Poulin (undated).

- Provide and maintain basic rural infrastructure like water sources, valley bottoms, etc.; and
- Promote social development through training of farmers, organization of producers into collective groups and associations, and animation of rural communities.

The ORD's program is focused on increasing agricultural production mainly through extension services in which each agent covers an extension unit consisting of anywhere from three to six villages. The extension service is supported by six centralized bureaus, as follows:

- The Bureau for Agricultural Production is responsible for providing the technical back-up to the extension agents. This includes conducting field trials, selecting technical packages to be disseminated to farmers, and distributing agricultural inputs;
- The Bureau for Agricultural Equipment and Rural Infrastructure is responsible for the construction of buildings and minor rural works including the design of bas-fonds (low lying water catchment areas) land management structures;
- The Bureau for Economic Analysis and Planning is responsible for data gathering and analysis, applied research of a non-technical nature, evaluation, and planning;
- The Bureau for Financial Services and Accounting is responsible for all of the financial affairs of the ORD including the disbursement of credit for equipment and farm inputs, and funds for purchase of cash crops;
- The Bureau for Community Development is responsible for organizing village-level programs. Its most important activities are:
 - organizing village groups;
 - organizing women's groups;
 - organizing clubs for older children (similar to 4-H Clubs);
 - setting up Young Farmer Training Centers;
 - setting up functional literacy centers; and
 - organizing radio clubs for functional education.

Most of the field work related to the village groups, 4-C clubs, and radio clubs is the responsibility of the extension agents. Animatrices are provided for the women's groups and instructors are provided for the farmer training and functional literacy programs; and

- The Bureau for Livestock has similar responsibilities as the one for agricultural production, except that it concentrates on the animal husbandry sector.

At the end of 1979, the ORD employed 343 persons, of which 115 were based at its headquarters in Fada N'Gouma, and the balance in the sector, subsector, and villages of the region. These excluded the personnel provided through international assistance such as those of USAID, the United Nations, the Government of Switzerland and non-governmental voluntary organizations. For the fiscal year 1977-78, ORD expenditures amounted to FCFA 417 million; the major elements of which were FCFA 147 million for administration and FCFA 175 million for purchase of agricultural input (seeds, fertilizer, insecticides), agricultural implements (ploughs, hoes) and farm output. During the same period it received FCFA 220 million in subsidies from several sources, much of it, 158.5 million, from USAID. To cover its operations, the ORD in addition, was obliged to obtain short-term loans from the National Development Bank (BNA) of FCFA 70 million in 1977-78.

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TABLE II-2:
AGRICULTURAL PRODUCTION IN THE EASTERN REGION, 1975-79 ^{1/}

CROP	YEAR	CULTIVATED AREA (Ha)	OUTPUT (Tons)	YIELD (Kg/Ha)
MILLET	1975/76	-	-	-
	1976/77	63,000	33,400	530
	1977/78	46,900	29,900	640
	1978/79	38,900	28,900	795
SORGHUM	1975/76	158,000	87,000	580
	1976/77	91,800	56,500	615
	1977/78	89,600	76,000	850
	1978/79	90,000	75,000	830
CORN	1975/76	-	-	-
	1976/77	4,100	2,800	680
	1977/78	3,300	N/A	N/A
	1978/79	5,800	8,100	1,400
RICE	1975/76	9,400	6,800	720
	1976/77	10,200	9,100	890
	1977/78 ^{2/}	242	297	1,230
	1978/79	-	-	-
COTTON	1975/76	300	N/A	N/A
	1976/77	350	21	60
	1977/78	860	420	490
	1978/79	-	-	-
GROUNDNUTS	1975/76	23,800	16,600	700
	1976/77	24,700	13,000	650
	1977/78 ^{2/}	8,300	5,900	720
	1978/79	6,400	4,300	670

Sources: Haute Volta (1980) and FAO (1980).

- NOTES: ^{1/} Figures here do not correspond to those for the region indicated in Table 2 because they are drawn from different sources.
- ^{2/} Drastic changes in area and output are not explained in source materials.

TABLE II-3: LAND UNDER CULTIVATION IN THE EASTERN REGION

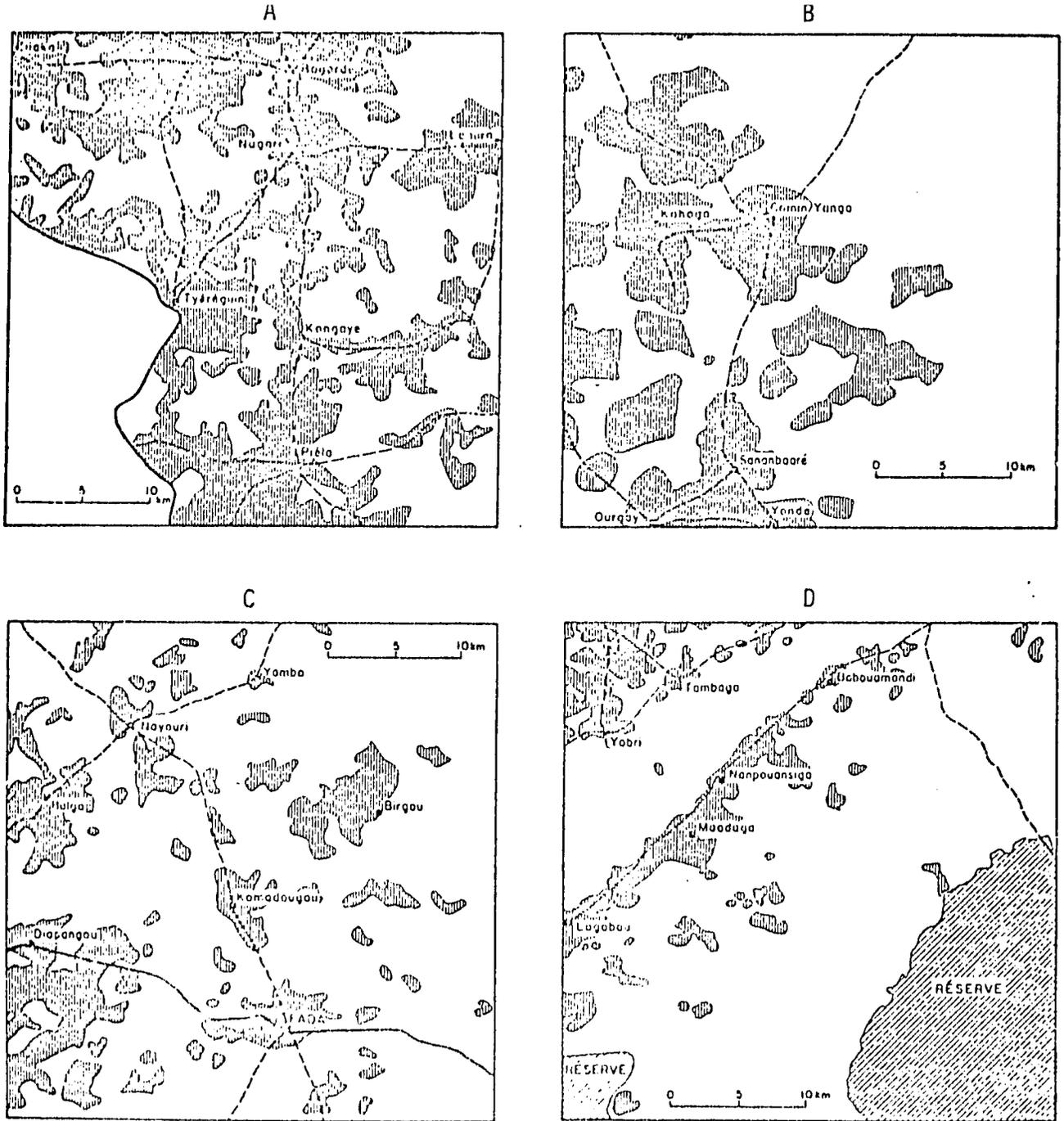
CANTON	POP. 1978/79 SAED, Est.	POPULATION %	TOTAL AREA Ha.	AREA %	AREA UNDER CULTIVATION Ha.	CULTIVATED AREA %	D.Q.* % OF CULTIVATED AREA + % OF TOTAL AREA
Coalla & Thion	67,403	15.9	213,900	4.3	23,152	16.1	3.74
Bogande	35,269	8.3	363,900	7.3	11,319	7.9	1.08
Piela	23,825	5.6	77,000	1.5	10,342	7.2	4.80
Bilanga & B.-Yanga	30,225	7.1	204,800	4.1	9,961	6.9	1.68
Gayeri & Yamba	25,859	6.1	698,700	13.9	8,129	5.6	0.40
Bctou, Kantch, Matia	41,909	9.9	922,500	18.4	14,686	10.2	0.55
Diabangou, Tibga	22,710	5.4	108,500	2.1	9,601	6.7	3.19
Fada N'Gourma	22,696	5.4	447,200	8.9	8,068	5.6	0.63
Diabo	26,742	6.3	61,600	1.2	8,857	6.1	5.08
Comin Yanga & Yonde	25,887	6.1	205,400	4.1	8,370	5.8	1.41
Pama, Soud, Madj	30,999	7.3	719,300	14.4	10,928	7.6	0.53
Gobnangou	45,732	11.0	496,700	9.9	10,920	7.6	0.77
Bizougou	23,419	5.5	480,000	9.6	9,758	6.8	0.71
TOTAL	423,683	100.0	4,959,200	100.0	144,090	100.0	

* D.Q. = Distribution Quotient

Source: Mehretu and Wilcock (1979).

MAP 6: HIGH DENSITY LAND USE PATTERNS IN THE EASTERN REGION ^{1/}

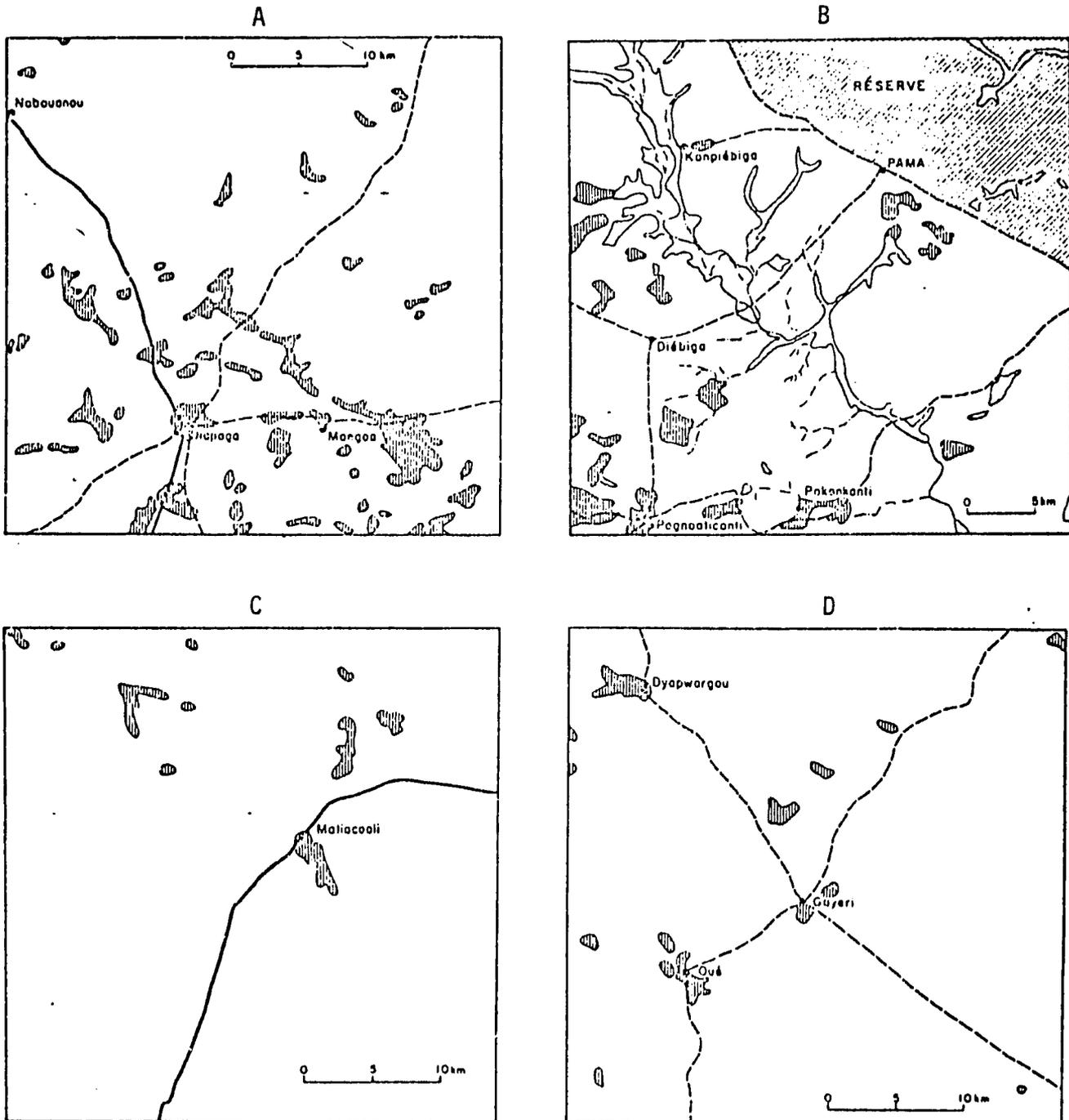
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Source: Mehretu and Wilcock (1979).

NOTE: ^{1/} See Map 3 for location of detail areas.

MAP 7: LOW DENSITY LAND USE PATTERNS IN THE EASTERN REGION ^{1/}



9c

Source: Mehretu and Wilcock (1979).

NOTE: ^{1/} See Map 3 for location of detail areas.

C. POPULATION AND SETTLEMENT PATTERNS¹

The eastern region contained 407,000 people in 1975, and may now contain some 440,000 inhabitants (see Table II-4). Given its coverage of 50,000 square kilometers, the region has an overall density of a bit over eight inhabitants per square kilometer; thus making it one of the least populated areas of the country. Densities within the region are not uniform, however, as was suggested by the earlier discussion of land use.

59 When the region is subdivided by canton, for example, densities can range as high as 40 inhabitants per square kilometers in some areas, especially along the western edge bordering the Mossi Plateau (Map 8). By contrast, 80% of the region contains less than 10 inhabitants per square kilometer, dropping down to 1.8 inhabitants per square kilometer in one case (see Table II-4). Indeed, contrasting indicators of density become even more pronounced if "settlement clusters," which delimit the effective land use space surrounding villages (i.e., 5 km), are looked at (Map 9). In this case there are a few pockets in the region where densities approach 80 inhabitants per square kilometer while most of the balance of the region contains less than five inhabitants per square kilometer.

In general, most of the region's population is concentrated in two areas. One extends from Coalla in the north to Soudougui in the south, forming a band of high density along the western boundary. The second, relatively smaller concentration, is located around Diapaga and Logobou in the east. The central vast plain of the region, comprising about seven of its large cantons, is very sparsely populated. Almost all the inhabitants of the region, however, live in some 640 nucleated villages and towns of varying size (see Table II-5).

In the eastern region, as elsewhere in Upper Volta, it is essential to recognize that for the most part, villages are clusters of farms and farming families, and for a majority the words "village" and "farming community" can be used interchangeably. As such, and given the pattern of agricultural

¹/ Mehretu and Wilcock (1979), and Mehretu (1981).

land use described earlier, villages tend to be organic entities with life cycles under which they can be described as "young" or "well-established, older."¹ In young or small villages, say up to 35 compounds, most of the physically able farmers commute by foot or bicycle to their fields located around their village or nearby in the bush. Such fields are a mixture of fallow lands under recultivation and unclaimed, free land being cultivated for the first time. The former predominates. Older people will cultivate the village fields or possibly fields adjacent to the village.

Within a larger or well-established village, the older and weaker members of a compound tend to cultivate the unexhausted soils remaining in or immediately surrounding the village. Such lands are fallow lands recultivated and former fields of earlier settlers. Though it is possible to have grain fields on the outskirts of a village, this is usually greatly subdivided among various members of different compounds of the village. Such land, therefore, represents one form or another of "small land plots."

Large older villages such as Fada, Bogande, and Piela, present a different problem from younger and smaller villages. For many people good land, even to borrow, is scarce within walking distance. A farmer will find that he can not make a living for his family on the land available to them. He will, therefore, search farther and farther from the village for suitable bush land.

Whether he is a long-time resident of the nearby village or a newcomer, upon finding land, he will seek to learn its disposition. Knowing the owners, he will ask permission to use it. This is not a matter for the chief or the village to arbitrate, even if the farmer happens to be a stranger to that village. If the owners do not have immediate plans for it, they will allow the farmer to cultivate it--usually for as long as he wishes. It is taken for granted that the farmer will eventually leave for a new site. It is, however, within the rights of the owners to reclaim this land anytime they choose. They usually would never do so unless real discord arose. In such an event the owner would tell the farmer to leave before the next planting

^{1/} Swanson (1978).

season. Except in such cases, the owners would rather themselves borrow someone else's land to cultivate, if they no longer have any of their own or family lands ready for cultivation, than make the farmer leave. They themselves might be in a similar situation someday.

Thus, any farmer will establish himself on unclaimed, free land if at all possible. Whether or not he can do so, however, he will clear his new land and build a bush compound nearby where he, his wife or wives, children, and livestock will spend the rainy season. When the harvest is in, the family will return to their compound in the village.

If the land now put to cultivation is indeed unclaimed and free, and water is available year-round, the farmer may after a year or two decide to set up year-long residence at the bush compound. With this decision will come some improvement to his bush compound. Rather than grass mats for walls, he may build with clay. Clay storage silos will be constructed.

The decision to settle may also be encouraged by the arrival of other kinsmen and/or friends with their own compounds. The formation of a cluster of fields in the bush, each with their respective compound, is given a distinctive name. This name often later becomes the name of the new village.

When the soils of the first fields in the newly established area begin to wear down, new land will be sought. If none is within easy access, the farmer will have to move away and the community will eventually disappear. If cultivatable lands can be found, new fields are established, time passes, and the community grows. In this way, compounds or subsistence units from within compounds of old villages relocate into more uninhabited rural areas and establish new communities.

What now happens is that over a number of generations, if such a site proves advantageous, more and more people move to the settlements and establish compounds in between and around the original settlers--almost always on land formally cultivated by those original settlers. Newcomers are given a site for a compound and are loaned some land around it for their village field and compound plots. All the land within the community and nearly all

cultivable or fallow land anywhere near the new village belongs to the living descendants of the first compounds established in this area. Within the village, personal and family lands are sometimes separated from that of others by the placing of stone markers. In terms of the total population of a medium sized village (400-700 persons), the "owners" of land represent a minority. The larger the village, the greater the ratio between land holders and land borrowers.

With the passing of one generation in the new community, come the presence of elders. It used to be that the oldest elder became the leader of the community by right of age. He would retain this position until the regional chief and his elders selected a farm chief for the community. This farm chief might or might not have been the eldest person depending on his attributes as a leader. 60

It is impossible to say definitively at what point a farm community becomes a village, but a community could not have a chief without its being a village or town. Because chiefs no longer hold the authority they once had, the creation of new subchiefs, which was characteristic of the creation formally of new villages, no longer takes place.

There are many communities today within the region which in earlier times would have had their own chiefs and thus be considered legitimate villages, instead of farm communities as they are now considered. Not having a chief does not seem to have any negative results for the farm communities however. A practical problem has been created though. In the past it was possible, when taking a government census, to go to all the chiefs and from them and the older members of the established community, obtain the names of those families who have moved away to a farm community. Such people were still considered a part of the village as long as the community did not have its own chief. Today however, many such farm communities are far bigger than the villages from which the inhabitants came. These "farm communities" are responsible to towns often smaller than themselves for the payment of taxes for instance. The names of many of these communities have never been recorded on any official documents, and they represent new young or small villages; thus being the starting points for a new cycle of village growth.

Therefore, physically, a village today consists of dispersed family compounds built in traditional style and of impermanent materials, one much like another, each surrounded by its compound field. The individual dwelling and field may occupy anything up to a hectare of land.

61

The compound fields are often the most productive parts of a family farm, benefiting from the human wastes of the family. Families have bush fields too, larger than the compound, at distances of anything from two to thirty kilometers from their homes. These families may also think of it as part of their "village." The village, in fact, may be regarded as the entire area of the land that the villagers claim to have rights to occupy and use, though in places where traditional systems of land tenure still prevail, they may not claim to "own" it, in the sense in which ownership is understood in western countries.

Such a definition of the village may be too broad for practical purposes, and it is preferable to think of the village as the area of the houses and the compound fields; the area in permanent occupation. This is extensive enough. Even a small village may cover one or two square kilometers of land. A large village, for example, with 6,000 people, may cover anything from 15 to 20 square kilometers.

Where there is plenty of land, and the bush fields are remote from the compounds, the population of a village may vary considerable with the season. Namonou, in the canton of Gobnangou, is credited with a population of 8000 in the dry season, but no more than 2000 would be found at home during the farming season.

Because each home is surrounded by its compound farm, when the crops have fully grown, a village almost disappears from view; and though one will be aware of the millet and sorghum and maize, one can drive right through it without knowing that there are houses there as well. It is hard at any time to see where a particular village begins or ends. Probably something like eight out of ten villages consist of houses and farms and of nothing else, unless it be a well; but in many cases, dry season water supplies come from a

hole dug in the nearest valley bottom or stream bed. Perhaps one in ten is distinguishable by having a small market place. The rest may have something more, perhaps a school, dispensary, and maternity center.

An ordinary village has no visible center, unless it is the compound of the village chief, not essentially different from the others, but probably a little larger. In villages with markets, the market might be regarded as the center, although it may be located on the outskirts. It is normally an open space with shade trees and a few grass-mat shelters, not readily recognizable as a market place unless a market is actually in progress. In still larger and more important villages, (the canton chiefs' villages, for example, especially where these are also the seats of subprefects and chefs d'arrondissement), there will be some public buildings--the administrative office and residence, a few sets of quarters for government staff, a primary school, the dispensary, and the maternity center. But the great majority of the villages do not possess any of these, and in most cases one village is indistinguishable from another, except in size.

62

The majority of villages lead self-contained lives, are sufficient unto themselves at least for the bare necessities of existence, and socially are well-organized places. The canton chief's village, if the canton chief is active and influential, will exert some influence over all the other villages of the canton. Where a market occurs, it will attract buyers and sellers from other places, at distances which vary with the activity and importance of the particular market. Dispensaries and maternity centers attract patients from within a radius of thirty kilometers. Primary schools bring in a few pupils from villages up to ten kilometers away, but for the most part serve only the villages in which they are located. Other amenities found in the larger villages, churches, chapels and mosques, the wells and the beer shops, serve only people living in the immediate vicinity and have little attraction for the next village down the road. Grain mills and establishments selling gasoline and kerosene, usually to be found in the towns with important markets, attract customers from all the nearby places which are without them.

A Mission establishment, especially if it offers medical services, can attract and benefit considerable areas and a large number of villages; and missionaries reach out to the rural populations carrying services to them instead of waiting for them to come in. So do good subprefects and chefs d'arrondissement. So do some of the nurses in the dispensaries, and some of the matrons in the maternity centers. With so many villages, so dispersed and remote, mobility appears to be the essential requirement for the delivery of some basic services to the mass of the rural people.

63 The 1975 census indicated the existence of 645 villages and towns in the eastern region, ranging anywhere in size from less than 100 people to more than 10,000 (see Table II-6).¹ Only about 18% of these settlements contain more than 1000 people, yet 58% of the population lives in them. Fourteen of the 22 cantons have over 50% of their inhabitants in larger villages with population exceeding 10,000. In general, the larger villages are concentrated in the northern and western extremities of the eastern region, coincident with the areas of high population density discussed above. At the same time, it may be noted that villages in the extremities are much more highly clustered, that is, having short distances between them than elsewhere (Map 10)

The locality in Table II-5 with more than 10,000 people is the regional center of Fada N'Gourma. Of the four villages with more than 5,000 inhabitants, two, Coalla and Litpougou, occur in the most northerly, usually inaccessible, canton of Coalla, and the other two, Tansarga and Diapaga, in the remote southeastern cantons of Gobnangou and Bizougou. The three villages whose populations were approaching 5,000 in 1975 were similarly distributed, Bogande in the north of the region, and Namonou and Pentinga in the southeast. All of these places have certainly grown since 1975; Namonou in particular, for it is believed to have now almost twice the population it had five years ago.

Most of the eleven medium-sized places, with between 3,000 and 4,000 people, are to be found in the same general areas, four of them in Gobnangou and

^{1/} There is some confusion regarding the exact numbers of villages in the region. While the census indicates 645, the UFRD project could confirm the existence of only 638, and the MSU planning team only 635.

Bizougou cantons and two in the northern cantons of Piela and Bogande; but the rest of the villages in this category are in the centrally-situated cantons of Comin Yanga, Tibga, Gayeri, and Bilanga.

The villages, whatever their size, are strong, coherent communities, socially well-organized; not without internal disputes and problems but usually capable of settling these among themselves and of looking after their own simple affairs. Except in villages of mixed tribal origins, or those with many new immigrants, the village people are usually united by lineage, by descent from a common ancestor. It is as head of a family that the village chief commands respect. Even in these changing times, among the Gourmantche of the east, the village lands may be regarded as undivided and held in common, though each household will have a prescriptive right to use that portion of the village lands which its forebears habitually used. 64

It is therefore to his village (after his own immediate family) that a person gives his first loyalty. Men who leave their villages and prosper elsewhere, in Government or in business, do not abandon their birthplaces. Often they return to build substantial homes in them; often they contribute generously to public purposes in their villages; and they are nearly always ready to entertain and assist their fellow villagers, who may indeed be their own younger brothers or nephews or cousins.

In spite of these important advantages, the "villages" are just too small, and there are too many of them, to be considered as practicable units for the planning of rural development programs or for the organization of services for rural populations. Supplying even the one essential service to over 640 villages, a good well or borehole yielding adequate water supplies all year round will be a most formidable and costly undertaking. The canton, therefore, appears to be a more reasonable unit of space and of population for the purposes of planning. They exist in manageable numbers, 22 in the east, have some traditional origins, and there will be lineage ties between the villages of a canton, even if these are more remote and less dominating than those which occur inside the village.

The canton, as its name suggests, was used as an administrative unit by the colonial government, the word of command passing from the Commandant de Cercle to the canton chiefs, from them to the village chiefs, and from the latter to the people. Inevitably, some damage resulted to the position and traditional influence of the canton chiefs.

65 Nevertheless, the canton organization has survived, and the canton continues to constitute the basic organization of Upper Volta for administrative purpose. It is the basis of the census, the tax rolls, and the annual tax collections. It is taken into account in the ORD subsector organizations. There is always a Canton Secretary, whose stipend is paid by the Government, but who is responsible both to the canton chief and to the subprefect. It is in the village of the canton chief, (even when it is not the largest or most important village of the canton), that the facilities serving the rural populations are most likely to be found--the primary school, the dispensary, and the maternity center. They occur today in some other villages as well, but it is certainly true to say that the canton headquarters was the first to get them.

The canton chief does not appear to have any powers in law, although he is encumbered with numerous duties by usage. The extent of his authority and influence does not lend itself to easy generalization. In some cantons, his leadership is accepted without question, in others he appears to be ignored. Nor do the cantons themselves lend themselves to generalization. They vary enormously. Gayeri canton covers an area of approximately 5000 square kilometers, and Thion an area of only 380. Coalla has at least 55,000 inhabitants, while Madjoari, occupying a larger area, has just over 3000. There is no uniformity or even similarity.

Uniformity and similarity, though convenient, are not always desirable. The canton does appear to be the largest unit of space in both regions in which rural peoples spontaneously recognize each other and feel reasonably well at home. It therefore lends itself well to the kinds of institutional developments which progress in the rural areas may require. The subprefectures and arrondissements have a part to play as well; but the subprefectures tend to be too large. Bogande, for example, has over 120,000 people, more than a quarter of the total population of the eastern region.

**TABLE II-4: POPULATION DISTRIBUTION IN THE EASTERN REGION
BY CANTON, 1979**

CANTON	POPULATION 1979			
	Total #	Density, Km ²	% Distrib.	% Area
Bogande	36,492	10.0	8.3	7.3
Coalla	59,514	33.8	13.5	3.5
Thion	10,226	27.1	2.3	0.8
Piela	24,750	32.1	5.6	1.5
Bilanga	28,282	14.9	6.4	3.8
Bilanga-Yanga	2,991	21.7	0.7	0.3
Diapangou	8,385	14.7	1.9	1.1
Fada N'Gourma	27,247	6.1	6.2	8.9
Yamba	10,120	5.0	2.3	4.0
Diabo	27,261	47.3	6.2	1.2
Tibga	15,112	29.4	5.4	1.0
Gayeri	16,646	3.3	3.8	9.9
Matiacoali	15,176	3.6	3.4	8.4
Comin-Yanga	16,461	13.1	3.7	2.5
Yonde	10,324	13.0	2.3	1.6
Madjoari	3,524	1.8	0.8	3.8
Pama	12,230	2.7	2.8	9.1
Soudbugui	16,263	16.4	3.7	1.5
Botou	14,284	8.2	3.2	3.5
Kantchari	13,903	4.3	3.1	6.5
Bizougou	24,231	5.0	5.5	9.6
Gobnangou	48,766	9.8	11.0	9.9
TOTAL	442,199	8.8	100.-	100.-

Source: Mehretu and Wilcock (1979).

TABLE II-5: SIZE DISTRIBUTION OF VILLAGES IN THE EASTERN REGION, 1975

VILLAGE POPULATION	NUMBER OF VILLAGES
Less than 100	77
100 - 249	162
250 - 499	175
500 - 999	110
1,000 - 1,999	71
2,000 - 2,999	24
3,000 - 3,999	11
4,000 - 4,999	3
5,000 - 9,999	4
10,000 or more	1
TOTAL	638

Source: Haute Volta (1980).

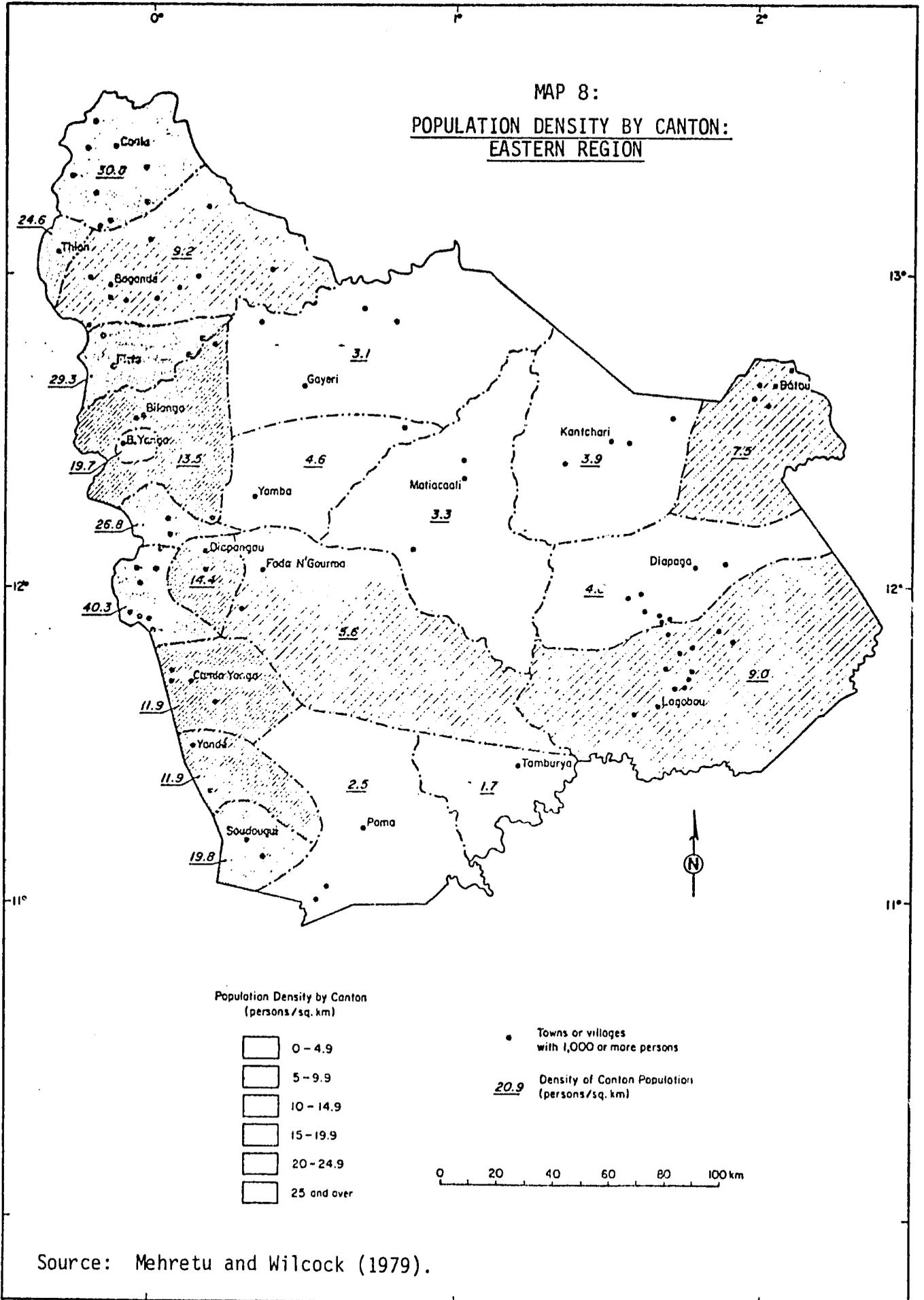
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TABLE II-6:
POPULATION DISTRIBUTION IN THE EASTERN REGION, BY VILLAGE SIZE & BY SECTOR, 1975

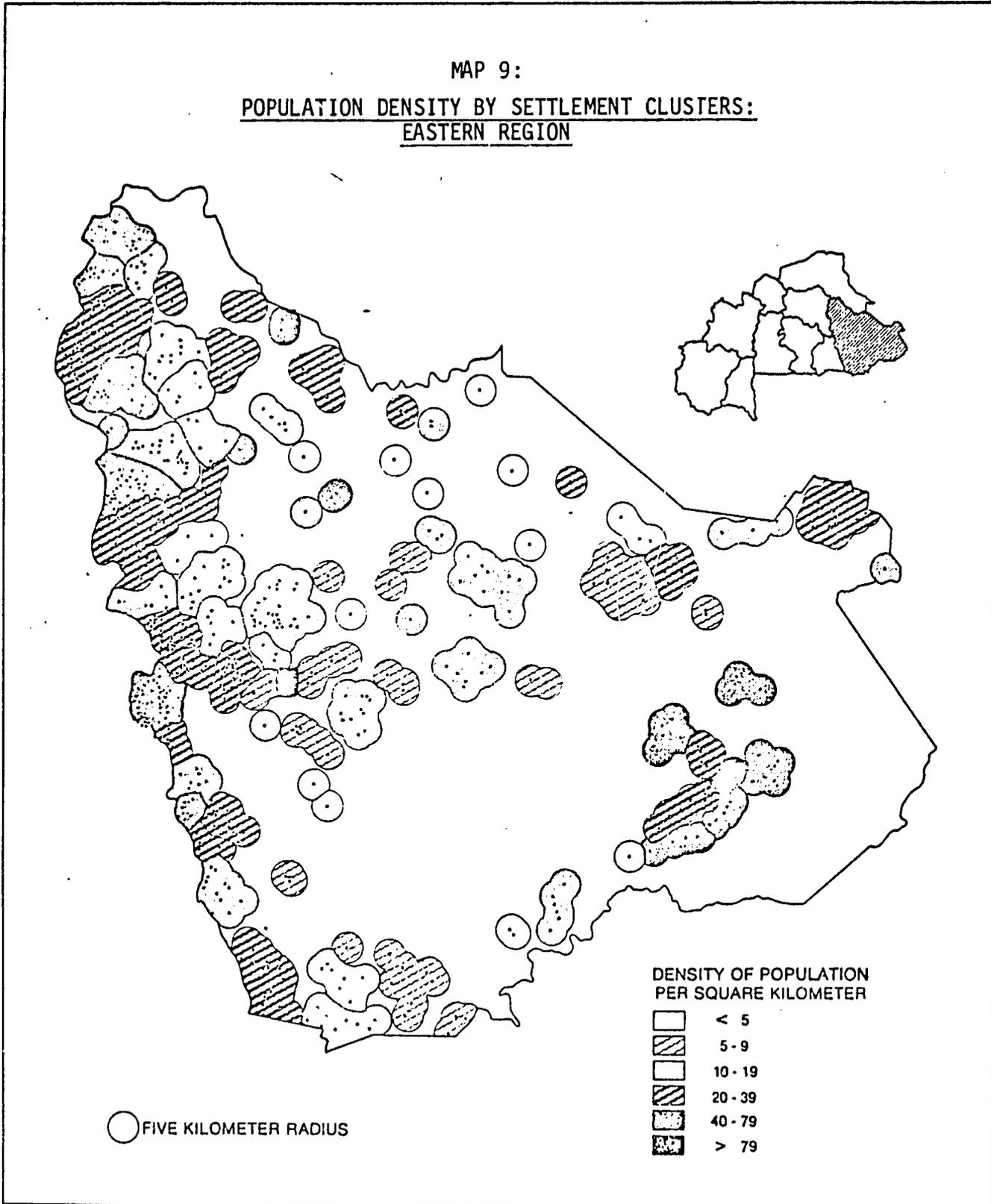
Village Population Size	BOGANDE		DIABO		DIAPAGA		COMIN-YANGA		FADA		KANTCHARI		MATIACOALI		PAMA		Total # of Villages	Total Pop '000
	# of Villages	Pop '000																
399 - below	91	19.1	77	12.4	7	1.6	21	3.7	91	17.3	18	4.3	21	4.9	35	7.6	361	70.9
400 - 799	44	24.7	12	6.3	5	2.8	9	5.2	26	14.4	9	5.6	10	5.5	16	8.0	131	72.5
800 - 1199	12	12.5	6	6.2	7	6.9	3	3.0	5	4.8	5	5.4	7	6.8	5	5.4	50	51.0
1200 - 1599	6	8.8	3	4.0	1	1.5	4	5.5	3	4.2	4	5.2	1	1.3	4	5.2	26	35.7
1600 - 1999	9	15.5	1	1.6	2	3.8	0	-	4	7.3	1	1.8	3	5.0	0	-	20	25.0
2000 - 2399	5	11.0	2	4.6	4	8.4	0	-	0	-	0	0.0	0	-	2	4.6	13	28.6
2400 - 2799	1	2.8	0	-	2	5.2	0	-	2	5.4	0	0.0	1	2.7	0	-	6	16.1
2800 - 3199	0	-	1	3.0	3	9.2	1	3.0	1	3.2	1	2.9	1	3.1	0	-	8	24.4
3200 - 3599	0	-	0	-	0	-	0	-	0	-	0	0.0	0	-	0	-	0	-
3600 - 3999	2	7.6	0	-	2	7.4	1	3.6	0	-	0	0.0	0	-	0	-	5	18.6
4000 - above	3	18.9	0	-	4	20.1	0	-	1	12.5	0	0.0	0	-	0	-	8	51.4
TOTAL	173	120.9	102	38.1	37	66.9	39	24.0	133	69.1	38	25.2	44	29.3	62	30.8	628	404.2

Source: Mehretu (1981).

MAP 8:
POPULATION DENSITY BY CANTON:
EASTERN REGION



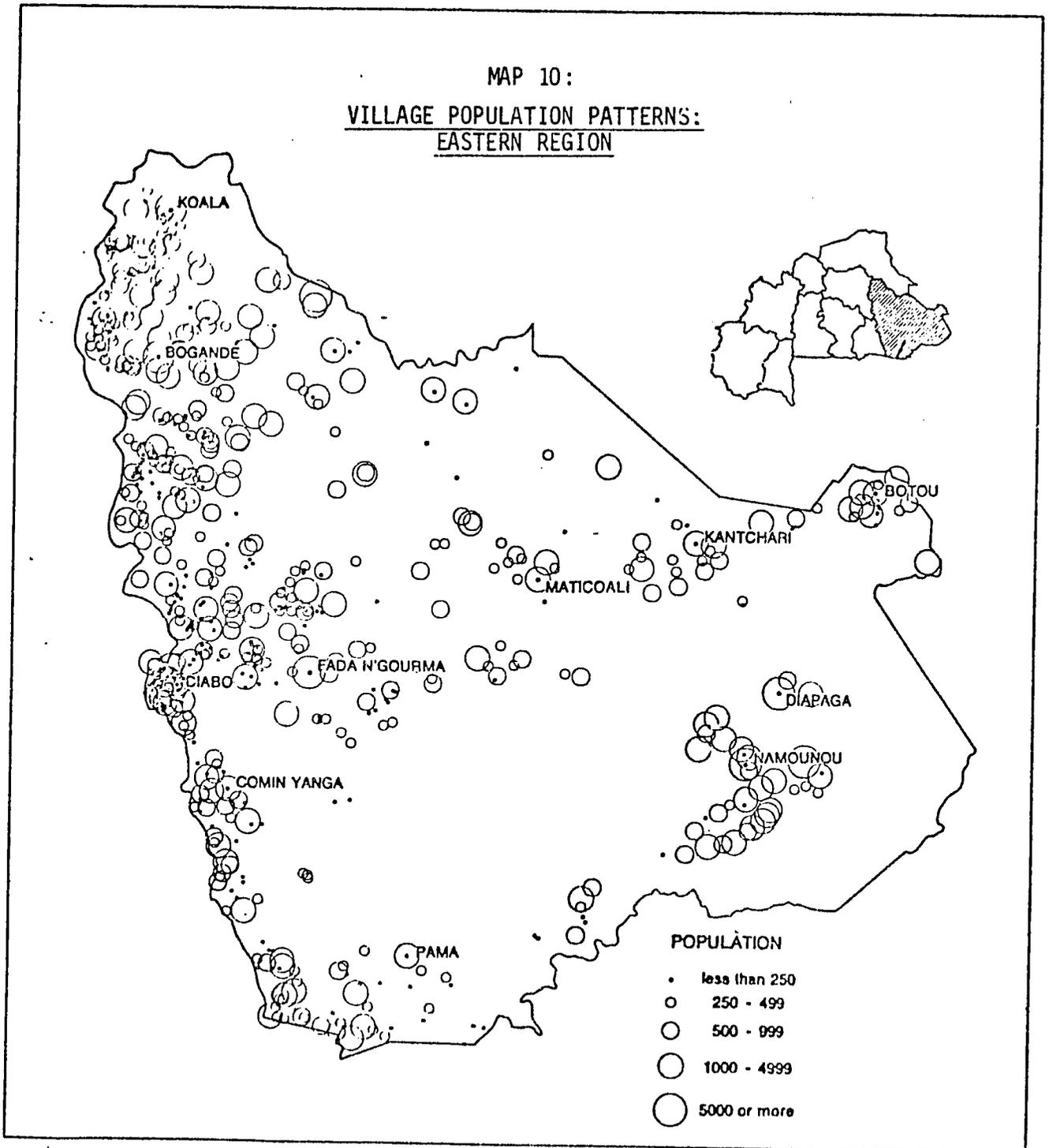
MAP 9:
POPULATION DENSITY BY SETTLEMENT CLUSTERS:
EASTERN REGION



Source: Mehretu (1981).

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MAP 10:
VILLAGE POPULATION PATTERNS:
EASTERN REGION



Source: Mehretu (1981).

D. RURAL DEVELOPMENT FUNCTIONS

As stated in the Introduction to this report, "urban functions" are the services provided in villages of varying size which have a bearing on the well-being and material progress of populations living in the villages, and in surrounding settlements. Such services are provided by the public sector and/or by the private sector; and on both accounts are reflections of the socio-economic state of the society in which they exist. Some of the services are oriented more to socio-cultural dimensions of development (e.g., churches, mosques, etc.), while others, without suggesting that there is an absence of a relationship between the two, are oriented more to the material or economic dimensions. In addition, some services tend to be relatively more common (i.e., located almost everywhere) than others. These latter are sometimes called higher-order services and cluster together in larger villages and towns. By virtue of their infrequency, the higher-order services located or "headquartered" in the larger settlements have to serve ever-larger surrounding areas; thus giving rise to the ascription to the settlements in question of the name "central" villages. Such places, then, take on a certain importance in a region as specific points where a relatively wide variety of services are integrated (at least geographically) at one or a few locations.

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The distribution of several selected sets of the more economic development-oriented services across the villages of the eastern region, their concentration at specific places, the transport network that links them together and their operational characteristics, are the subject of this section.

1. Transportation

The road system which links the principal villages and towns of the region together is a poor one, and represents a significant constraint on rural development. According to the official highway map prepared in 1978 by the Institut Geographique d'Haute Volta, there are 368 kilometers of all weather (AW) roads, 555 kilometers of dry weather (DW) roads and some 1900 kilometers of motorable trails (see Table II-7). The AW roads are those linking Fada N'Gourma to Kantchari and Niamey, Kantchari to Botou and Kantchari to Namonou.

13 The pattern of the road network parallels that of population distribution and land use (Map 11). It is dominated by two east-west and two north-south axes, which are also the better links of the region. The major east-west axis is the Fada-Botou road, and in its western portions it passes through highly densely settled areas. But most of it, especially east of Fada, passes through areas with sparse population. The second east-west axis is the Pama-Yobri road in the south which also passes through relatively sparse population areas. The north-south axis, particularly that stretching from Coalla, to Comin-Yanga, passes through highly populated areas. A second branch, the one from Fada to Pama, does not serve as many people as the first. As a whole, this axis is more accessible to a larger rural population than any other highway in the region. The second major north-south axis is the Kantchari-Kodjari link in the southeast, which passes through areas with medium population density.

As a result, accessibility to roads, measured in terms of area and in terms of population, tends to vary considerably from one part of the region to another (see Table II-7). In general, cantons can be grouped into four categories of accessibility. In the first are cantons which have access within 10 kilometers to major dry-weather roads for more than 20,000 people. These are Coalla, Piela, Fada, and Diabo, all of which are western cantons located in the most highly populated areas of the region. In the second are cantons which have 10,000 to 20,000 people served within 10 kilometers. Bilanga, Kantchari, and Gobnangou belong to this group--Bilanga and Gobnangou because of their population density and Kantchari because of the high mileage it has as a crossroads point for east-west and north-south routes in the east. In the third are those cantons which have less than 10,000 people served within 10 kilometers of a road. In the fourth are cantons which have no major roads passing through them; namely, Thion, Bilanga-Yanga, Tibga, Gayeri, Yonde, and Soudougui.

The situation is likely to be improved somewhat in a few areas upon completion of three road upgrading schemes to be financed by USAID. These are the Fada-Bilanga road (72 km), the Diabo-Comin-Yanga road (48 km), and the Namonou-Logobou road (39 km). It should, however, be kept in mind that accessibility measures such as those indicated above can be misleading. Whether or not a road is motorable in the rain season (or for that matter, in the dry

season) depends to a great extent on the degree of maintenance a particular link may have received in its recent past, the nature of the vehicle being considered (truck, car, jeep, motorbike, etc.) and the resoluteness of the particular driver in question. All these things being quite variable, the motorability of the road network also tends to be variable. The so-called all-weather road running east-west through Fada, for example, crosses a muddy valley bottom at Tangaye. Heavy trucks find it difficult to cross even in moderate rains, and several overturned there in 1979, and again in 1980.

Maintenance of the basic road network in the region is the responsibility of the Service Entretien Routes Nationales (SERN) of the Ministry of Public Works. Its efforts, like that of most public services, are heavily constrained by budgetary limitations and such things as it does tend to be sporadic and unpredictable. The same, necessarily, is true of community efforts whenever they occur. So, from year to year one cannot always be certain whether one can get to wherever across most of the region, at least insofar as vehicle travel is concerned.

Vehicle ownership within the region is limited. The MSU survey indicated that there were 1773 motorcycle and mopedettes, 1087 donkey carts, 157 private cars and 35 private trucks scattered throughout the area; with Bogande possessing the largest number of the first two modes, and Fada N'Gourma the last two.

By and large, the operators of these latter, and of other vehicles from outside the region, manage to reach most of the significant localities at some point during a given year, although the particular periods may not be the most opportune. A survey undertaken by the MSU team in 1980 indicated that over a 6-month period almost 60% of the villages had been visited by a car, and almost 50% by a truck (see Table II-8); and that such villages tended to be more frequent in the sectors of Diapaga, Kantchari, Matiacoli, and Bogande. All-weather roads, of course, are closer to villages in these sectors than in others. Also, the observation that 86% of Diapaga's villages and 75% of Bogande's were visited by trucks is a reflection of their position as major producing areas, particularly of groundnuts. The overall pattern of visitation is testimony to the determination of Upper Volta's drivers.

TABLE II-7:
ROAD LENGTHS & ACCESSIBILITY IN THE EASTERN REGION, BY CANTON

CANTON	ALL WEATHER KM	DRY WEATHER KM	MOTORABLE TRAILS KM	TOTAL KM	SQ. KM	% OF AREA HAVING
					AREA + AW & DW	ACCESS TO AW/DW in 10km
Bogande	0	33	222	255	110	18
Coalla	0	48	71	119	37	55
Thion	0	0	52	52	0	0
Piela	0	31	81	112	25	81
Bilanga	0	52	123	175	37	55
Bilanga-Yanga	0	0	12	12	0	0
Diapangou	5	0	8	13	114	18
Fada N' Gourma	60	104	28	192	27	73
Yamba	0	19	173	192	106	19
Diabo	29	0	61	90	21	94
Tibga	0	0	47	47	0	0
Gayeri	0	0	223	223	0	0
Matiacoali	59	0	74	133	71	28
Comin-Yanga	0	24	31	55	53	38
Yonde	0	0	9	9	0	0
Madjoari	0	37	13	50	52	18
Pama	0	113	100	213	40	50
Soudougou i	0	0	64	64	0	0
Botou	40	0	76	76	44	46
Kantchari	128	0	0	128	26	78
Bizougou	43	16	105	164	81	25
Gobnangou	4	78	327	409	61	33
TOTAL	368	555	1,900	2,823	54	37

Source: Mehretu (1981).

TABLE II-8: ROAD VEHICLE OWNERSHIP & CAR/TRUCK VISITING

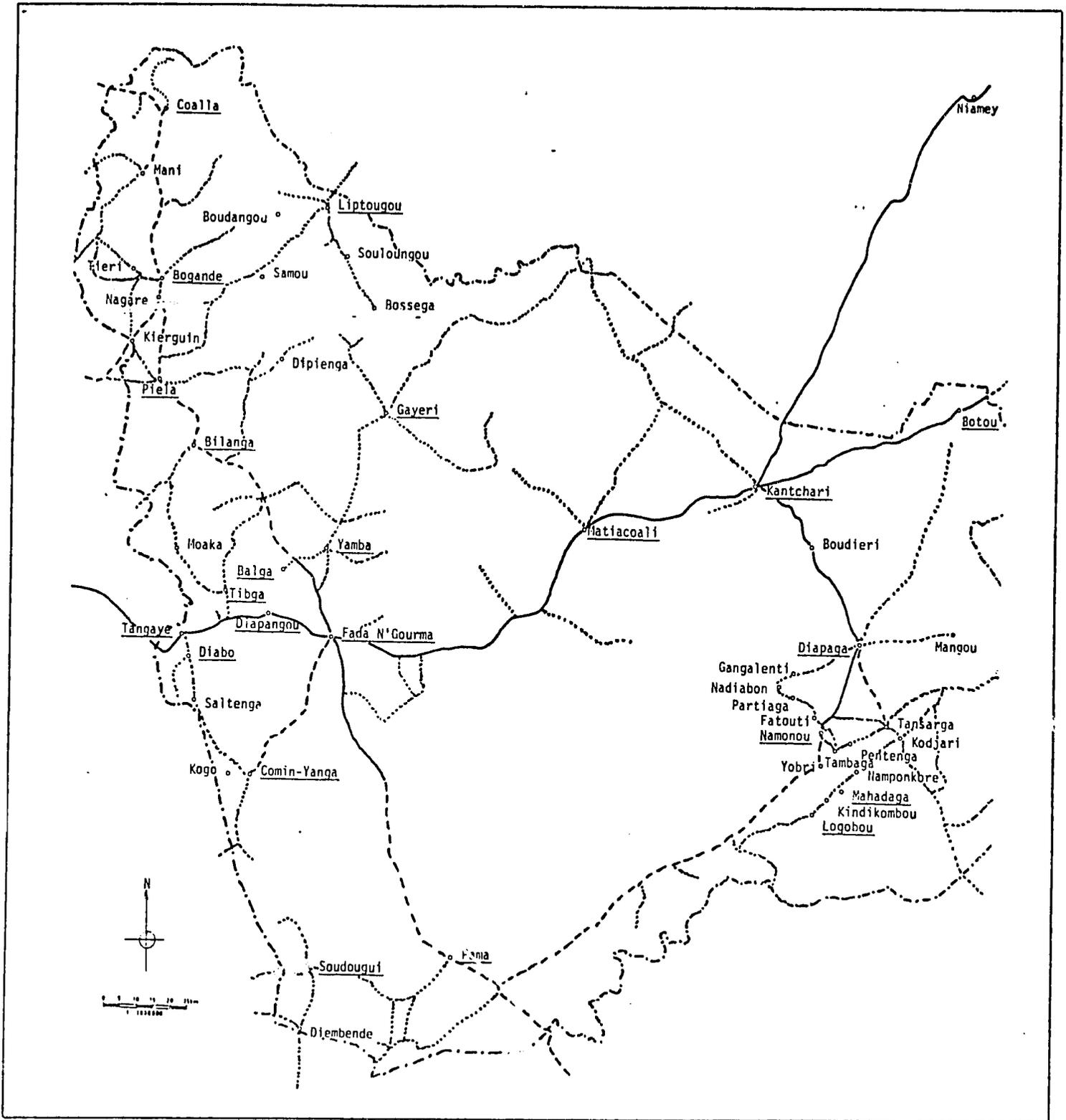
		BOGANE		DIABO		DIAPAGA		COMIN-YANGA		% of Villages
		% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	
VISITING PATTERN	Car Visits	65.3	-	46.9	-	91.4	-	35.7	-	58.9
	Truck Visits	74.7	-	33.3	-	86.1	-	16.3	-	47.4
OWNERSHIP PATTERN	Motor Bikes	63.1	694	44.7	167	78.4	209	27.9	56	46.3
	Donkey Carts	50.6	422	39.8	150	54.1	121	27.9	37	29.9
	Private Cars	5.1	24	5.8	4	24.3	23	0.0	0	3.7
	Private Trucks	0.6	1	1.9	ND	18.9	14	0.0	0	1.5

Source: Mehretu (1981)

CAR/TRUCK VISITING PATTERNS, EASTERN REGION, BY SECTOR, 1980

COMIN-YANCA		FADA		KANICARI		MATIACCALI		PAPA		TOTAL	
% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#
35.7	-	58.9	-	76.3	-	65.9	-	42.2	-	59.2	-
16.3	-	47.4	-	28.9	-	47.7	-	24.2	-	49.4	-
27.9	56	46.3	240	52.6	189	50.0	120	30.6	98	50.8	1,773
27.9	37	29.9	186	44.7	132	13.6	18	12.9	21	36.6	1,037
0.0	0	3.7	77	36.8	28	2.3	1	0.0	0	6.8	157
0.0	0	1.5	14	7.9	6	0.0	0	0.0	0	2.2	35

ROAD NETWORK OF THE EASTERN REGION



- All-weather road (AW)
- - - Dry-weather road (DW)
- Motorable trails
- · - · - Limits of region
- Bilanga Principal central villages
- Yobri Other principal villages studied by UFRD project

2. Agricultural Services

As indicated earlier, services to agriculture are predominantly provided by the ORD, a public agency, and in 1979 its personnel numbered 343 individuals. About 228 of these were stationed at the sectoral, subsectoral, and village levels (see Table II-9). Personnel stationed at sector headquarters usually consist of a "chef" or director, a superintendent responsible for storage, marketing and distribution, a livestock supervisor (usually a veterinary nurse), a statistician and someone responsible for credit and cooperative operations. Quite often one or another of the latter four personnel are not provided to a sector. The subsector is staffed by a subsector chef or director, usually an extension agent, who is responsible for the other various workers in his area. These latter are composed mainly of regular extension agents, teachers for the CFJA and animators engaged in community development efforts. On the average, there is one extension agent in the field for every 340 farms; or one for approximately every 3600 people.

Two main themes characterize extension: polyvalence of extension agents, and the methodology of encadrement. Theoretically, each extension agent (encadreur) is responsible for the entire process by which farmers are exposed to, and adopt, technical themes and packages, since he has been trained at the theoretical and practical levels in a multi-disciplinary approach to agriculture.

His first task is to sensitize the farmers to any theme or innovation which is to be expounded, or any input to be adopted. Once an individual farmer or group has understood the innovation, his next task is to animate, to establish the necessary organization or structure for the adoption of the innovation. Thirdly, he must vulgarize, or expand the adoption of the innovation over a wider population or area. Finally, he must monitor the peasants who have adopted the package or innovation to ensure their proper use or handling of it. The total of these four tasks constitutes encadrement, and those who have been exposed successfully to the whole process are considered to be encadre.

Each extension agent is responsible for an extension unit (unite d'encadrement) which usually includes from three to six villages. The norms established by the ORD are five villages per extension unit, nor more than 3000 inhabitants for the five villages, and no villages more than 25 kilometers from the center of the unit.

19 Not all extension units can meet all criteria, but they nevertheless remain valid guidelines. Increasingly, extension agents are responsible for carrying out this process for a variety of themes which, though they do not constitute a well-integrated technical package, are supposed to be interrelated and together lead to increases in production. In addition, they are responsible for carrying out the commercialization campaign at the end of the production cycle. Since they are polyvalent, they are also responsible throughout the year for other programs which are not necessarily agriculture-related, such as non-formal literacy training, women's programs, animal husbandry practices as distinct from cultivation, health, and local enterprise development.

At the village level, the extension unit is commonly the village group (or groupement villageois-GV). In theory, the principal value of such groups is as a means of increasing farmer participation in the development process. According to this, village groups are primarily pre-cooperative institutions which have potential for credit, banking, marketing, and rural enterprise activities. They are seen, then, as being eventually a venue for independent decision-making by farmers, and not only as a convenience for an extension service. They are supposed to be based on traditional organizational patterns which evolve in various directions as functions are discerned.

Although village groups were set up as multi-purpose organizations, the present situation is apparently that: (a) groups are used for the provision of medium-term credit and to facilitate the work of over-extended extension agents; (b) aside from their function as "moral guarantors" of credit provided to individuals who are members, they appear to have no legal or quasi-legal standing; (c) they are encouraged to set aside communal fields on which new or known cash crops are grown using recommended cultural practices; (d) the produce from these communal fields (which are usually quite small) is marketed

through the ORD, supposedly at a guaranteed price, and profits are shared among group members. The groups are thus viewed as serving the collective interests of the ORD more than as a means to increase mass participation in development decision-making and to improve local skills in self-management.

In 1980 there were some 329 village groups in the region, containing about 5300 members. Half of them were described as "strong" and half as "weak" by the ORD; the criteria for such classification being the period of existence (two years is a minimum), stability and cohesion of membership, loan repayment characteristics, degree of collaboration with the extension service, demonstrated initiative and production results obtained (see Table II-10). The total number of groups and members declined significantly between 1979 and 1980. 80

Although one cannot make too much of a one-year comparison, it has been suggested that the majority of GVs are sustained by members only because of the advantage provided for increased access to credit and other services provided the ORD; and since such services are spread very thin, interest in GV participation is not particularly strong. However, other suggestions focus more on the characteristics of the ORD and its personnel as determining factors

It has been argued that because of the theory behind encadrement, agents are responsible for too many kinds and levels of intervention, many of which they themselves poorly understand. They are frequently unable thoroughly to monitor the adoption of themes and inputs even at the level of the village group. The availability of technical information seems variable, and despite ORD efforts to carry out on-the-job training, a considerable variability of competence and skills is evident among agents at all levels. This situation is exacerbated by recurrent decisions to move all of the sector heads and some subsector chiefs and agents around the region. This has led to confusion and noticeable lessening of commitment at all levels in the field.

Also, although important steps have been taken to improve the lifestyle and motivation of individual agents, including the doubling of the minimum base pay and improved transport, they are essentially bound in an extremely

hierarchical structure in which merit in job performance is difficult to measure or reward. Given the hierarchy, they tend to work to please their superiors rather than to meet the needs of the farmers.

81 Even so, the quality and energy of the agents is inevitably variable. While there are some who perform admirably, there are many who do not seem to be particularly interested in what they are doing or particularly capable of explaining it. One must understand that their task is exceedingly difficult, far less straightforward than that of a schoolteacher or dispensary nurse. These are the least-trained and professionally qualified, the lowliest in status and the loneliest and most isolated of all the public servants who work in the rural areas. They are for the most part young men, still without any depth of practical experience in agriculture, and normally without any family acquaintance in their extension districts. The fact that an encadreur has no office or place of business is not important, for his days should be spent in the fields. The fact that he can rarely find decent accommodation for himself is more important. A good man can in time overcome these problems, but not all will survive the first difficult and discouraging years.

Comparisons are invidious but can also be useful. At Namongcu, the Redemptorist Mission has a catechists' training center. The trainees, ordinary farmers and villagers and their families, are brought in for short periods of training, during which religious instruction may dominate--naturally--but instruction is also given in improved agricultural practices, preventive public health measures, nutrition and child-care, and other practical subjects. The product is a family capable of helping its fellow villagers in a variety of ways, setting examples that will be convincing. The ORD extension agent cannot practice what he preaches, for he has no land and no family to practice it with.

The ORD subsector chief is slightly more comfortably situated. He too may have some difficulty in finding a place to live, but he may have a little office, and he may have a warehouse for the storage of agricultural implements and supplies. He probably does not have the means of transporting supplies to the villages in his subsector, though the ubiquitous donkey-cart may make up for this deficiency. The sector-chief is better off still. Although the

equipment of every sector is not yet complete, most sectors have good and adequate storage, reasonable office space (sometimes part of the store), probably some means of transportation, perhaps a pick-up truck, and a small and competent staff. The sector chief, too, may have some difficulty in finding accommodation for himself and his family, even in the larger villages in which sector headquarters are usually set up.

Through these various factors, extension services appear to remain greatly undervalued by the rural population. More often than not, if it had them, a village would care very much if it were to lose its schoolteacher or nurse, but would not greatly mind if its extension agent or subsector chief were to be removed.

These general issues apply more specifically to the ORD's relationship to male village groups. There are also a few women's groups (GF) in which the major emphasis is on communal cultivation of cash crops and their sale primarily through the ORD. The emphases on introduction of new cultural practices, the extension of credit for inputs, and the stocking of produce are usually absent in the case of women's groups; whether or not there is an animatrice available to work with the group in cooperation with the male extension agent. The GF in 1980 numbered 81, with 1350 members, and was a significant increase over the numbers in 1979 (see Table II-11). Moreover, the number of "strong" GF increased and the "weak" decreased over the same periods, thus demonstrating it has been said, that cooperative organization is more effective when organized around local motives and methods rather than around "top-down" (i.e. ORD) requirements. Women usually work together in the fields, and for various reasons which have little relationship to formal government objectives.

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TABLE II-9: .
DISTRIBUTION OF NON-HEADQUARTERS ORD PERSONNEL, EASTERN REGION, BY SECTOR, 1979

SECTOR	SECTOR PERSONNEL	SUB-SECTOR PERSONNEL	EXTENSION WORKERS			OTHERS	TOTAL
			CFJA	ANIMATORS	EXT. AGENTS		
Bogande	5	5	7	1	18	1	36
Díabo	3	2	5	2	18	4	34
Diapaga	4	3	2	1	29	2	41
Fada	4	4	6	3	14	1	32
Kantchari	5	2	2	3	12	1	25
Matiacoali	5	3	-	3	10	-	21
Pama	5	3	2	1	10	1	22
Comin-Yanga	4	2	2	-	9	-	17
TOTAL	35	24	26	13	120	10	228

Source: FAO (1980).

TABLE II-10:
DISTRIBUTION OF VILLAGE GROUPS (GV), EASTERN REGION, BY SECTOR, 1979 & 1980

SECTEUR	GV FORTS				GV FAIBLES				TOTAL			
	Nombre		Membres		Nombre		Membres		Nombre		Membres	
	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980
Bogande	40	53	1,185	1,371	29	26	777	462	69	79	1,962	1,833
Comin-Yanga	4	7	37	80	8	3	82	48	12	10	119	128
Diabo	22	12	268	145	28	28	369	292	50	40	637	437
Diapaga	27	32	210	263	31	20	457	160	58	52	667	423
Fada	35	23	671	503	18	32	422	553	53	55	1,093	1,056
Kantchari	25	23	449	392	27	15	347	313	52	38	796	705
Matiacoali	17	16	190	179	32	35	410	450	49	51	608	629
Pana	N/A	N/A	N/A	N/A	4	4	47	47	4	4	47	47
TOTAL	170	166	3,010	2,933	177	163	2,919	2,325	347	329	5,929	5,258

Source: FAO (1980).

TABLE II-11:
DISTRIBUTION OF WOMEN'S VILLAGE GROUPS (GF), EASTERN REGION, BY SECTOR, 1979 & 1980

SECTEUR	GF FORTS				GF FAIBLES				TOTAL			
	Nombre		Membres		Nombre		Membres		Nombre		Membres	
	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980
Bogande	4	4	238	318	3	1	47	5	7	10	285	323
Comin-Yanga	1	6	7	59	6	6	60	56	7	12	67	115
Diabo	1	5	21	74	5	3	50	40	6	8	71	114
Diapaga	3	5	22	53	3	-	33	-	6	5	55	53
Fada	2	4	35	76	12	4	172	86	14	8	207	162
Kantchari	5	5	80	72	5	9	70	196	10	14	150	268
Matiacoali	2	2	25	25	20	20	257	257	22	22	282	282
Pama	1	1	12	12	1	1	14	14	2	2	26	26
TOTAL	19	37	440	689	55	44	703	654	74	81	1,143	1,343

Source: FAO (1980).

3. Small Enterprise¹

A recent survey has indicated the existence of at least 12,000 small scale non-service enterprises in the region, and which employ over 21,000 people (see Table II-12).² The bulk of these, about 80%, are in the traditional activities of pottery, weaving, dolo making (beer), peanut oil, shea butter, and soumbala production.

Each enterprise employs about an average of 2.1 workers, most of which, 1.9 workers per enterprise, consist of the enterprise operator and other family members. Hired workers and apprentices make up the remaining portion of employment. As indicated in Table II-12, 42% of all enterprises employ only one person; ranging from less than 3% for pharmacies to over 80% in the case of barbers, soumbala making and weaving. On the high employment side, blacksmithing, carpentry and gas stations were the only enterprises employing more than three persons. The largest enterprise sampled employed 13 persons.

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Agricultural processing enterprises are the most important in terms of overall current employment. They are all home processing activities which use local crops or collected nuts and seeds. They currently require little capital and largely use simple hand technologies. Dolo (beer) making employed the largest number of persons. It is present in almost every village, is almost exclusively pursued by women, and can generate significant profit. It is, however, subject to growing competition from factory-bottled beer. Since shea butter is the major cooking oil used in the region, the extraction process is widespread and engages a large number of women. Hand methods predominate, though sometimes nuts are ground in mechanical grain mills. The

^{1/} Wilcock (1980) and Mehretu (1981)

^{2/} See Note 1, Table II-12. The total number of "enterprises" was enumerated at about 16,400, of which approximately 2650 were involved in the provision of skilled services.

hand pounding and cooking method of peanut oil extraction in current widespread use also uses grain mills for grinding frequently. The manufacture of soubala, the major condiment added to sauces, is also quite widespread. Soybeans are increasingly replacing or supplementing locust beans in the process. Profit margins in this activity can be considerable, particularly if output can be marketed in significant quantities in major markets like those of Ouagadougou or Niamey.

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Food processing, essentially containing grain milling and bread baking, are becoming increasingly important in the Eastern Region. While minor technological improvements could be made in milling, the basic technology is a standard motor mill combination which is well adapted to local conditions. In a few larger centers electrification could permit mills to be driven by electric motors, which would probably be substantially cheaper in terms of energy costs and would reduce the incidence of repairs. The major barrier to the spread of this useful service enterprise is the increasingly high price of imported machinery. Bread baking uses a mud oven technology which can be improved in basic design and in terms of fuel and baking efficiency. The Fada N'Gourma bread market is probably large enough to support a modern bakery. While questions can be raised about the wisdom of an increased dependence on imported wheat flour (or wheat/millet mixtures) this is an enterprise type which is strongly associated with urbanization and whose product is widely appreciated.

In the area of small manufacturing, important enterprise types are weaving, pottery, blacksmithing, cloth dyeing, tailoring, welding, carpentry and leatherwork. Traditional small-loom weaving is primarily a dry season activity engaged by men. In recent years manufactured cloth and imported used clothing have competed strongly with woven bands. There is still a strong market for rolls of hand woven cloth and progress could be made in this industry through the introduction of larger hand looms (this has been done already by Catholic missions in Upper Volta) and through organization of weavers' cooperatives to decrease input costs and increase collective marketing power, which has already been initiated by Partnership for Productivity (PPP) in Fada.

Pottery is widespread, employs a substantial number of people and produces products which are largely functional in nature (household storage, cooking and water containers and large containers used in traditional beer production and retailing). Most problems reported by pottery enterprises are related to the technical steps involved in the production and transportation of clay pots. This is an enterprise where feasible technical alternatives may exist and where the product line could be expanded considerably.

Most traditional blacksmith work is in the area of manufacturing hoe heads and other hand tools for agriculture. There is considerable potential for the expansion of manufacturing, particularly in the production and repair of animal traction spare parts and equipment. An example of an effective "modern forge" in Piela has demonstrated this potential already. Numerous blacksmiths from the Region have been trained by CNPAR in Ouagadougou to provide the local third tier to the ARCOMAS-COREMAS animal traction equipment manufacturing and repair system. These blacksmiths can receive loans for new equipment from CNPAR and are supposed to also receive assistance in terms of input supply. But access to credit and raw materials remains a major problem, particularly for those blacksmiths who are not part of the CNPAR network.

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Indigo cloth dyeing appears to be a declining industry but still employs a substantial number of persons, particularly in the most isolated areas. There is still a fairly strong market for traditional dyed cloth for ceremonial occasions such as weddings. One area of potential expansion is the production of batik and tie-dyed cloth. This was demonstrated by a group of Fada women who, with the assistance of an MSU audio-visual technician began production of these popular types of cloth and won the first prize in the 1980 Fada Regional Fair. Most batik and tie-dyed cloth is imported to Upper Volta from coastal countries such as Sierra Leone which have long histories of dyeing. The technology could be easily started in Upper Volta particularly if low cost bulk ordering of imported dye stuffs could be arranged.

The major technical change for the tailoring industry, introduction and use of the sewing machine, has taken place on a widespread basis. Improvements in firm organization, diversification of product line, mass production of standard clothing (such as occurs on a very large scale in Ouagadougou) could all be accomplished in the region. In addition, access to electricity could permit some tailors to fully utilize the more complicated embroidery machines which are in common usage in larger urban centers.

89 Two basic welding technologies are in use: acetylene gas welding and electric arc welding. Most gas welding is used for repairing tools, bicycles and automobiles, but can be used in manufacturing small articles. Niamey, for example, has a thriving industry in welded metal chair frames which are completed with sisal or plastic rope. The few electric welding enterprises in the region can also do repair work, but have a very successful and expanding market for metal doors and windows for housing construction. Publicly generated electricity could have a major impact on the welding industry as it does in Ouagadougou.

Currently, carpentry employs a relatively small number of persons in the region. While this trend is likely to continue due to limited market opportunities, there is room for increasing the capitalization and productivity of carpentry firms. This is another type of enterprise where public electricity could make a critical impact.

Leatherwork, like cloth dyeing, is a declining industry. The importation of factory-made shoes and the operation of the BATA shoe factory in Upper Volta has almost completely destroyed the traditional shoe-making industry and much associated leatherwork. With the exception of enterprises making articles for animal transport, particularly in the Kantchari and Bogande areas, much of the leatherwork industry has been reduced to minor shoe and other leather repairs. There is almost no leatherwork in the region oriented towards the tourist trade. There seems, however, to be a great potential for improving leatherworking given the region's large animal populations. The production of quality tanned leather is an obvious bottleneck to revitalizing the leatherwork industry. It is of interest to note that almost all

of the leather produced by the tannery in Ouagadougou is exported to Europe for transformation into shoes and bags, some of which may then be reimported into Upper Volta for purchase by a small number of affluent consumers.

While the total of over 21,000 persons engaged in non-service small-scale enterprise, noted earlier, represents only about 5% of the region's population, the impact of their activities is far greater. With an estimated average household size of about 7.3 persons, it has been calculated that 15% to 20% of households in the region draw income from the employment of one or more of their members in one or another of the various enterprise types described.

The spatial distribution of these enterprises varies somewhat, depending on the nature of the particular activity.¹ In the case of agricultural and food processing enterprises, the preparation of dolo is the most widespread activity; being found in 42% of the region's villages, at all village sizes (see Tables II-13 and II-14). This would mean that on the average, in the villages that have them, one would find two such enterprises. The processing of shea butter is numerically more important, but is concentrated in 28.3% of the villages, suggesting that there are 12 such establishments in each of the 180-odd villages that contain them. Other relatively widespread activities are butchers, soumbala makers, and cous-cous makers. More centralized activities, both in terms of numbers of villages where they are found and the sizes of the villages, are, in order of centrality, bakeries, flour mills, peanut oil processing units and rice hullers.

Of the region's 5400 manufacturing establishments, almost half are weavers, and are the most widely dispersed of all small enterprises. They are to

^{1/} The discussion of spatial distribution is drawn from Mehretu (1981). Although using the same original data set as Wilcock (1980), it discusses some different enterprise types and uses somewhat different general categories. Therefore the classifications used in Table II-12 are not identified with those used in Tables II-13 to II-18.

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 be found in 48% of all villages (see Table II-15) and throughout the village size distribution (see Table II-16). This is also largely the case with blacksmiths and pottery making. The manufacture of furniture, dyeing of cloth and tailoring is somewhat less common and more concentrated. However, although the frequency of finding villages with manufacturing units increases as one moves up the size hierarchy, similar to the case of food processing enterprises, there is a decline in frequency beyond a size of 2000 inhabitants (see Table II-16). It has been suggested that this happens because of increasing competition from non-local manufactured goods which tend to be more available in larger places.

With regard to skilled services, of which there are estimated to be over 2000 units in the region, there are quite clearly two distinct patterns of spatial distribution (see Tables II-17 and II-18). In the first one are those with a high degree of dispersion, and include fortune-tellers, midwives and traditional healers. They are located in 40.7%, 23.9% and 22.1% of all villages, respectively, and throughout the size hierarchy. Together these activities represent over 90% of all service enterprises. In the second are activities which appear to require higher village threshold sizes for purposes of operation. These include barbers, masons, carpenters and repair mechanics.

Finally, it should be noted that many of the enterprise types described in the foregoing have a certain degree of mobility in terms of their operating stations. Although a particular village may not have, for example, a mechanic to repair molyettes living in it, if that village has a weekly or bi-weekly market of significance, it is highly probable that a mechanic will be working there on those days. By the same token, the mechanic in question will not be in his village of residence during market days elsewhere. Also, during major markets, particularly in the harvesting period, entrepreneurs from outside the region such as those operating peanut shellers or rice hullers may visit several localities. In general, the spatial organization of enterprise activities tends to be dynamic and their numbers tend to rise and fall with changes in the monetary seasons. Therefore, the static description of small enterprise locations may not accurately reflect the actual levels of service provided to rural populations.

TABLE II-12: SMALL ENTERPRISE CHARACTERISTICS IN THE EASTERN REGION, 1979

ENTERPRISE GROUP	ENTERPRISE ^{1/} TYPE	NUMBER OF ENTERPRISES	% OF 1 PERSON ENTERPRISES	AVERAGE NUMBER OF PERSONS EMPLOYED				TOTAL EMPLOYMENT	
				Owner & Family	Hired Workers	Apprentices	Total	Number	%
METALWORK	1. Blacksmithing	407	3	3.44	.03	.11	3.58	1,453	6.8
	2. Welding	N/A	21	1.93	0	.43	2.36	-	-
CRAFTS	3. Carpentry	35	14	1.86	.57	1.14	3.57	125	0.6
	4. Pottery	1,126	61	1.75	0	.04	1.79	2,016	9.5
	5. Leatherwork	N/A	69	1.51	0	.04	1.55	-	-
CLOTHING	6. Tailoring	428	56	1.40	.01	.20	1.61	689	3.2
	7. Weaving	2,499	85	1.15	0	.04	1.19	2,999	14.1
	8. Cloth Dyeing (Indigo)	599	59	1.52	0	.07	1.99	1,192	5.6
FOOD PROCESSING	9. Grain Milling	105	12	1.72	.51	.16	2.39	251	1.2
	10. Baking	68	16	2.28	.16	.08	2.52	171	0.8
REPAIRS	11. Motorbike	89	18	1.61	0	.96	2.57	229	1.1
	12. Radio	N/A	50	1.25	0	.25	1.50	-	-
RETAIL DISTRIBUTION	13. Gas Stations	N/A	33	1.33	1.00	.67	3.00	-	-
	14. Gas Selling	N/A	24	2.03	.15	0	2.18	-	-
	15. Pharmacies	33	0	2.15	.14	.14	2.43	80	0.4
	16. General Stores	208	30	1.94	.15	.07	2.16	451	2.1
OTHER SERVICES	17. Bars	181	20	1.84	.37	.10	2.31	418	2.0
	18. Restaurants	165	33	1.45	.13	.02	2.60	429	2.0
	19. Coffee Stands	42	74	1.16	.06	.06	1.28	54	0.3
	20. Photographers	11	67	1.33	0	.33	1.66	18	0.1
	21. Barbers	46	83	1.17	0	0	1.17	54	0.3
AG PROCESSING	22. Dolo Processing (beer)	1,581	18	2.47	.03	.07	2.57	4,063	19.2
	23. Peanut Oil	428	50	1.68	0	.03	1.71	732	3.5
	24. Shea Butter	2,212	52	1.74	0	0	1.74	3,849	18.1
	25. Soumbala	1,560	86	1.22	0	.03	1.25	1,934	9.1
TOTAL		11,823	42%	1.92	.06	.11	2.09	21,207	100.0

Source: Wilcock (1980).

NOTES: ^{1/} Excludes following enterprise types: Cous-cous making (844 enterprises), rice husking by hand (548 enterprises), butchers (616), charcoal makers (16), furniture makers (341), traditional midwives (567), fortune tellers (1,320), healers (524), masons (66), carpenters (35), car repair, watch repair and bookstores. Employment in these enterprises may total between 5,000 and 10,000 individuals.

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TABLE II-13:
DISTRIBUTION OF SMALL FOOD PROCESSING ENTERPRISES, EASTERN REGION, BY SECTOR, 1979

ENTERPRISE TYPE	BOGAHDE		DIABO		DIAPAGA		COMIN-YANGA		FADA		KANTCHARI		MATIACOALI		PAMA		TOTAL ORD % OF VILLAGES	TOTAL ORD #
	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#		
Dolo Makers	21.0	117	63.1	356	81.1	298	67.4	99	45.5	338	31.6	145	15.9	26	46.8	202	42.0	1,581
Soumbala	10.0	112	43.7	432	75.7	419	37.2	60	36.6	385	15.8	40	6.8	11	16.1	101	27.2	1,560
Cous-Cous	30.7	431	9.7	18	13.5	25	16.3	21	31.3	248	10.5	25	25.0	51	11.3	25	21.3	844
Rice Shelling	14.2	130	35.0	195	24.3	88	16.3	20	10.4	56	5.3	12	0.0	0	14.5	47	16.1	548
Peanut Oil	13.6	208	9.7	41	32.4	70	14.0	15	3.0	28	10.5	30	0.0	0	14.5	36	11.0	428
Shea Nut Butter	14.8	405	47.6	447	45.9	296	25.6	82	38.8	673	7.9	64	20.5	47	17.7	198	28.3	2,212
Bakers	6.8	19	7.8	9	18.9	10	7.0	3	5.2	18	5.3	5	4.5	4	0.0	0	6.2	68
Flour Mills	5.7	15	12.6	17	21.6	20	4.7	3	6.7	22	5.3	7	2.3	4	9.7	11	7.8	73
Butcnery	42.6	215	41.7	126	35.1	52	25.6	30	29.9	133	18.4	22	22.7	21	12.9	17	32.3	616
TOTAL		1,915		1,649		1,318		333		1,945		358		198		643		1,956

Source: Mehretu (1980).

= Total number of establishments.

TABLE II-14:
DISTRIBUTION OF SMALL FOOD-PROCESSING ENTERPRISES, EASTERN REGION, BY VILLAGE SIZE, 1979

VILLAGE POPULATION	% OF VILLAGES								
	DOLO	SOUMBALA	COUS-COUS	RICE SHELLING	PEANUT OIL	SHEA BUTTER	BAKING	FLOUR MILLING	BUTCHERS
399 - below	34.3	22.2	14.7	11.6	6.4	26.9	1.9	2.2	22.7
400 - 799	44.3	27.5	26.0	13.7	9.2	27.5	3.1	5.3	35.1
800 - 1,199	52.0	36.0	30.0	20.0	16.0	30.0	14.0	8.0	38.0
1,200 - 1,599	76.9	38.5	38.5	50.0	34.6	50.0	11.5	26.9	76.9
1,600 - 1,999	50.0	20.0	40.0	10.0	15.0	40.0	10.0	20.0	45.0
2,000 - 2,399	61.5	53.8	46.2	46.2	38.5	30.8	30.8	30.8	69.2
2,400 - 2,799	50.0	16.7	0.0	0.0	0.0	0.0	33.3	33.3	33.3
2,800 - 3,199	50.0	62.5	25.0	37.5	25.0	37.5	37.5	50.0	62.5
3,200 - 3,599	-	-	-	-	-	-	-	-	-
3,600 - 3,999	80.0	80.0	60.0	80.0	80.0	40.0	20.0	80.0	80.0
4,000 - above	87.5	50.0	37.5	37.5	37.5	0.0	75.0	62.5	87.5
TOTAL %	42.0	27.2	21.3	16.1	11.0	28.3	6.2	7.8	32.3

Source: Mehretu (1981).

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TABLE II-15:
DISTRIBUTION OF SMALL MANUFACTURING ENTERPRISES, EASTERN REGION, BY SECTOR, 1979

ENTERPRISE TYPE	SECTORS																TOTAL ORD % OF VILLAGES	TOTAL ORD #
	BOGANDE		DIABO		DIAPAGA		COMIN-YANGA		FADA		KANTCHARI		MATIACOALI		PAMA			
	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#		
Charcoal Makers	1.1	2	5.8	10	0.0	0	0.0	0	2.2	4	0.0	0	0.0	0	0.0	0	1.7	16
Potters	44.3	420	29.1	206	5.4	30	14.0	23	26.1	211	28.9	73	22.7	36	27.4	127	27.2	1,126
Weavers	55.1	947	57.3	417	64.9	291	46.5	141	54.5	446	42.1	126	18.2	57	29.0	74	47.9	2,499
Cloth Dyeing	33.3	260	28.2	126	51.4	72	0.0	0	9.7	46	26.3	92	0.0	0	1.6	3	20.4	599
Furniture Makers	21.6	101	9.7	13	48.6	106	2.3	1	20.1	62	21.1	30	15.9	14	12.9	14	18.4	341
Tailors	28.4	116	17.5	43	32.4	45	16.3	14	26.1	132	13.2	27	27.3	40	8.1	11	22.6	428
Blacksmiths	39.8	122	15.5	41	75.7	95	4.7	1	20.9	65	28.9	25	34.1	40	30.6	28	28.1	407
TOTAL		1,968		856		629		180		966		373		187		257		5,416

Source: Mehretu (1981).

TABLE II-16:
DISTRIBUTION OF SMALL MANUFACTURING ENTERPRISES, EASTERN REGION, BY VILLAGE SIZE, 1979

VILLAGE POPULATION	CHARCOAL % OF VILLAGES	POTTERS % OF VILLAGES	WEAVERS % OF VILLAGES	OYEING % OF VILLAGES	FURNITURE % OF VILLAGES	TAILORS % OF VILLAGES	BLACKSMITHS % OF VILLAGES
399 - below	1.1	21.3	41.8	14.7	11.6	13.3	17.7
400 - 799	1.5	34.4	54.2	16.8	20.6	25.2	35.1
800 - 1,199	6.0	42.0	60.0	28.0	20.0	28.0	46.0
1,200 - 1,599	3.8	50.0	73.1	50.0	26.9	53.8	46.2
1,600 - 1,999	0.0	70.0	75.0	50.0	20.0	40.0	75.0
2,000 - 2,399	0.0	46.2	69.2	46.2	46.2	53.8	53.8
2,400 - 2,799	0.0	33.3	50.0	16.7	33.3	33.3	50.0
2,800 - 3,199	0.0	50.0	75.0	62.5	50.0	62.5	75.0
3,200 - 3,599	-	-	-	-	-	-	-
3,600 - 3,999	0.0	20.0	100.0	20.0	40.0	60.0	60.0
4,000 - above	12.5	12.5	37.5	37.5	75.0	87.5	81.5
TOTAL %	1.8	29.5	49.7	20.4	17.5	22.5	29.6

Source: Mehretu (1981).

TABLE II-17:
DISTRIBUTION OF SKILLED SERVICE ENTERPRISES, EASTERN REGION, BY SECTOR, 1979

ENTERPRISE TYPE	BOGANDE		DIABO		DIAPAGA		COMIN-YANGA		FADA		KANTCHARI		MATIACOALI		PAMA		TOTAL ORD % OF VILLAGE	TOTAL ORD #
	% of Villages	#	% of Villages	#	% of Villages	#												
Midwives	23.3	189	43.7	121	16.2	36	25.6	33	26.1	122	2.6	20	6.8	22	16.1	24	23.9	567
Fortune Tellers	47.2	396	29.1	75	81.1	247	41.9	111	52.2	224	28.9	84	22.7	46	59.7	137	40.7	1,320
Traditional Healer	22.7	137	31.1	123	43.2	100	18.6	25	23.9	88	7.9	9	15.9	15	21.0	27	22.1	524
Barbers	2.2	6	2.9	4	10.8	12	2.3	1	2.2	8	5.3	6	6.8	7	3.2	2	3.5	46
Masons	6.8	20	5.8	7	16.2	13	2.3	2	6.7	13	7.9	3	0.0	0	3.2	8	6.1	66
Carpenters	5.7	10	4.9	5	8.1	4	2.3	1	4.5	12	2.6	1	0.0	0	1.6	2	4.2	35
Motor Bike Repair	13.1	36	6.8	8	13.5	8	0.0	0	6.7	24	10.5	6	6.8	5	3.2	2	8.3	89
Car Repair	0.0	0	0.0	0	0.0	0	0.0	0	1.5	5	2.6	1	2.3	2	1.6	1	0.8	9
TOTAL		794		343		420		173		496		130		97		203		2,656

Source: Mehretu (1981).

TABLE II-18:
DISTRIBUTION OF SKILLED SERVICE ENTERPRISES, EASTERN REGION, BY VILLAGE SIZE, 1979

% OF VILLAGES							
VILLAGE POPULATION	MIDWIFE	FORTUNE TELLER	TRADITIONAL HEALER	BARBER	MASON	CARPENTER	MECHANIC
399 - below	25.2	37.1	20.5	1.4	2.8	1.9	3.0
400 - 799	20.6	51.9	22.1	3.1	4.6	3.1	8.4
800 - 1,199	20.0	56.0	22.0	2.0	6.0	6.0	14.0
1,200 - 1,599	30.8	69.2	46.2	11.5	11.5	15.4	11.5
1,600 - 1,999	35.0	50.0	30.0	10.0	15.0	10.0	35.0
2,000 - 2,399	38.5	76.9	53.8	7.7	38.5	30.8	23.1
2,400 - 2,799	33.3	16.7	16.7	16.7	16.7	0.0	16.7
2,800 - 3,199	12.5	62.5	50.0	25.0	37.5	12.5	25.0
3,200 - 3,599	-	-	-	-	-	-	-
3,600 - 3,999	0.0	100.0	40.0	0.0	0.0	20.0	20.0
4,000 - above	0.0	75.0	62.5	25.0	37.5	25.0	75.0
TOTAL %	23.9	40.7	22.1	3.5	6.1	4.2	8.3

Source: Mehretu (1981)

4. Health Services

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The population of the Eastern Region, like that of most rural areas in Africa, is subject to a wide variety of afflictions to health. The most prevalent of these are measles, malaria, whooping cough, meningitis, and diarrhea, as well as significant cases of onchocercosis and cholera; all of which take their toll upon the inhabitants (see Table II-19). Among the Gourmantche, responsibility for health matters such as these is very diffused. Responsibility for treating sick individuals with traditional methods is held by the most senior members of communities (numbering over 500 today, see Table II-17), with Chiefs or older men treating adults within their family groups. Some 570 older women treat other females and children, and also act as midwives (see Table II-17). Special skills or experience with specific types of illness are widely recognized in this traditional practice.

More "modern" or "orthodox" health care and sanitation services available to combat illness is much less diffuse. According to the Ministry of Public Health, in 1979 there were 28 dispensaries and 26 maternity clinics in the region. Except for the cantons of Bilanga-Yanga and Madjoari, every canton had at least one or the other of these facilities; with some, such as Gobnangou, having up to four. The one hospital of the region is located at Fada N'Gourma (see Table II-20 and Map 12). In general, the facilities are located in the larger villages. Almost none are located in places with less than 1000 people (see Table II-21). It is to be noted, however, that according to an MSU survey in 1980, ambulance service and vaccination teams, to the extent that they do, reach even the smallest of settlements. The former service tends to be concentrated in the sectors of Diapaga (where an ambulance is stationed) and Matiacoali. The latter service tends to concentrate in the sectors of Bogande and Diapaga (see Table II-22).

As in the case of educational facilities, statistics on the availability of health services are unstable. In Diapangou, one of the maternities operates in a building originally intended for a dispensary, which has never functioned. At Gayeri, the dispensary does not function because the nurse disappeared.

Of those that do exist and are indeed staffed, a fair proportion are reasonably new; i.e., post-independence, solidly-built, four or five-roomed structures, generally perfectly suitable to serve the purposes for which they were intended. Some of these newer facilities, however, lack accommodation for contagious cases, and for seriously ill patients whom the nurses wish to keep under observation. Where such accommodation is available, it is usually in very shabby and inferior outhouses. Other dispensaries are extremely dirty and decrepit, quite unsuitable for their purposes, and often irreparable. At Kantchari, the dispensary is housed in a corner of an abandoned school building, and can hardly be said to exist at all. So while a fair proportion of the rural dispensaries can be described as basically good, though capable of improvement, a fair proportion also has to be rebuilt, and in certain cantons dispensaries have still to be established.

With very few exceptions, all these units suffer from lack of building maintenance. As in the primary schools, the roofs leak, the ceilings have fallen or are falling, and windows and doors are defective. Nearly all are shabby and need new (and regular) coats of white-wash or color-wash, which would at least give them a more sanitary appearance. The exceptions are always places that have benefited from the attentions of private, charitable organizations. Thus, the Matiacoli and Namonou dispensaries have been put in good order by members of the Frères des Hommes.

Sometimes there is a contradictory apparition of old and new facilities in the same locality. The medical center at Diapaga, no different than other village dispensaries except for its additional function of distributing supplies to surrounding facilities, is located in very old and delapidated premises dating, it is said, from 1930. At the same time, and quite close by, there is an excellent new complex of buildings financed by the Association of Evangelical Churches and constructed by the Frères des Hommes. This, staffed and equipped, would make a perfectly adequate district hospital. It was completed in June 1979. Regrettably, six months later it still stood empty and unused since furniture and equipment had not yet been provided. Moreover, the present facilities at Diapaga compare very badly with the

spacious and well-built dispensary and maternity clinic at Namonou, only 25 kilometers away, constructed as the medical center for Bizougou and Gobnangou cantons but no longer serving as such. Ten years ago Namonou had a doctor. Diabo is another unusually large, well-built, and potentially very useful facility inherited from the Redemptorist Mission, but now operated entirely by the Ministry of Health.

Most of the maternity clinics are less well-built than the dispensaries. The Namonou clinic is spacious and soundly constructed, but neglected and in need of repair and re-equipment. But the majority of the maternity clinics have been built by voluntary, communal effort; and while no one would want to decry such an admirable thing, without supervision and assistance, it usually results in inferior and inadequate structures. The typical village maternity clinic is built of swish brick with a cement plaster, applied thinly, and falling away. It will have a permanent roof, not a thatch one, but defective all the same; one that leaks. It will probably have no ceilings.

The village maternity clinic may have only two rooms or it may have five or six, with room for the accommodation of mothers and babies, though usually without any cooking or sanitary facilities. Sometimes, as at Gayeri, the maternity clinic is one room in the dispensary, not an ideal combination.

The normal staff of a village dispensary is the nurse, a professionally-qualified man who acts, perforce, in many of the capacities reserved to doctors in the developed countries; a skilled laborer; and an "agent itinerant de santé." The laborer is usually a local man of modest educational attainments who has learned how to dress cuts and wounds, perhaps to give injections, and to sterilize the dispensary's instruments. He is not a common laborer. He is an extremely valuable member of the team, and probably the one who knows most about the people the dispensary is serving. The agent itinerant de santé is a man who has had a little formal training. He has only one duty, to visit lepers regularly in their home villages and to keep them supplied with drugs. When he is not out on his rounds, he assists in a general way in the work of the dispensary. Sometimes this means keeping

the dispensary open and running during periods when there is no nurse. On the figures these useful public servants provided, the incidence of leprosy is declining quite rapidly, and with additional training they could serve wider and more general public health purposes. The importance of the agents itinerants is that they constitute a mobile service, not a stationary one, reaching out from central villages into quite a large number of smaller places.

The maternity clinics are sometimes staffed by highly-qualified midwives, assisted by a number of less qualified, but skilled and responsible matrons. Many of these latter have received their training in regional hospitals such as the one at Fada N'Gourma. Most clinics are staffed only by one or two matrons, occasionally assisted by one or two voluntary workers from the village. Matrons and their helpers were usually very admirable and competent women. At Namonou they were positively remarkable.

Dispensaries and maternity clinics alike suffer from lack of equipment, furniture, and supplies. The average dispensary has one or two small tables and chairs, a cupboard, and not much else. There may or may not be an examination table. In the maternity centers, if there is a delivery table, it is almost certain to be a very old, rusty and shaky one; but quite often of concrete. In both dispensaries and maternity clinics, if there are beds, there are unlikely to be mattresses. At best, the bedsprings will be covered with sheets of plywood; and where these are lacking, the patients will spread their own sleeping mats on the springs, or may prefer, more comfortably, to lie on the floor. In the village dispensaries, the pressure burners for the sterilizers are almost always out of order; and in no public health facility is there a working refrigerator for the storage of perishable drugs. Nurses in dispensaries commonly complained that their hypodermic syringes were so old that they could no longer be used safely for intravenous injections. Matrons in the maternity clinics have less difficult requests; they would be pleased with a new pair of scissors and with some tweezers.

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 Drugs are the most serious deficiency in the dispensaries. Most nurses estimate the monthly supplies they receive as the equivalent of a week's or ten days' needs. When the supplies run out, all they have to offer their patients is advice and prescriptions. The nearest pharmacy at which a prescription can be filled may be anything from 30 to 60 kilometers away, and prices already high are augmented by the costs of the journey. Some dispensaries benefit by the assistance of nearby Missions, themselves dependent on charitable gifts from overseas; but the assistance and the charity often take the form of samples of new products, donated by drug manufacturers. Drugs which have already established a reliable and profitable market, that is to say Nivaquin, Aspirin, and the antibiotics, the most common requirements of the rural dispensaries, rarely figure among the donations. In the maternity clinics, matrons complain of the persistent shortage of such elementary supplies as cotton wool, compresses, and medicinal alcohol.

In spite of these difficulties, the dispensaries serve large areas and populations, commonly an entire canton or parts of several cantons, with patients coming from as far as 35 kilometers for treatment. Most of them are busy places: a nurse may examine and treat (or more often prescribe for) anything from 50 to 100 new cases a day, and even more old ones returning for additional treatment. Business tends to be brisker on market days than on ordinary ones. It is brisker also in the dry season when the people of large villages are likely to be at home. In the rains, when they are dispersed in their bush farms, it tends to fall off. The average village maternity clinic, staffed by one or at most two matrons and very poorly equipped and supplied, will handle from ten to twelve deliveries a month. There are several which handle thirty or more.

So, however depressing the physical facilities, somehow a lot of work gets done; and there are sometimes highly encouraging circumstances. At Matia-coali, and quite possibly in other places as well, the dispensary has an auxiliary service in certain places provided by volunteer "Secouristes Villageois." Essentially first-aid men instructed by the dispensary nurse, they bring in the sick on their molyettes and carry drugs back to their villages for the treatment of patients in their homes. In Namonou, because

of the dispersal of the population during the farming season, an effort is being made to instruct and enlist the support of traditional midwives in order to assure pregnant women in remote places of adequate care. Many nurses and matrons respond conscientiously to requests to visit the seriously sick in their villages, though they habitually perform these journeys at their own cost. There were remarkably few who did not appear to be enthusiastic about their work. Within their abilities and with limited means, the nurses and the matrons do extremely well. 104.

Goodwill does not, however, compensate for all the limitations. Every village nurse encounters a certain number of cases every month which have to be referred to the regional hospital at Fada N'Gourma. Ambulance services are maintained at Fada N'Gourma and Diapaga. The ambulances are not immediately recognizable as such. Most of them are uncovered pick-up trucks, in which the patient reclines in the back for what is often a long journey over very painful roads. There is an inevitable delay before an ambulance can reach a village dispensary, and in places where there is no telephone--the majority of places--it is likely to be a long one. The service is not free. Patients are expected to contribute at least the cost of the gasoline. From Botou this involves a charge of FCFA 18,600, a sum which is difficult for many families to raise.

There are, of course, many places in the eastern region which the ambulance cannot reach in the rains. From Bogande, Pama and Diapaga, evacuations are possible by air, but they are very expensive. From places like Bilanga, they are not possible at all. From Botou, no matter what the cost, they would be extremely difficult in August and September. Sometimes the vehicles are out of order, and nearly always there are more demands upon them than the most energetic drivers can satisfy with reasonable expedition.

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TABLE II-19:
MORTALITY RATES BY AGE GROUP & BY CAUSE, EASTERN REGION
 (per 1,000 inhabitants)

CAUSE	0-1	1-4	5-14	15-44	45-64	64+
Rougeole	26.1	26.1	4.6	0.4	0.1	-
Paludisme	40.5	4.9	0.5	0.6	1.8	6.0
Diarrhee	19.2	13.4	2.1	2.3	7.4	17.8
Meningite	4.5	1.8	1.1	1.1	1.1	2.5
Coqueluche	11.9	1.8	0.3	0.1	0.2	0.7

Source: Mehretu and Wilcock (1979).

TABLE II-21:
DISTRIBUTION OF HEALTH & EDUCATION FACILITIES, EASTERN REGION, BY VILLAGE SIZE, 1979 ^{1/}

Village Populations	Number of Villages	Primary Schools	Dispensaries	Maternity Clinics	(CFJA) Young Farmers Training Centers
Less than 100	77	-	-	-	-
100 - 249	162	-	-	-	-
250 - 499	175	-	-	1	-
500 - 999	110	1	-	-	3
1,000 - 1,999	71	7	6	6	2
2,000 - 2,999	24	9	7	6	1
3,000 - 3,999	11	8	6	6	1
4,000 - 4,999	3	2	2	2	1
Over 5,000	5	5	4	3	-
TOTAL	638	32	25	24	8

Source: Haute-Volta (1980).

NOTES: ^{1/} Fada N'Gourma excluded.

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DISTRIBUTION OF HEALTH & EDUCATION FACILITIES, EASTERN REGION, BY VILLAGE SIZE, 1979 ^{1/}

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500 - 999	110	1	-	-	3
1,000 - 1,999	71	7	6	6	2
2,000 - 2,999	24	9	7	6	1
3,000 - 3,999	11	8	6	6	1
4,000 - 4,999	3	2	2	2	1
Over 5,000	5	5	4	3	-
TOTAL	638	32	25	24	8

Source: Haute-Volta (1980).

NOTES: ^{1/} Fada N'Gourma excluded.

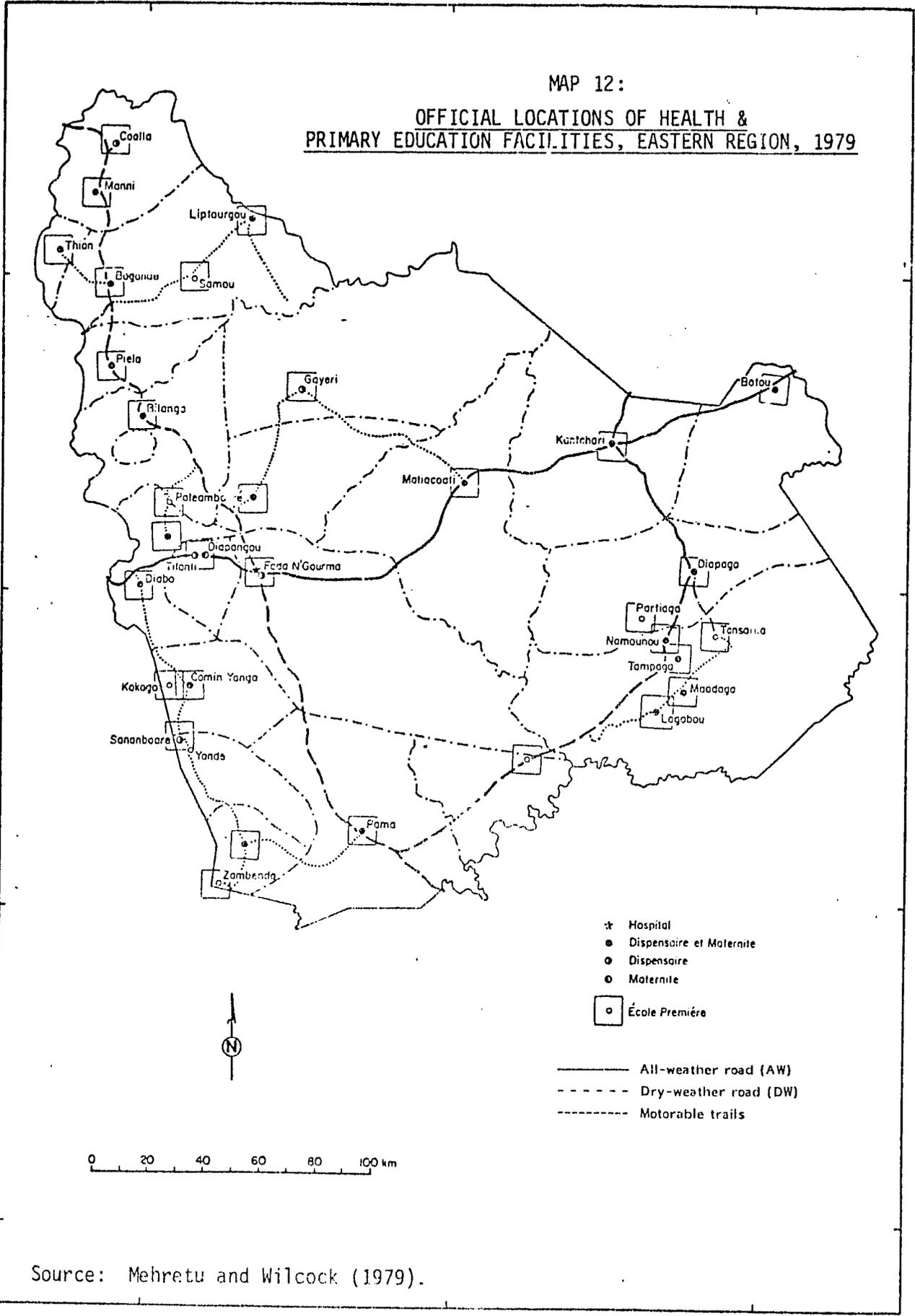
TABLE II-22:
DISTRIBUTION OF HEALTH SERVICES, EASTERN REGION, BY SECTOR, 1979

	BOGANDE		DIABG		DIAPAGA		COMIN-YANGA		FADA		KANTCHARI		MATIACOALI		PAMA		TOTAL ORD % OF VILLAGES	TOTAL ORD #
	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#		
Dispensary	3.4	6	2.0	2	16.2	6	4.7	2	2.2	3	5.4	2	4.5	2	3.2	2	3.8	25
Maternity Clinic	4.5	8	2.0	2	13.5	5	2.3	1	6.0	8	7.9	3	2.3	1	3.2	2	4.8	30 ^{1/}
Visited by Ambulance	19.1	33	10.0	10	41.7	15	20.9	9	29.8	39	21.1	8	36.4	16	16.1	10	21.8	140
Visited by Vaccination Teams	74.4	131	35.9	37	78.4	29	53.5	23	50.0	67	50.0	19	52.3	23	53.2	33	57.0	362

Source: Mehretu (1981).

NOTES: ^{1/} The number of maternities is greater than indicated on Table II-21. Reasons for differences in the two sources is not fully understood.

MAP 12:
OFFICIAL LOCATIONS OF HEALTH &
PRIMARY EDUCATION FACILITIES, EASTERN REGION, 1979



Source: Mehretu and Wilcock (1979).

5. Water Supply

Almost all villages draw water from deep or shallow (i.e., bore hole) wells, and according to a recent survey conducted in 1980 by MSU, there are some 3,400 such water sources in the region (Table II-23). However, according to the same survey only about 60% of the villages have year-round supply, some 32% of all village wells reportedly running dry in April and May. The phenomenon appears most severe in the sectors of Diabo, Comin-Yanga and Pama. Water supply problems are, clearly, unstable situations and much depends on the rainfall characteristics of any given period. Moreover, "dry" is, within a range, a matter of opinion and so surveys on this subject tend to vary significantly in their results. The UFRD project, for example, found that only 16% of villages in the region were assured of year-round supplies, and noted quite explicitly that this appeared to be a gross underestimate. Either way though, a great many places do suffer from acute water shortages during certain periods of the year.

TABLE II-23:
DISTRIBUTION OF SOURCES OF WATER SUPPLY & SEASONAL AVAILABILITY, EASTERN REGION, BY SECTOR, 1979

		BOGANDE		DIABO		DIAPAGA		COMIN-YANGA		FADA		KANTCHAR		MATIACOALI		PAMA		TOTAL % OF VILLAGES	TOTAL #
		% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#	% of Villages	#				
SOURCE OF WATER	Wells	91.5	1,407	71.8	442	100.0	370	32.6	39	94.0	581	97.4	248	100.0	228	50.0	109	81.6	3,424
	Bore Holes	27.0	-	28.2	-	27.0	-	86.0	-	33.6	-	34.2	-	22.7	-	75.8	-	37.7	-
	Rain Water	17.0	-	9.7	-	21.6	-	0.0	-	3.0	-	10.5	-	0.0	-	1.6	-	8.9	-
	Dams	11.9	-	6.8	-	0.0	-	0.0	-	6.0	-	2.5	-	0.0	-	0.4	-	5.8	-
SEASONAL CONDITION OF WELLS	Water, All Year Round	71.0	499	50.5	148	94.6	110	23.3	16	69.4	256	86.8	163	77.3	106	33.9	39	60.1	1,337
	All Wells Dry, April & May	31.4	-	44.8	-	10.8	-	42.9	-	33.8	-	5.3	-	22.7	-	50.0	-	31.6	-

Source: Mehretu (1981).

6. Education Services

The eastern region reportedly has between 32 and 38 primary schools, in 33 locations (Table II-24).¹ Except for Bilanga-Yanga and Yonde, each canton has at least one facility. These cluster in the western extremities of the region and in the Diapaga area (Map 12). The total enrollment of about 6,900 students (1979) represents about 7.8% of the school-age population; and this is over 6 percentage points lower than the national average. Moreover, almost 30% of the enrollment is contained in the canton of Fada N'Gourma, with most of that contained within the village itself. Almost all the schools which do exist are located in villages with more than 1,000 people (Table II-21).

Every village of any size (1,000 inhabitants or more) in the region would desperately like to have a primary school, or, if it already has one, would like a bigger one. No amount of supposedly sound economic advice is likely to shift this expressed priority. Places in the primary schools are eagerly sought, and every year almost as many children are turned away, for lack of space, as are admitted. Even so, practically all the schools are overcrowded. Classes of 70 or 80 are not uncommon.

The school buildings usually date from the early 1960s, though many were constructed in the 1950s, or even earlier. Some are solidly built in concrete block, and some are in "banco ameliore," that is to say adobe brick, sun-dried and plastered. A number of these schools were inherited from Catholic Missions, when the latter's educational activities were taken over by the state in 1969. It is safe to say that no school building has received any maintenance since the day it was built or taken over.

¹/ The estimate varies with the source. MSU reports indicate 36 and 38. The UFRD project counted 32. There is, in any case, some instability in whatever figures are used. The Ministry of Education reports, for example, the existence of a school in 1979 in Gayeri, with an enrollment of about 60 (Map 12, Table II-24). In fact, there is a facility, but the headmaster had long since disappeared when the UFRD project team visited the village in 1979. There was really no "school" to speak of. Similarly, a small school built by the community of Madjoari in 1973 fell down during the rains of 1979.

As a result, almost without exception, the zinc or iron sheet roofs leak. The ceilings, normally made of a cardboard material, have perished. Wooden doors and windows are all in need of repair or replacement, only metal ones stand up to attack by termites and the weather. In default of a single fresh coat of white-wash or color-wash in all these years, all the school buildings are now extremely shabby. In many schools, but by no means in all, the concrete floors, laid by indifferent or unscrupulous contractors, consist of a thin skin of cement over the dirt, and have broken up.

In about half the cases the primary schools catering to six years of elementary education have only three classrooms, and are able, consequently, to recruit a new intake only every second year. This is a sensible expedient, but it implies that one out of two generations of village school-age children misses its chance. In a few cases three-classroom schools have been expanded by the construction of strawmat sheds to accommodate additional classes. These serve fairly well in the dry season but are uninhabitable during the rains. In some places Parents' Associations exert themselves to put up better additional buildings, often of swish brick.

Furniture and equipment in the schools are always inadequate. Some of the blackboards, indeed almost the only instruments of instruction, are so worn and pitted that inscriptions on them are barely legible. The pupils' desks are old, falling apart, and mostly irreparable; and there are rarely enough of them. Desks built to seat two children often have to accommodate four, and sometimes as many as nine on a bench intended for three. Sometimes the teachers themselves have no desks to work at and no chairs to sit upon, and teach on their feet all day.

Scholastic supplies are equally inadequate. A school with an enrollment of 300 may expect to receive annually a dozen boxes of blackboard chalk, anything from 20 to 50 exercise books, possibly half a dozen text books, and a score or two of ballpoint pens. In 1979-1980, some schools in the rural areas were told to expect nothing. In effect, school supplies are being provided by parents, each purchasing for his own child. Few can afford textbooks, which are extremely expensive.

This, however, is the encouraging feature of education in the villages. Every school has an active Parents' Association. Members pay regular annual subscriptions, rarely less than Fr. CFA 300, and in some places, as much as Fr. 1500. The subscriptions enable the schools to pay for the transportation from Ouagadougou of the supplies donated by Catholic Relief for the midday meal, to pay the wages of the cooks, and occasionally to buy a little new school furniture. Parents' Associations are active, too, in putting up new classroom buildings, volunteering not only their labor, but also cash, for the purchase of cement, roofing sheets, and scantlings.

Local initiative can sometimes be nothing short of remarkable. The school principal at Bilanga did not complain (the only one that did not) about any shortage of supplies. Adopting some of the principles of the Young Farmers' Training Centers (CFJA--discussed below), he started a large school farm several years back. It flourished and the income from sale of produce pays for everything. In addition, the boys at the school themselves undertake any necessary construction, and learn something of the artisanal trades while doing so.

The material results of these efforts are however less than they ought to be. A normal intake in a village primary school is about 70 boys and girls. Of these, probably 50 will survive to the CM2 class, representing the completion of a full six years of elementary education, and the acquisition of skills in reading and writing French and in arithmetic, and some knowledge of other subjects as well. Possibly half of the 50 will do well enough to be awarded their Elementary Education Certificates and to be allowed to sit in the competitive examinations for entry into the country's secondary schools. Only one or two from each school, on the average, are likely to succeed and to continue their education to the point at which they have a fair chance of a career. Places in the technical and trade schools are even harder to come by than in the secondary schools. As a result, the very great majority of primary school leavers have only two choices--to return to their families' farms or to emigrate as unskilled laborers to the Ivory Coast. In either event, it is likely that most of them swiftly relapse into illiteracy.

115 The primary schools are all day-schools, of course, and consequently do not attract pupils from great distances. As a general rule, about three-quarters of the students come from the very village in which the school is located. Most of the rest walk to the school every day from villages which are up to five or six kilometers away, and a few may walk from places as far as ten kilometers away. Occasionally, there are children from more distant places who find lodging with relations and friends in the central village. But, generally, ten kilometers is about as far as these village schools can reach, and many more would have to be built before a high proportion of the rural population could be said to be served.¹

Besides the primary schools, basic education of a sort is theoretically provided by Young Farmer Training Centers-CFJA (or Ecoles Rurales as they used to be called). Although they can as easily be dealt with as parts of the ORD extension system, they are here regarded as elements of the educational system. There are, in principle, eight of these actually operating in the region (Table II-21).

The CFJA offers a simple curriculum on farm work, incorporating a few improved practices, such as planting in rows, classroom instruction in arithmetic, a vernacular language, and French. The course, three years, is intended for boys and girls (in separate centers) aged 12 to 14. The pupils attend for four days a week. The facilities of the CFJA are newer and in much better order than those of primary schools; and with the important exception of ploughs and ox-teams, are usually better equipped to serve their purposes. Nevertheless, they serve primarily the villages in which they are located, only a few of the pupils coming from surrounding villages, and then not likely to be more than five kilometers away. In the eastern region these institutions appear to be very unpopular. Many are closed and few are well-patronized. In the direction of improvement, there is some speculation that there may be a merging of the curricula of the CFJA with those of the primary schools; with an increasing emphasis on agriculture in the former, and more attention to academic subjects in the latter.

^{1/} There are some exceptions to this generalization. In the canton of Bingo in the center-west region, for example, the school is deliberately made to serve the entire area of the canton by the allocation of places to nine of Bingo's ten villages in proportion to population. The tenth village has a small school of its own.

In the eastern region, there are no secondary schools and no trade training schools outside Fada N'Gourma. The trades training center at Fada is an excellent institution, financed by the Government, equipped by foreign aid, and benefiting from management supplied by the Redemptorist Mission. It turns out fair numbers of well-qualified carpenters and cabinetmakers, masons, mechanics and electricians, more than half of them natives of the region, men who would be invaluable in rural development programs. The majority of them now leave the region after graduating, simply because there are good job opportunities elsewhere, and practically none, at the present time, in the region.

TABLE II-24:
OFFICIAL LOCATIONS & ENROLLMENTS OF PRIMARY SCHOOLS, EASTERN REGION, 1979

CANTON	1979 Number of Schools	ENROLLMENT		SCHOOL AGE POPULATION		% of school age Attending	Number of School Locations
		Number	%	Number	%		
Bogande	3	578	8.3	7,298	8.3	7.9	3
Coalla	3	331	4.8	11,903	13.5	2.8	3
Thion	1	118	1.7	2,045	2.3	5.8	1
Piela	1	168	2.4	4,950	5.6	3.4	1
Bilanga	1	174	2.5	5,656	6.4	3.1	1
Bilanga-Yanga	-	-	-	598	0.7	0.0	0
Diapangou	1	176	2.5	1,677	1.9	10.5	1
Fada N'Gourma	6	2,028	29.3	5,449	6.2	37.2	1
Yamba	1	37	0.5	2,024	2.3	1.8	1
Diabo	1	512	7.4	5,452	6.2	9.4	1
Tibga	2	344	5.0	3,022	3.4	11.4	2
Gayeri	1	56	0.8	3,329	3.8	1.7	1
Matiacoali	1	134	1.9	3,035	3.4	4.4	1
Comin-Yanga	2	240	3.5	3,292	3.7	7.3	2
Yende	-	-	-	2,065	2.3	0.0	1
Madjoari	1	40	0.6	705	0.8	5.7	1
Pama	1	201	2.9	2,446	2.8	8.2	1
Soudougou	2	254	3.7	3,253	3.7	7.8	2
Botou	1	110	1.6	2,857	2.9	3.9	1
Kantchari	1	208	3.0	2,781	3.1	7.5	1
Bizougou	2	375	5.4	4,846	5.5	7.7	2
Gobnangou	6	840	12.1	9,753	11.0	8.6	5
TOTAL	38	6,924	100.-	88,436	100.-	7.8	33

Source: Mehretu and Wilcock (1979).

7. Administrative Services

Administratively, the region is a single department or prefecture with its headquarters at Fada N'Gourma. It is subdivided into five subprefectures or administrative districts presided over by subprefects. These are Bogande, Diapaga, Fada N'Gourma, Kantchari and Pama. There are sometimes further subdivisions of these called Arrondissements and directed by more junior administrative officers called Chefs d'Arrondissement. Coalla in the subprefecture of Bogande and Diabo in the subprefecture of Fada are two of the principal subdivisions. The numbers of these administrative divisions and subdivisions are subject to change quite rapidly. It is not certain, for example, whether Comin-Yanga is a subprefecture or an arrondissement. Before the change in government in December 1980 it was considered the former. Apparently now it is considered of the latter type. Nevertheless, the system in general is that of a colonial pattern of administration superimposed upon the vestiges of the administrative structure of the traditional pre-colonial Kingdom of Gourma, and the latter includes the chiefs of 22 cantons and a much larger number of village chiefs.

A feature of the newer administrative establishments, whether subprefectures or arrondissements, is the short tenure and impermanence of the officers who occupy them. There appears to be a general post almost every six months. This, it is said, is deliberate government policy and there may be very good reasons for it. It does have some unfortunate results. Few of the administrative officers, and it should be said immediately that there are some notable exceptions, have any real familiarity with the areas and people they administer. Most have no reliable means of transportation and, therefore, lack the means to become familiar. The result is unfortunate because the functions that administrative officers are called upon to perform are important to the rural villages and their inhabitants, and call for a great deal of local knowledge.

The subprefect or chef d'arrondissement, for instance, is responsible for l'Etat Civil, that is to say the updating of the census, marriage and birth certificates, and the issue of identity cards. He administers justice since he is also a magistrate with limited jurisdiction. He collects, or supervises

the collection of the annual poll taxes. He is responsible for the upkeep of government buildings and does it, to the extent he can, within very severe budgetary limitations. He is also responsible, more or less, since nobody else is, for the upkeep of rural roads, for which there are no budgets at all. Indirectly he is responsible for the good conduct of all government activities within his district, for the maintenance of law and order and for the promotion of the general wellbeing of the people he administers.

The establishment of a new subprefecture or arrondissement is eagerly sought by rural people and, when it happens, it is a cause for rejoicing in the village or canton concerned. It represents both prestige and administrative convenience. It also represents the promise of other or improved services.¹ Cantons like Coalla cheerfully construct, at their own cost, the office and residence required to make the administrative establishment possible.

The administrative facilities of the subprefectures and arrondissements are usually older, better established and equipped than the technical services. Some subprefects might not agree with this opinion. Like other civil servants all can report defects--leaking roofs, rotted doors and windows, obsolete furniture and equipment, broken-down transportation and radio transmitters, or the complete lack of some of these facilities--but still, by comparative standards their physical amenities, offices and residences are reasonably good. This may not, however, be true of the newly established but not yet staffed facility at Coalla being built with local support.

1/ Some of the services are very tangible indeed. If a subprefect or chef d'arrondissement is provided with a motor vehicle, it represents the presence of an "ambulance" in case of need. Similarly, the establishment of an administrative unit also brings with it a radio-telephone service (RAC), as at Fada, Diagaga, Kantchari, Bogande, Comin-Yanga and, before it broke down, Pama. This is also a service of importance during emergencies, and tends to be more reliable than regular telephone services which currently are located at the same places, as well as Mahadaga.

Some of the subprefects have on their payrolls one or two artisans, usually a carpenter and a mason, often the only skilled workmen in the area whose function it is to keep the public buildings of the subprefecture in good repair. In the best of circumstances this task would be impossible for two men. In fact, the men do not even do what they might. They are idle for the greater part of their time because subprefects have no budgetary allocation to buy them the wood and cement they need to work with. Where there are such men at work--on the construction of a classroom at a school, for example--they are usually working with materials supplied by private organizations, like Parents' Associations. 170

Nevertheless, the administrative services supplied by subprefects and arrondissement heads are valued by the rural population. The essential ingredient for efficiency is mobility, for these are the kinds of services which lend themselves to delivery, at least to the larger villages, including canton headquarters. The canton is the base of the country's administrative structure. There are, no doubt, many subprefects who travel conscientiously in their districts. There are others, not necessarily from any fault of their own, who do not. The subprefect at Pama said that not once in the eight months after his posting to that place had he been able to get outside it.

There are two main obstacles to the delivery of administrative services to the rural people. First, the availability of transportation (that was the difficulty at Pama) and the state of the roads. Secondly, the complete disappearance from the villages of the old travellers' rest-houses, simple structures where an administrative officer--or any other officer of the government--could put up for the night and conduct his business. It would not be difficult nor costly to rebuild these places, nor would it be difficult and costly to construct modest canton offices from which the administrative officers, canton chiefs and canton secretaries could carry on the business of the canton.

A canton office could serve, among other purposes, as a postal agency where letters could be collected and mailed. At the present time, in addition to Fada N'Gourma, there is a full post office only at Kantchari. The office is

Kantchari is an excellent new building with insufficient business. It has 150 postal boxes and only 15 are rented.

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How does a farmer in a small village outside these centers get a letter from his son or brother who has gone off to work in the Ivory Coast? In the first place, the letter will be delivered to the nearest subprefect's office and, provided the name of the farmer's canton is clearly stated on the envelope, it will be placed in a box reserved for that particular canton. It will remain there until the canton secretary next calls in, perhaps in a week or two. How the mail then gets delivered to particular villages in the canton is uncertain. Perhaps the secretary waits until market day, seeks out people from particular villages, and entrusts the village mail to them. Perhaps he waits until people come in and ask if he has anything for them. It is vague and unreliable. With a little organization and at little cost it could easily be improved, with good prospects for enhanced government revenues. Small Services of this kind can make a big difference to rural life.

In some places other services can be found. The Service des Eaux et Forets, for example, is well represented (at least in numbers, though not in buildings, supplies and equipment) at such places as Diapaga and Pama where there is a certain amount of tourist traffic. The principal function of the Service is the protection of game in the reserves. At Kantchari, however, the Service consists of a single officer, a "prepose," with no office, no staff (not even one forest guard), no transportation and an impossible assortment of tasks. In the cantons of Kantchari and Botou, an area of 5,000 square kilometers, he is responsible for game and hunting control, the control of fishing in the reservoir of Boudieri, the protection of vegetation (that is to say, the prevention of bushfires) and the establishment of village plantations. It is the last of these that comes closest to the interests of the rural people, though not many of them may yet be aware of it. If the prepose of Kantchari, supported by a small and distant tree nursery, and with all his other preoccupations can contrive to get two or three hectares planted every year, he does well. But two or three hectares a year is a drop in the bucket of the region's needs. The state of administrative services in the

region is thus like all other public services, poor. Although the number of qualified personnel is much less than the number one might like to see, even those that do exist cannot be supported, beyond salaries, to accomplish the tasks they are supposed to, and willing to do.

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8. Markets

There are approximately 180 market places in the region (Mehretu, 1981), and are located in some 28% of its villages.¹ In general, the markets are found in larger settlements. For example, only 10% of villages with less than 400 inhabitants have markets while all settlements with more than 2,800 inhabitants have them (Table II-25). Between these two extremes, there is something of an overall tendency for the proportion of settlements having markets to increase as one moves up the village size hierarchy.

Most market exchange activities are concerned with trade of primary agricultural commodities and small-scale manufacturing and processing outputs. As indicated in Table II-26, higher order goods tend not to be available in the majority of markets. Cloth, for example, is available in slightly less than half the markets. Millet, during periods of low stock, can be found in a third of them.² Lamps and hoes are available in about 16% of the markets, and bicycles in only 4%. More markets in the sectors of Kantchari and Diapaga have these higher order goods than those in other sectors. The availability of these types of goods is not usually, however, a permanent feature. Things like lamps, tools, cloth and bicycles tend to be purchased when cash is relatively more plentiful; like after the harvest. It is probable that during these periods the goods in question will be more widely available than in others, and so the proportions of markets having them will rise and fall in the course of a year.

If one chooses to use the presence of higher order goods as an indicator of market importance, and the number of villages served by each market as the measure of the indicator, 17 markets inside and outside the region stand out as the most important (Table II-27). The markets indicated in the table are those

^{1/} The UFRD project counted 128 markets. The MSU survey, which identified 178, was more comprehensive in terms of village visits and this is the reason for the difference.

^{2/} Under ordinary circumstances millet would not be regarded as a high order commodity. During low stock periods such as the planting season, however, much of the millet available in markets tends to originate from only a few areas within the region, and from outside the region. In this sense the cereal represents a higher order commodity during certain months of the year

reported most often in the region's villages as the places where inhabitants go to purchase the higher order goods. Pouytenga, the most important such place, is located just outside the region, to the west. It is one of Upper Volta's major regional markets and serves some 260 villages of the east alone. The second market is Fada N'Gourma, with almost 200 villages reporting visits to it; and the third is Ouagadougou. After these, all other markets lie within the region, and there is a noticeable decline in the number of villages served by each as compared to the first three. In general, the balance of the markets serve sub-regional areas, with the possible exception of the markets at Namonou and Diembende, which will be discussed further on.

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Clearly, however, the service area for trade in higher order goods is not the only criterion for measuring market importance, and most especially not if the buying and selling of such goods represents a very small proportion of total trade activity; as it does in the region. Other characteristics which have some importance in this regard are indicated in Table II-28 for a sample of 27 markets in the region.¹ In the northwest area of the region the most important markets with respect to size, measured in terms of numbers of sellers during the principal market day, are Mani and Piela. Besides its greater size (840 sellers) the market of Mani also seems to draw buyers and sellers from a wider area, with 27% of its sellers coming from distances of more than 15 kilometers (many using two-wheeled motor vehicles) and 15% of its buyers coming distances over 10 kilometers. The largest trade area in terms of buyer distances is Liptougou, drawing 50% of buyers from over 10 kilometers away; but this is a reflection of the very low population and village densities around that market rather than an indicator of importance.

^{1/} The choice of markets was based in part on village questionnaires, in part on local recommendation and in part on hunches. In general the selection covered the most important markets of the region, as well as some rather unimportant ones. The ones which in retrospect should have been selected as well include Bilanga-Yanga, Diaka and Nadiabon. Surveys of the markets were carried out by SAED, under contract to the UFRD project, in January and February 1980.

In the mid-western area the larger markets are Comin-Yanga and Diabo, and are of about the same size. The latter, however, by virtue of its proximity to the Fada-Ouagadougou road, draws significant numbers of buyers from greater distances (e.g., 15% from more than 10 kilometers away); as do the smaller markets in similar situations at Diapangou and Tibga. Fada N'Gourma, which also lies in this general area, has a daily market which supplies many types of higher order goods, as indicated earlier. It has little importance, however, in terms of basic commodity trade.

Diembende, in the southwest corner of the region, is the largest market of all, containing almost 3,000 sellers on market day and drawing buyers and sellers from a wide surrounding area. Indeed, this market is less a part of the eastern region than it is of the trade system of an area containing the adjoining region and northern Togo. As indicated earlier, road access to Diembende is very difficult from the north and east and so, naturally, it pulls from the west and south.

The largest market in the middle part of the region is Botou, adjacent to the border with Niger. In similar fashion to the market of Diembende, it draws considerable numbers of sellers (30% from over 15 kilometers away) and buyers (30% from over 10 kilometers away) from a wide trade area, including from across the border. To some extent, however, the area's reach is a function of low population densities, as in the cases of Matiaccali and Kantchari.

The largest market in the southeast area is the one at Namonou. By popular reputation it is considered the most important market in the entire eastern region and reportedly attract buyers from as far away as Ouagadougou, and the major towns of Benin and Niger. About 40% of the buyers that attend it come from distances of greater than 10 kilometers. This high proportion, however, is characteristic of several other important markets in the area, such as Logobou, Mahadaga and Tansarga.

Looking over the whole of the region, there are some notable changes in the characteristics of markets from one area to another. In the western areas most markets are held every three days, while in the southeast they are held once a week.

The middle part of the region portrays a transition from one system to the other. Reasons for this have a great deal to do with custom, although the suggestion has been made that it has something to do with density and the distances between villages. Apparently the higher the density the more likely a higher frequency of three-day markets (Mehretu, 1981). This may be an important factor, and is to some extent corroborated by the evidence from the center-west's markets, discussed further on. 126

Another apparent difference between the western areas and others is the preponderance of markets where the numbers of sellers of "subsistence" crops, primarily millet and sorghum, tend to be almost negligible. It may be that marketable surpluses were not yet available in those areas at the time of the survey, or it may be that the survey takers assigned to the western areas were unsure of the interpretation of the term "subsistence."

A third significant difference is the frequency of use of mopedettes and motor-cycles by sellers in the southeast area (and presumably by many buyers as well since more often than not buyers and sellers are one and the same person). In part this may reflect the higher money incomes of residents of this area of the region, as perhaps evidenced by the larger numbers of sellers of millet and sorghum, and may also reflect the need for efficient means of transport between several relatively distant markets within the course of a week. With respect to this last item, Map 13 illustrates that the important markets of the southeast area are relatively more clustered than elsewhere in the region. Although the distances reported by travellers between these are often less than encountered in other areas, the generally larger numbers of sellers in each market and the higher proportions of these which attend several markets in a week (Table II-28) increase the probability of finding amongst them significant numbers who have invested in motorized transport. Upon completion of the USAID-financed road improvement from Namonou to Logobou, such investments may receive a further incentive.

Despite the regional importance of markets like Diembende and Namonou, and the interest of those at Piela, Mani and Botou, the markets system of the eastern region is not as particularly well-developed as, say, the system in the center-west region. There is, for example, a significant void between Fada N'Gourma

127 and Piela notwithstanding that, in between them, the area of Bilanga apparently produces considerable surplus volumes of produce which cannot now be fully marketed due to very poor road access. The roads are a constraint. In the more general case, however, the market system is a manifestation of the level of agricultural progress of the region. For better or worse, the region's populace is still somewhat remote from the cash economy and the production of surpluses to sustain it. When this changes, the market characteristics described above will also change.

Finally, there is a dimension to market places which requires some attention here, outside the narrow perspective of their role in the agricultural marketing system. In several West African countries market fees have traditionally been regarded as local government revenues to be appropriated, very suitably, to the upkeep and improvement of the markets and then to other purposes of local interest. Collections in these countries are usually very efficient. In Upper Volta daily market tolls and annual trading licenses are Prefectoral revenues. Some of the proceeds, like some of the proceeds of the poll tax, indirectly come back to villages in the shape of salaries of the matrons in the maternity clinics and of the wages paid to the auxiliary staff in the dispensaries. No part of these revenues, however, is allocated to the upkeep and improvement of the markets that produce them. Astute, matter-of-fact people in West Africa, as in any other country, do like to see a connection between what they are paying and what they are getting in return.

The market fees are almost certainly grossly under-collected. At a guess, not an ill-informed one, they could produce four or five times the revenues they now do. They now produce so little that they can be of no importance in the budgets of the prefectures. They could, under the control of rural communities, and efficiently collected, produce enough to afford valuable support not only to the maintenance of markets, but also to the other services which serve the rural population like schools, dispensaries, and maternity clinics. The assignment of market revenues to rural communities, even with efficient collection, will not by themselves go very far towards supplying the resources the communities need, but it might go a long way towards

inspiring communities to put up the money by direct or indirect taxation, any way they like, which it takes to ensure regular maintenance and efficient operation of their service facilities.

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TABLE II-25:
DISTRIBUTION OF MARKETS IN THE EASTERN REGION, BY VILLAGE SIZE & BY SECTOR, 1979

VILLAGE POPULATION	BOGARDE		DIABO		DIAPAGA		COMIN-YANGA		FADA		KANTCHARI		MATIACOALI		PAMA		TOTAL NUMBER	TOTAL %
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
399 - below	16	17.6	6	7.8	1	14.3	1	4.8	2	2.2	2	11.1	2	9.5	4	11.4	35	9.7
400 - 799	15	34.1	4	33.3	1	20.0	2	22.2	12	46.2	4	44.4	4	40.0	2	12.5	46	35.1
800 - 1,199	7	59.3	5	83.3	2	28.6	4	100.0	4	80.0	3	60.0	6	85.0	4	80.0	32	64.0
1,200 - 1,599	3	50.0	2	66.7	1	100.0	1	25.0	3	100.0	1	25.0	1	100.0	3	75.0	14	53.8
1,600 - 1,999	5	55.6	1	100.0	1	50.0	-	-	3	75.0	1	100.0	0	0.0	-	-	11	55.0
2,000 - 2,399	5	100.0	2	100.0	1	50.0	-	-	-	-	-	-	-	-	1	50.0	10	76.9
2,400 - 2,799	0	0.0	-	-	2	100.0	-	-	2	100.0	-	-	1	100.0	-	-	5	83.3
2,800 - 3,199	-	-	1	100.0	3	100.0	1	100.0	1	100.0	1	100.0	1	100.0	-	-	8	100.0
3,200 - 3,599	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,600 - 3,999	2	100.0	-	-	2	100.0	1	100.0	-	-	-	-	-	-	-	-	5	100.0
4,000 - above	3	100.0	-	-	4	100.0	-	-	1	100.0	-	-	-	-	-	-	8	100.0
TOTAL	56	32.4	21	20.6	19	51.4	10	25.6	28	21.1	12	31.6	15	34.1	14	22.6	178	28.3

Source: Mehretu (1981)

% = Percent of villages in size class that have a market.

Number = Number of markets.

TABLE II-26:
DISTRIBUTION OF MARKETS WITH SELECTED HIGHER-ORDER GOODS, EASTERN REGION, BY SECTOR, 1979

SECTORS	DIGGING TOOL			KEROSENE LAMP			CLOTHING			NEW BICYCLE			MILLET IN TIME OF LOW STOCK		
	# of M	% of V	% of M	# of M	% of V	% of M	# of M	% of V	% of M	# of M	% of V	% of M	# of M	% of V	% of M
Bogande	4	2.3	7.1	5	2.9	8.9	26	14.9	46.4	0	0.0	0.0	16	9.4	28.6
Diabo	1	1.0	4.8	1	1.0	4.8	14	13.7	66.7	1	1.0	4.8	3	3.0	14.3
Diapaga	4	10.8	21.1	5	13.5	26.3	12	32.4	63.2	1	2.7	5.3	11	30.6	57.9
Comin-Yanga	2	4.7	20.0	1	2.3	10.0	4	9.3	40.0	0	0.0	0.0	2	4.8	20.0
Fada N'Gountra	6	4.6	21.4	8	6.2	28.6	12	9.2	42.9	1	0.8	3.6	3	2.3	10.7
Kentchari	7	16.9	58.3	6	15.8	50.0	9	23.7	75.0	3	7.9	25.0	8	21.1	66.7
Matiachali	2	4.5	13.3	3	6.8	20.0	11	25.0	73.3	1	2.3	6.7	12	27.9	80.0
Pama	1	1.6	7.1	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	4	6.6	28.6
Total	27	4.3	15.2	29	4.5	16.3	88	14.0	49.4	7	1.1	3.9	59	9.4	33.1

#M = Number of Markets that contain product in the sector.

% of V = Villages that contain product in the sector

% of M = Total number of markets that contain product in the sector.

Source: Mehretu (1981)

TABLE II-27:
HIERARCHY OF MARKETS PROVIDING SELECTED HIGHER-ORDER GOODS
TO VILLAGES OF THE EASTERN REGION

RANK	MARKET	NUMBER OF VILLAGES SERVED	POPULATION OF MARKET CENTER
1	(Pouytenga)*	263	-
2	Fada N'Gourma	190	13,067
3	(Ouagadougou)*	118	-
4	Diabo	57	1,277
5	Piela	53	3,974
6	Bogande	47	5,351
7	Manni	43	2,212
8	Namounou	35	5,048
9	Bilanga Yanga	32	1,573
10	Diapaga	23	5,617
11	Diembende	23	1,472
12	Kantchari	22	2,883
13	Tibga	19	3,004
14	Diapangou	18	1,249
15	Diaka	17	1,488
16	Botou	15	1,839
17	Matiacoali	12	2,683

Source: Mehretu (1981).

* Located outside the Eastern Region.

TABLE II-28:
SELECTED CHARACTERISTICS OF PRINCIPAL MARKETS OF

AREA	MARKET	PERIODCITY			Number of Sellers	SELLERS (%)						
		Daily	Every 3 Days	Every 7 Days		Selling ^{1/}		Arriving by			From	
						Subsistence Crops	Cash Crops	4 Wheel Motor Vehicle	2 Wheel Motor Vehicle	Bicycle	Less Than 15km	More Than 15km
NW	Bilanga		X		240	18	26	-	-	73	97	3
NW	Bogande	X	X		100	-	10	-	-	76	100	-
NW	Samou		X		160	-	22	-	6	90	100	-
NW	Piela	X	X		500	-	21	-	-	96	97	3
NW	Coalla		X		230	-	32	-	6	93	91	9
NW	Liptougou		X		360	-	17	-	3	83	79	21
NW	Mani		X		840	-	19	-	16	73	73	27
MW	Diapangou		X		150	11	29	-	-	56	53	47
MW	Yamba		X		170	-	28	-	3	90	70	30
MW	Tibga	X	X		140	9	39	-	-	40	100	-
MW	Comin-Yanga		X		470	-	57	-	-	86	87	13
MW	Diabo		X		490	-	39	-	-	96	100	-
MW	Saltenga		X		200	-	47	-	-	93	100	-
SW	Diembende	X	X		2880	-	59	-	3	83	80	20
M	Gayeri		X		70	9	62	-	3	73	94	6
M	Matiacoali	X		X	150	12	10	3	3	33	94	6
M	Namougou	X	X		50	8	12	3	-	46	100	-
M	Ougarou			X	30	5	35	-	-	20	100	-
M	Kantchari	X	X		200	17	7	-	-	56	100	-
M	Botou			X	680	24	20	-	13	40	70	30
SE	Diapaga	X		X	190	13	15	3	3	43	87	13
SE	Logobou			X	420	22	24	-	16	73	80	20
SE	Mahadaga			X	470	18	30	-	10	86	100	-
SE	Namonou	X		X	1200	14	25	3	10	43	87	13
SE	Tambaga			X	180	20	23	3	-	40	97	3
SE	Tansarga			X	290	18	22	-	13	76	50	50
SE	Partiaga			X	110	33	12	-	3	33	97	3

Source: Data obtained by SAED, on contract to UFRD project. ^{1/} Subsistence cro

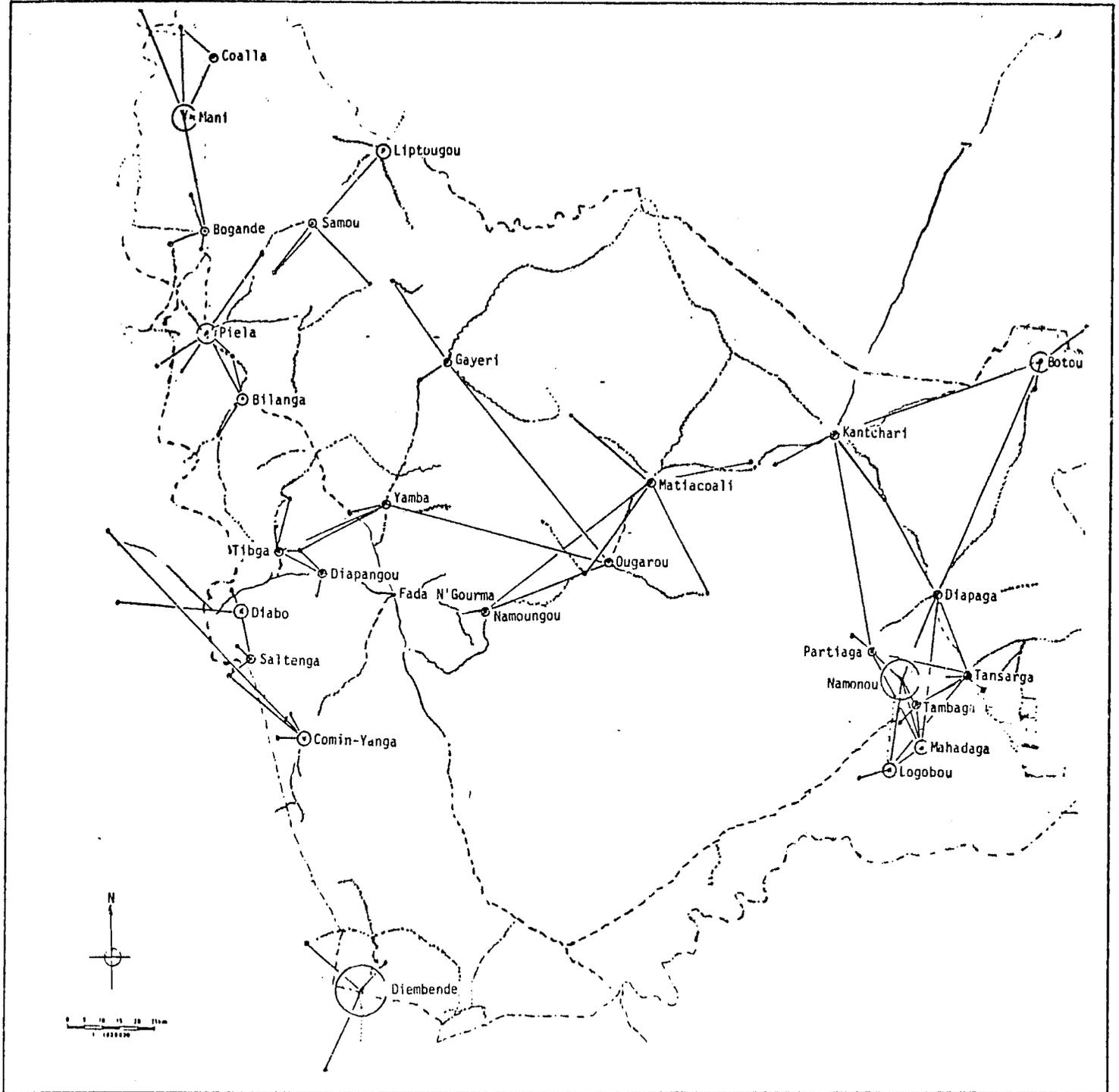
II-28:

AL MARKETS OF THE EASTERN REGION, 1980

No	From			BUYERS ARRIVING FROM (%)			RANK ORDER OF OTHER MARKETS ATTENDED BY SELLERS			
	Less Than 15km	More Than 15km	Going to Other Markets	Less Than 4 km	5 - 10 km	More Than 10 km	1	2	3	4
	97	3	53	50	25	25	Kouri	Bilanga-Yanga	Piela	Gaboa
	100	-	10	90	10	-	Mani	Nagare	Kossoudougou	Nindaongo
	100	-	90	70	25	-	Kodjoani	Bongou	-	-
	97	3	37	45	50	5	Kouri	Yaongo	Leoura	Tangaye
	91	9	97	60	25	15	Bamougou	Banda	Mani	-
	79	21	70	35	15	50	Kodjoani	Habanga	-	-
	73	27	57	70	15	15	Coalla	Yalgo	Bamousgou	Obdaga
	53	47	37	45	45	10	Tantiaka	Louargou	Tibga	Banolo
	70	30	50	80	5	15	Tantiaka	Nayouri	Ougarou	Tibga
	100	-	53	60	25	15	Mahouda	Tantiaka	Nassoubdou	Dianga
	87	13	83	95	5	-	Pouytenga	Sakongo	Bissiga	Kogo
	100	-	63	35	50	15	Zanre	Koulpissi	Koulouko	Maouda
	100	-	77	60	40	-	Bissiga	Lorgo	Diabo	-
	80	20	53	70	-	30	Sanga	Morogo	Dapaong	Papri
	94	6	91	70	10	20	Haba	Oue	Ougarou	Bassieri
	94	6	27	55	-	45	Bormangou	Nassougou	Piega	Bourgou
	100	-	30	75	15	10	Piega	-	-	-
	100	-	20	90	5	5	Piega	-	-	-
	100	-	57	65	-	35	Sakouani	Boudieri	Partiaga	Botou
	70	30	67	35	35	30	Porri	Namounou	Tamou	Toubiti
	87	13	47	85	-	15	Namonou	Tausarga	Mahadaga	Boudieri
	80	20	70	65	-	35	Namonou	Manadaga	Nagare	-
	100	-	80	25	-	75	Namonou	Logobou	Tambaga	-
	87	13	63	45	15	40	Tansarga	Tambaga	Mahadaga	Diapaga
	97	3	50	60	30	30	Namonou	Tansarga	Yobri	-
	50	50	90	10	15	75	Namonou	Logobou	Kodjari	-
	97	3	50	70	10	20	Namonou	Nadiabou	Tansarga	Manadaga

istence crops are defined as millet & sorghum. Cash crops as rice, beans, etc.

HIERARCHY OF PRINCIPAL MARKETS IN THE EASTERN REGION:
BASED ON NUMBER & MOVEMENT PATTERNS OF SELLERS, 1980



NUMBER OF SELLERS

- More than 1,500
- 1,251 - 1,500
- 1,001 - 1,250
- 751 - 1,000
- 501 - 750
- 251 - 500
- 250 or less
- Other markets

Source: Table II-28
Selected Characteristics
of Principal Markets of
the Eastern Region

9. The Hierarchy of Central Functions

As indicated in the foregoing, most types of higher order or central functions, (i.e., the services provided in central villages and towns serving rural populations residing in surrounding settlements), tend to be located in the larger villages of the region. Within the set of larger villages, theory suggests that there should be a general correspondence between the population of a settlement and the number of the central functions located within it. While this relationship is not perfectly exact in the eastern region, to a considerable extent because the level of "urban" development has not yet reached a sufficient degree of articulation, a general tendency of functions to increase with size is evident to some extent. 134

As indicated in Table II-29, the hierarchical distribution of central functions across a set of 23 selected central places has some association with village size; the larger places tending to have more services available in them.¹ Fada, Diapaga and Bogande, for example, each have over 20 functions. What is more striking, however, is the number of places which have very few, like Coalla, Comin-Yanga, Liptougou and Gayeri. The paucity of functions in each of these places underscores previous descriptions of sectors and cantons of the region where sectoral services were noticeable by their absence. As suggested by Map 14, whereas certain portions of the region, such as the southeast and the middle-west appear relatively well served by concentrations of villages with high order functions, other areas like the north and northwest are considerably less well provided for.

1/ The central places were selected through a process of elimination, both of villages and of functions. A quick survey of the 638 villages of the region identified 49 with functions of one kind or another. Village questionnaires were undertaken in each of the 49, and functions common to all of them were eliminated. Local opinion was obtained on the relative importance of the remaining villages and this, in combination with the survey results identified 22 for further study. The results of the further study, combined with secondary data, are contained in Table II-29. Fada N'Gourma was not a subject of study, but secondary data permitted its inclusion in the Table.

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The significance of the distribution of functions however, takes on a different meaning within a sectoral perspective. As indicated in Table II-29, there is a hierarchical distribution of functions within each of several major sectors. Within agriculture the most common function is an extension agent station, followed closely by a grain mill, an ORD subsector headquarters, a blacksmith and a grain storage silo. Less common are things like animatrice stations, ORD sector headquarters, peanut shellers and OFNACER offices. Although the table might make it appear that certain places lack the functions in question, one must recall that most of the services are mobile. All ORD personnel move from village to village, OFNACER operates through ORD personnel, blacksmiths, mills and shellers move through the market system, and so forth. Similarly, small-scale entrepreneurs serve wide areas, even though residing in just a few. If a village does not have an agricultural or small enterprise function located there in permanence, it generally gets one in passing. Not surprisingly, the vast majority of citizens contacted in the centers did not voice complaints about the absence of any of these types of functions.

This is not at all the case with health, education and transport/communication functions. In the case of the former two sectors, places without health facilities or educational facilities generally put these as top priorities; and places with them nevertheless expressed desires that the facilities be upgraded; particularly with regard to equipment and supplies, as was noted earlier. It was not enough simply to "have" one if the facility in question could not provide the services it was supposed to in the villages in which they were located, let alone surrounding areas (e.g., lack of space for pupils, lack of medicinal supplies, etc.). From a local perspective these were critical functions.

With regard to transport and communications functions, the most common was the mbylette mechanic, followed by car and truck owners (useful in emergencies as well as commercial transport), and PTT stops. Radio-telephone, telephone and postal services are very few and far between. The relative paucity of these functions is related to several factors, not least of which is the low-income

of the country which restricts ownership of mechanical vehicles, prevents road construction and maintenance and which limits the number of communication systems that can be put in place. Complaints in this area were almost entirely focused on the absence of reliable road access, as discussed earlier. Isolation is a problem which most villages are very well aware of. This is also true with respect to isolation from useful administration services, both in forms of visiting an arrondissement or subprefecture office, and in having the responsible officers visit the villages they are responsible for.

In countries without severe economic constraints, the hierarchy of functions is a useful instrument for identifying major gaps in provision of certain services, and if such a circumstance were to happily befall Upper Volta, one could readily identify for places like Coalla, Liptougou and Gayeri certain glaring needs for critical functions to enhance the rural development potentials of the villages and the areas surrounding them. The filling of "gaps" nevertheless requires some public and private resources which are acutely scarce at present. It would serve little purpose to suggest the provision of this or that in new places when existing functions are sorely deficient in places where they already exist. Provision of new functions, in the sense of having the government build and supply such services, must be regarded as a longer-term operation. Something other than this should be addressed in the shorter-term, particularly something which could facilitate possibilities in the longer-term.

In this regard, it should be noted that the scalogram of functions (i.e., Table II-29), while useful as a summary overview, overlooks the very informative qualitative characteristics of each of the villages, as described in the village monographs (Annex B). Though not usually regarded as a "function," one of these important characteristics is the dynamism of local communities with respect to providing their own "functions." In the eastern region, eight of the central villages stand apart from the rest in this regard. These include the Parents Association (PA) at Botou which has provided ample supplies for its school; the community of Diapangou which has provided its own school pharmacy, built its own maternity and is building its own dispensary; similarly active communities at Diembende, Coalla, and Liptougou; advanced farming and artisan communities at Bilanga and Diabo; and progressive entrepreneurs in and

around Diapaga who have been assisted by the Partnership for Productivity lending operation.

137 If a "function" of considerable potential can truly be said to be scarce, then it is this one relating to local development initiative. It is also to this one that considerable short-term attention might profitably be put.

TABLE II-29: HIERARCHY OF FUNCTIONS FOR SELECTED CENTRAL VILLAGES, EASTERN REGION, 1980

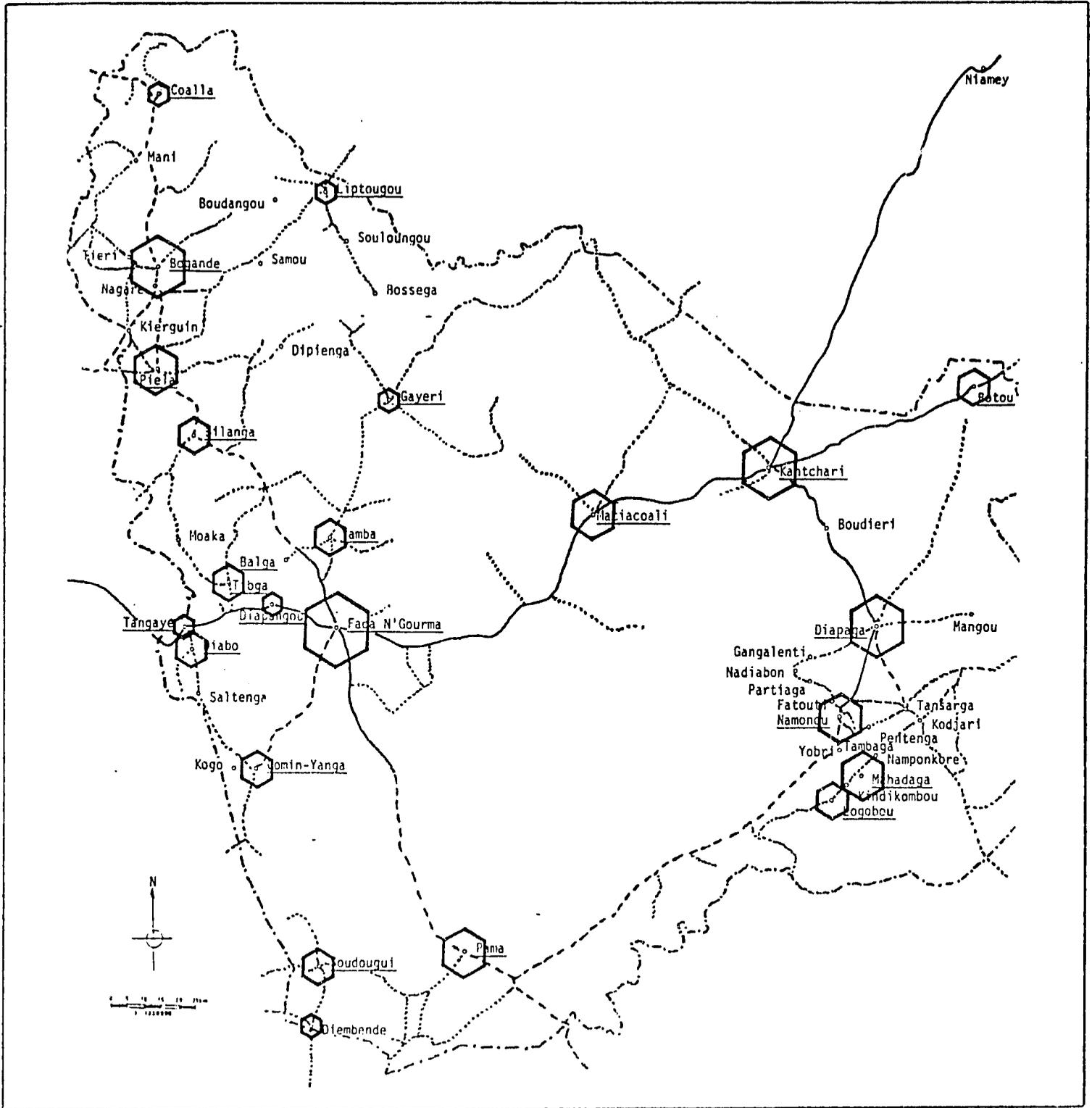
CENTER	POPULATION (1975)	AGRICULTURE					SMALL ENTERPRISE					HEALTH			EDUCATION		TRANSPORT & COMMUNICATIONS										ADMINISTRATION					TOTAL							
		Extension Agent	Grain Mill	ORD Subsector	Blacksmith	Grain Storage (Silos)	Animatrice	ORD Sector	Peanut Sheller	OFNAGER Office	Baker	Peanut Oil Maker	Mason	Kerosene Oil Sale	Carpenter	Dispensary	Maternity	Pharmacy	Hospital	Primary School	CFJA	Secondary School	Motorbike Mechanic	Car and/or Truck	PTT Stop	Gasoline Sale	Telephone	RAC	Accommodation	Airfield	Car Mechanic		Post Office	Arrondissement H.Q.	Water/Forest Service	Sub-Prefecture	Public Works Dept.	Prefecture	
1. Fada N'Gourma	13,200	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	35
2. Kantchari	2,800	X	X	X	X	X		X			X	X	X	X	X	X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X				28
3. Diapaga	5,300	X	X	X	X		X	X	X		X		X		X	X			X			X	X	X	X	X	X	X	X			X	X	X				25	
4. Bogande	4,900	X	X	X		X	X	X		X		X			X	X			X	X		X	X	X		X	X		X			X	X	X				22	
5. Matiacoali	2,700	X	X	X	X	X	X	X		X		X			X	X			X			X	X	X	X								X					19	
6. Pama	2,200	X	X	X		X	X	X		X		X		X	X	X			X			X		X		X		X			X	X	X					19	
7. Mahadaga	3,000	X	X		X		X		X	X	X	X		X	X	X			X			X	X			X												16	
8. Namonou	4,800	X	X		X		X		X	X		X		X	X	X			X			X		X	X													15	
9. Puela	3,930	X	X	X	X	X			X	X	X			X	X	X			X			X	X																15
10. Butou	2,000	X	X	X	X	X	X			X	X	X			X	X			X			X	X																14
11. Logobou	3,700	X	X	X	X	X	X				X		X		X	X			X				X																13
12. Diabe	1,300	X	X	X			X	X			X				X	X			X			X		X									X						12
13. Yanzu	1,400	X	X	X		X					X	X	X	X	X	X			X				X		X														12
14. Comin-Yanga	3,600	X		X		X	X				X				X	X			X							X	X						X						11
15. Bilanga	2,000	X	X	X	X	X				X					X	X	X			X			X																11
16. Soudeugui	2,200	X	X	X	X	X				X	X	X			X	X			X																				11
17. Tibga	3,000	X	X	X	X	X				X					X	X			X				X																10
18. Coalla	7,700	X	X	X	X					X					X				X						X							X							8
19. Tangaye	2,400	X	X		X	X	X			X		X												X															8
20. Diembende	1,500	X	X					X			X		X						X						X														7
21. Diapangou	1,200									X	X		X		X				X					X															6
22. Piltougou	5,300	X		X	X										X				X			X																	6
23. Gayeri	3,100	X		X	X	X																																	4
TOTAL	70,500	22	19	18	16	15	12	8	5	4	14	11	11	9	7	19	18	5	1	21	1	1	13	11	11	7	7	5	4	4	2	1	8	6	5	1	1		

Source: Haute Volta (1980), MSU (1981).

NOTE: The functions in the table exclude those common to all or almost all places (e.g., markets), those which do not actually function (e.g., some schools) and those for which interpretation is a matter of opinion (e.g., all-year water supply).

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HIERARCHY OF CENTRAL VILLAGES & FUNCTIONS, EASTERN REGION, 1980



——— All-weather road (AW)
 - - - Dry-weather road (DW)
 ····· Motorable trails
 - - - Limits of region
Bilanga Principal central villages
 Yobri Other principal villages studied by UFRD project

Number of Central Functions

————— More than 30
 ————— 20 to 30
 ————— 15 to 19
 ————— 10 to 14
 ————— less than 10

THE CENTER-WEST REGION

CHAPTER THREE

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The Center-West Region covers an area of about 26,300 square kilometers, and is about half the size of its counterpart in the east, though it has just about twice the population, 800,000 (1978).

The northern and southern portions of the region form two geographically distinct areas, with significant differences in population density and corresponding economic characteristics. The north covers a part of the Mossi Plateau, defined as all administrative areas in which over half of all villages are predominantly inhabited by the Mossi people. It has a north-sudanic climate with rainfall varying between 650 and 1000 mm a year. Substantial decreases in agricultural output occur every 4 or 5 years here as well because of irregular rainfall.

Some 85,000 farming families live in the northern area, and its population density of 60 inhabitants per square kilometer exceeds the land's carrying capacity using traditional agricultural practices. Soil erosion and over-use through shortened fallow periods has contributed to the impoverishment of arable land areas. The area is subject to net emigration, and has been so for some time.

By contrast, the southern area contains only 15,000 farming families, and at a density of 9 inhabitants per square kilometer. It is an important zone of net immigration, and may become even more important in this respect if and when onchocercosis is eliminated. The climate is of a southern-sudanic type with annual rainfall in excess of 1000 mm a year, and also more frequent than in the north. The soils are of average fertility. However, 70% of the arable land in the south finds its most productive use only as natural pasture.

In general one might assume that the south offers many more productive opportunities than the north and, by and large, this is true. Nevertheless there are some basic limitations. For example, despite its more abundant rainfall and its two perennial rivers, the Black Volta and the Sissili (the latter is barely perennial, for there is very little flow in the dry season), the south is worse off for water than the rest of the region. In the south the granite formations, responsible, no doubt, for the comparative fertility of the soils, occur at shallow depths and frequently out-crop. The search for water, invariably the first priority of rural people, is difficult and expensive and most uncertain of success. This does not imply that the north and the center are well-supplied. Most villages in whatever part of the region report that their wells run dry or yield very grudgingly

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A. AGRICULTURE

According to estimates prepared by the Institut National de la Statistique et de la Demographie (INSD) in 1975, of the 2.6 million hectares of the region, about 805,000 are arable and suitable for cultivation. Approximately 410,000 hectares, or 51% of this is actually under cultivation. The characteristics of major crop production on this surface is given in Table III-1. The most important of these are sorghum and millet, of local variety, which annually occupy 70-75% of all cultivated areas. Sorghum, significantly more important than millet, is of two types: the white destined for direct consumption and the red destined for the manufacture of beer (dolo). Corn and rice, the other principal cereals, are produced only to a limited extent.

Among cash crops, groundnuts and cotton production are the most extensive, together covering some 20,000 hectares. Other commodities, though not particularly extensive in terms of area used, have significant economic value in several parts of the region. The more important of these are root crops (manioc in the central area and yams in the south); vegetables like onions, cabbage, eggplant, potatoes and tomatoes in the areas surrounding Reo, Kindi and Koudougou; and fruit (mangoes) near Reo and Tenado.

Regarding livestock, there are various estimates of the size of herds. Depending on the source, there are between 185,000 and 260,000 cattle, and between 260,000 and 700,000 sheep and goats. In addition, there are said to be 100,000 pigs, 15,000 donkeys and 120 horses.¹

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The 100,000 or so farming families practice traditional methods of agriculture, and these vary relatively little between ethnic groups. As in the eastern region, these methods are characterized by splitting fields between the village and the "bush," by very labor intensive effort, by summary crop maintenance, by limited use of agricultural inputs, by traditional fallow rotation, by absence of anti-erosion measures and by adequate storage procedures.

While "modernization" has not developed to an extent deemed optimal for the environmental circumstances of the region, changes are nevertheless proceeding apace; as suggested by the existence of vegetable gardening in several areas. Progress, if one chooses to call it that, is particularly noticeable among recent migrants in the southern part of the region where, apparently, an above-average proportion of farming units have entered into the cash economy, have availed or have tried to avail themselves of credit for animal traction purposes, and have increased their use of inputs such as herbicides and fertilizer. Underlying this tendency, of course, is the fact that they are migrants and the self-selection this involves has concentrated a larger proportion of the more innovative families and individuals in the south. Whether these tendencies will gather momentum and "spread" remains to be seen.

Backing up these changes, in theory at the very least, is the Koudougou ORD which in 1978 employed over 350 individuals. Organized in roughly the same pattern as its counterpart in the east, it too suffers from very limited fiscal means; made more difficult over the years by gradual declines in support from international assistance. In 1977/78 its expenditures were FCFA 277 million, of which over 50% represented the costs of salaries to ORD

¹/ Haute-Volta (1979(c))

and CFJA personnel. On a per capita basis, this represented 40% of the level of expenditure for the same period in the Fada ORD. One cannot construe too much from such a comparison, but it does provide another indicator of the Government's regional priorities, mentioned briefly earlier in this report.

B. POPULATION AND SETTLEMENT PATTERNS

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According to the census, the population of the center-west region was a bit less than 800,000 people in 1975. This was classified as 62,000 "urban," 103,000 "semi-urban" and 615,000 "rural." These distinctions are, as mentioned earlier somewhat misleading, since they are associated only with the size of settlement rather than any criteria relating to economic structure. Most of the semi-urban and a large segment of the urban population, perhaps all together some 125,000 people in these two categories, are essentially rural. The ethnic composition of the population is composed mostly of the Mossi people (50%) residing in the north, the Gourounsi people (40%) in the west and south, and the balance of the Bobo, Dagari and Peulh.

There is some uncertainty regarding the accuracy of the 1975 census in the region (see Note 2, Table I-2). A more recent estimate credits the area with a 6% higher population in 1975 and, applying its historic growth rate, has calculated a population of 892,000 in 1978.¹ As indicated in Table III-2, average densities vary significantly between the north (61 inhabitants/square kilometer) and the south (9 inhabitants/square kilometer). Associated with these densities and the relative agriculture potential of the areas, the distribution of population within the region is undergoing significant change.

In the north, as in the rest of the Mossi plateau, emigration is dominant. It has been estimated, for example, that over 10% of the north's population (or about 80,000 original residents) have left its rural areas; headed to

¹/ Haute-Volta (1979(c))

to the Ivory Coast and Ghana, to the major cities of the country, to "new lands" in various parts of the country, and to the southern part of the region.¹

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The south, between 1961 and 1977, is estimated to have received about 23,000 immigrants; 3,000 in the town of Koudougou and 20,000 over the rest of the area, but particularly in the vicinities of Leo and Fara. Most of these migrants have originated from the Mossi Plateau.

As in the east, the population of the region is distributed over a large number of villages and towns (Table III-3). The larger ones tend to be located in the north, and the smaller in the south. In 1975, for example, the two towns with more than 10,000 people were Koudougou and Reo. Several of those in the next smaller class, such as Yako, Vili, Nandiala, Imassogo and Kindi, will likely by now have more than 10,000 inhabitants. By contrast the very small villages with less than 100 people predominate in the south. In 1975 almost all of these tiny settlements, 79 out of 81, occurred in the southern districts; and so did 103 of the 117 villages with more than 100 but less than 250 inhabitants, and more than half of those with between 250 and 499. There were only two villages in the south in 1975 with populations between 3,000 and 3,999, Leo and Niego, and there were no larger ones. Leo today, however, has grown to at least 5,000. By contrast, 51 places with more than 3,000 inhabitants were to be found in the center and north of the region. There are particular concentrations of large villages in the cantons of Lalle, Kokologho, Konkistenga, Reo and Didir.

C. RURAL DEVELOPMENT FUNCTIONS

As has been suggested at the outset of this report, the qualitative characteristics of most rural development functions in the center-west region are largely the same in the east, and what has been said already can in significant measure be transferred directly to what follows. Such differences as

¹/ Haute-Volta (1979(c))

do exist are highlighted whenever appropriate. It should be noted, however, that in certain cases the center-west region's qualitative and quantitative advantage over the east are not adequately reflected in this section because of insufficiency of comparable information concerning the former. Koudougou (pop.: 37,000) for example, is a "town" in the usual sense of the word. It has, by Upper Volta standards, an "industrial base" of small-scale and medium-scale enterprises. It is leagues ahead of Fada N'Gouma in this regard, as well as in other things such as commercial and service establishments of the kind one usually associates with the concept of "urban." Nevertheless, after Koudougou, and perhaps Yako, the two regions generally come to resemble each other much more closely in terms of the services provided by rural development functions. 148

i. Transportation

The region has an extensive network of roads of various classes. According to the road map, which is reasonably but not completely accurate, there are 720 kilometers of the main "National" roads, practicable in all seasons. Some of them extremely well-maintained and all of them receive maintenance of some sort.¹ There are 350 kilometers of "regional and departmental" roads, some of which get a little occasional maintenance from the Service d'Entretien des Routes Secondaires (SERS). On these roads travel may be delayed, perhaps for periods of days at a time in the wettest months, and some of them are only practicable in the dry season. There are almost 2,000 kilometers of rural roads, which get no maintenance at all, other than an annual clearing carried out by the communities they serve. Nevertheless, because of these last a majority of villages in the region can be reached by trucks and cars at least for a good part of the year. Many of them are serviceable though not fast and smooth, in any weather. Of the major villages

^{1/} There is an exception to this. National Road 13 running through the center of the region from Yako in the north to Leo in the south which is not well-maintained. Certain sections, particularly between Minissia and Kordie in the north and between Thyou and Gao in the south are extremely difficult, sometimes impossible, during the rains (see Map 15).

only three, Nanoro, Kindi and Tindilla, are completely inaccessible by ordinary vehicular traffic during the rains. It must be noted, however, that the question of accessibility is a normative one. As in the eastern region, much depends on the determination of the vehicle operators in question.

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The road pattern reflects, as in the east, the distribution of the population; with a greater density of them in the north as compared to the south (see Map 15). There is, in addition, a hierarchical pattern of radial arrangements which reflects a far more evolved structure of human settlement than that encountered in the eastern region. The first-order pattern contains a series of roads linking Ouagadougou with other major urban centers and which pass through the region. These roads are Ouaga-Bobo (N-6) passing through Leo, Ouaga-Bobo (N-1) passing through Sabou, Ouaga-Bedougou (N-1/N-14) passing through Koudougou and Ouaga-Ouahigouya (N-2) passing through Yako. At Yako, Koudougou and Leo second-order patterns are apparent with important regional roads radiating out from them, including N-13, which links them together down the spine of the region. However, below this level reflecting the limited evolution of an "urban" structure in this particular area of the country, third-order patterns are somewhat rare. Reo and Didir seem to be the only places where a discernible pattern has evolved; but one cannot make too much at this level from lines on a map. Dominant modes of transport such as foot, cart, bicycle and mobylette use trails which are not contained on "road maps" and which usually cannot be interpreted very easily even if they were. All in all, the region has a good road network by comparative standards; not the best, but good nevertheless.

In addition to roads, the region does contain a segment of the railroad line (R.A.N.) running from Ouaga to Abidjan. Several of its four passenger trains each day (in each direction) make stops in the region. There are active stations at Bingo, Loaga, Koudougou, Batondo and Zamo.

2. Agricultural Services

The Koudougou ORD, responsible for public agricultural development services in the center-west region, is divided into six sectors with corresponding headquarters at Yako, Leo, Koudougou, Tenado, Fara and Reo (see Map 16). With these there are 19 subsectors. The sectors generally conform to the areas of the five subprefectures existing in 1978, before all the new ones were created (see below). 150

In 1978/79 there were about 150 extension agents of one kind or another assigned among the various sectors, as follows: Yako (28), Leo (27), Koudougou (39), Tenado (22), Fara (16) and Reo (18). Whether these figures include the agents permanently located at Koudougou (though assigned responsibilities for certain sectors) or not is unknown. There were, in addition, some 137 technical personnel assigned to the 112 operating CFJA. These included 129 teachers, 5 animators and 3 counselors.

The extension services worked with about 367 groupements villageois of varying quality scattered throughout the region (see Table III-4). In general, the difficulties encountered in the delivery of extension services in the region are the same as in the east. However, the longer establishment of the center-west ORD, its proximity to the monetized urban economies of Ouagadougou and the town of Koudougou, its tighter integration resulting from superior road infrastructure, and several other important determinants has elevated the receptiveness of the rural population to innovation a good deal higher than in the relatively isolated eastern region. For example, from its beginnings in 1975, efforts at introduction of plough farming have met with considerable success. Credit demands for this purpose averaged around 300-400 a year in 1977-79. Fiscal constraints, which permit no more than 200 loans a year, are the limiting factor in the wider diffusion of this method. Relative to the number of farming units of the region, 100,000, this may not appear significant. Relative to the number of new innovators in 1975, less than 25 per year, it is very significant.

3. Health

There are approximately 45 dispensaries and 44 maternity clinics in the region, more than half of them located in villages having more than 3,000 inhabitants (see Table III-4). The characteristics of these facilities and their personnel are for the most part mirror-images of circumstances in the eastern region. Cassou, for example, is officially credited with a dispensary but it in fact is closed for lack of staff, and the Cassou people have to resort for medical advice and treatment to the dispensary at To, which is 25 kilometers away from the canton's chief town, and considerably further from its most remote villages. Where they do exist, the dispensary equipment generally resemble those at Poa, where the canton chief used to be the nurse. The examination table is a traditional Mossi semi-reclining stool which the chief donated because there was nothing better. Equipment at maternity clinics is equally scant. There are, of course, a few exceptions. At Kindi, for example, there is a well-built extension to an old and inadequate building provided by the Brothers of the Holy Family. Surprisingly, it has running water, which works.

At Leo, where the dispensary is designated as "medical center," the facility is a large, modernistic concrete building; but which nevertheless has a leaking roof. Indeed, apart from the regional hospital at Koudougou, supported by Chinese foreign assistance, the only substantial health facility of the region is the "medical center," effectively a district hospital, at Yako. It is well-staffed, well-constructed, comparatively well-equipped and with ample accommodation for patients. It has the great advantage of a qualified medical officer, the only one to be found in either of the two regions outside the regional hospitals at Koudougou and Fada N'Gourma, who pays regular visits to some eight dispensaries in the cantons around Yako. The Yako center does not, however, have facilities for major surgery and patients requiring the latter have to be sent on to the hospitals at Koudougou and Ouahigouya.

Even then the Yako facility suffers from a host of operational difficulties. It is, for example, equipped with a power plant, electric light and running water supplied from a reliable well fitted with an electric pump, installations which represent a substantial capital investment. None of them work. There is no budget to buy diesel fuel for the generator. In the village dispensaries, this sad situation is translated into a lack of kerosene for the hurricane lamps by which the nurses and matrons have to work at night. Some nurses adopt expedients to overcome this particular difficulty. They construct little health record books from scrap paper, sell them to new patients at .5 Fr. each and use the proceeds to buy kerosene and a few other essential supplies. Thus, as in the east, where there is a will there is a way; at least within the framework of what is possible with extremely scarce resources.

4. Education

The region has approximately 86 primary schools, generally located in the larger villages having populations of 1,000 or more. (see Table III-4). As in the east, their physical condition and level of supply is sorely lacking, yet nevertheless they extract considerable enthusiasm on the part of local populations and substantial efforts and independent support through Parent's Associations. In certain cases this almost universal interest in schooling has given rise to procedures for the equitable allocation of spaces to children from cantonal villages not endowed with schools. At Bingo, for example, to combat the general tendency of schools to draw pupils almost exclusively from within the villages in which they are located, the cantonal chief allocates places for each of the surrounding villages which do not have schools in them. Such procedures are, however, rare.

There are, in addition to the primary schools, about 117 Young Farmer Training Centers (CFJA), of which 112 have personnel assigned to them. They also tend to be located in the larger villages (see Table III-4) and to draw pupils from their immediate village of location. As in the east, the physical

facilities of the CFJA tend to be far superior to those of the primary schools, especially for 55 which had received renovation in the recent past. There are, of course exceptions to this. At Gogo, in the canton of Poa, the facility is housed in a dilapidated shed with only a blackboard as the sum total of its education material.

157 Unlike the east, the CFJA are reasonably popular and well-attended. Nonetheless it is frequently said that villagers consider them second-best substitutes for regular primary schools. At Gogo, for example, the teacher declared that if a primary school were to be provided there, her students would immediately abandon the CFJA program. Perhaps with combined curricula, as is proposed for the school at Samba and three other locations, this attitude will gradually change.

Apart from the secondary schools at Koudougou (including some private ones), there are secondary facilities at Leo and Yako (Colleges d'Enseignement Superieur). The college at Yako is quite new, the gift of a philanthropical citizen. While the principals of these institutions can certainly point to some deficiencies in the physical facilities, the Yako and Leo secondary schools are much better endowed with buildings, and much better maintained, equipped and supplied than the primary schools of the region. They serve very extensive areas. At Leo the students are drawn not merely from Leo itself and other villages in the Leo subprefecture, but also from Ouagadougou, Koudougou and Po. However, only a very small percentage of primary school leavers in the rural areas have any great chance of entering these institutions. There are simply not enough places in them and competition is extremely severe. Unless the boys and girls do so well in the entrance examinations as to win full scholarships, the fees and the costs of lodging and boarding are more than the average rural family can afford.

5. Administrative Services

The region is coincident with the Department or Prefecture of the Centre-Quest, and has its headquarters at Koudougou. The status of the administrative

subdivision within it is, at present, somewhat uncertain. In 1978 there were five established subprefectures (at Koudougou, Yako, Leo, Reo and Tenado) and ten arrondissements (at Sabou, Didir, Nanoro, Kindi, Kokologo, Pouni, Fara, Bagare, Arbole and Samba). Some of these existed on paper only. The arrondissement at Arbole had stood vacant since 1965 when it was established, and was in the process of being activated in October 1979. The one at Bagare has never been activated. By the beginning of 1980, apparently, the arrondissements of Sabou, Nanoro, Kokologo, Pouni, Fara and Samba had been upgraded to subprefectures, two new arrondissements at Ouessa and Sapouy had been established and a third arrondissement had been proposed for the area of Cassou. Presumably these measures were in some part related to the Government's objective of decentralization of administrative services. With the change in Government in December 1980, the status of the new and upgraded administrative units became subject to question, and it is now uncertain whether the regime of subdivision existing in 1978 has been put back into effect, or whether the changes made up until late 1980 remain. The only thing quite certain is that there still remain 39 cantons and 2 "communes" (at Koudougou and Reo).

As in the eastern region, the physical facilities from which administrators operate tend to be in better condition than other public facilities. This is not true, however, of the more recently established units since stations are sometimes established without sufficient foresight regarding their adequate support. Thus the Chef d'Arrondissement at Sapouy has a perfectly good office, which is unusable because it does not have a stick of furniture in it. He has no staff and no transportation, but has been able to borrow a home while the community is preparing to build him one. His colleague at Arbole has a modest office, a residence which is being made habitable by public subscription,¹ but no vehicle and no office staff, though he is helped by the three canton secretaries of the district. Both are better situated than the new Chef d'Arrondissement of Ouessa, who has nothing but a borrowed house.

¹/ By the end of 1979 the three cantons of Arbole arrondissement had raised Fr. CFA 700,000 by voluntary subscription to put their new chef d'arrondissement's house in order.

In terms of actual provision of the wherewithal to work with, the administrative officials fare no better than their counterparts in the eastern region in terms of budgetary resources, transport equipment and so on. On a rough population basis, where one has twice as many people as the other, the two regions have a more or less equivalent distribution of administrative services. For example, there are 18 administrative units in the center-west and 8 in the east. In the center-west, however, the services rendered by the officers in the units tend to be more effective if for no other reason than the higher population density and the better road network that links villages together. On any given day the administrative officers can see more people and visit more places than is possible most of the time in the east.

The basic infrastructural advantage similarly increases the effectiveness of other types of services: such as the post offices at Koudougou, Yako, Leo and Reo, the radio-telephone (RAC) systems in the aforementioned places and also at Sabou, Tenado, Didir, Pouni, Fara (apparently not working) and Bagare; and the Service des Eaux et Forets personnel at Koudougou, Yako, Reo, Tenado, Sabou, Didir, Nanoro, Kindi and Fara. Still, one cannot make too much of the advantage. Funds are generally so limited that travel is constrained on the roads, however better they may appear to be, and expenditure for anything above and beyond the cost of travel is rarer still; and so relatively little gets done of a tangible nature.

6. Markets

The actual number of market places in the region is not known with any accuracy, but at minimum, from the data obtained in the village questionnaires, there are at least 234. These, like their counterparts in the eastern region, tend to be located in larger settlements, with almost all places of more than 2,000 people having one. Overall, some 34% of the region's villages have a market (see Table III-4) and this is a substantially higher proportion than in the east (28.3%).

In the middle and northern areas of the region, where people are predominantly of Mossi extraction, markets normally occur every three days; and in the south of the region Gurunsi villages normally hold their markets every six days (See Table III-5). Distance between the villages in the south, economic conditions and traditional religious usages may all have something to do with this. In the middle and north whenever the three-day market falls upon a Sunday it is an exceptionally busy one, attracting two or three times the attendance that regular three-day markets do. This was noted at Reo, Kyon, Dassa and Bonyolo, and probably occurs at many other places as well; the occasion being known as the "21st of Reo," and the 21st of Dassa," etc.

There are a few exceptions to the three-day and six-day rule. Sigle and Leo hold their markets once a week, both on Sundays. Fara, a village with a mixed population, holds a market every three days and one every six days, and has a small daily market as well. Cassou has two markets a week, a "small" one on Thursdays and a "big" one on Sundays. Daily markets, in addition to the periodic ones, were noted at Yako, Reo, Kyon, Leo, Fara, Kokologo, Poa, and Todin, and occur no doubt in many other places besides. In larger centers like Yako, Reo and Leo quite a lot of business may be done in the daily markets; but in most places the daily market amounts to little more than a few women offering cooked foodstuffs to travellers.

Some other peculiarities also exist. In some places, Nanoro and Pilimpikou are examples, although the SAED observers encountered no dealers and produce buyers in the market place, they mentioned there were dealers in the villages buying directly from farm families. What happens in the market, therefore, is not by itself a complete and sufficient measure of the business being done in a locality. In many places the sale and purchase of certain commodities, live poultry for instance, are carried on not at the market place but along the roads leading to the village and, at that, early in the morning before the market is fairly under way. Possibly the object is to

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 avoid payment of market fees, possibly it is something else. The Sigle market would appear to be less important than it really is because half the business is done outside the market. At Kouria an "unofficial" and unrecognized market is growing fast. The original attraction for villagers in this part of Lalle canton was the large mission station at Temnaore, and particularly its dispensary. The market sprang up spontaneously and now it is generally preferred to the better-known market at Sigle. These peculiarities, however, do not affect the picture of the overall market network.

The most important market in the region is the one at Koudougou. Almost all other markets, with the notable exceptions of Yako, Leo and Mia, feed into or draw from it to one degree or another. In all of the major markets within the sample of 34 surveyed by SAED in 1980, Koudougou was identified by sellers as the dominant place; if not in terms of actual attendance, then in terms of reputation.¹ In other major markets are those at Thyou, Kokologo, Fara, Leo, Yako, Mia (Arbole) and Reo, even though the last three are smaller in terms of numbers of sellers than some others like Bingo, Sakoinse, Nanoro, and Samba (see Table III-5).

Typical of these major markets is Thyou, with almost 2,000 sellers and an occurrence every three days. The physical site is large, containing 277 straw mat sheds, most of them in a good state of repair and arranged in orderly rows. On the verges of the market place there are six established shops, three places which sell gasoline, kerosene and "melange," two corn-mills, a couple of bars, and thirteen warehouses. The warehouses are not very big or solid ones, but it is evident that Thyou is sufficiently important to the produce brokers for them to build or rent premises in which to store their purchases.

1/ As indicated in the discussion of markets in the eastern region, the choice markets to be included in the SAED survey was based on the results of village questionnaire surveys, local recommendations and guesses. With the benefit of hindsight, certain markets like those at Zoula, Pouni, Bolgo, Dassa and Niogo could have been left out. Others, like Toessin, Goundi, Tita-Napone, Kouria, Hamele, Ramongo, Ralo, Pitmoaga, Goden and Vili should have been included. The exclusion of the Koudougou market was particularly unfortunate.

Less than half of the sellers questioned came from the village itself, some 43% coming from distances over 15 km. away and many of which from as far afield as Koudougou, Kokologo and Ouagadougou. Significant numbers of buyers also came from large distances (35% from over 10 km.) including the three places just mentioned. Not surprisingly, two and four-wheeled motor vehicles were commonly used by sellers (and presumably by many buyers also).

Fara is similar in size to Thyou and also has a large trade area with 27% of sellers coming from more than 15 km. and 60% of buyers from more than 10 km.; this last reflecting to some extent the lower population densities of this part of the region. Sellers and buyers often arrive from places as distant as Bobodioulasso, Ouagadougou, Koudougou, Hamélé and Ouessa. Fara appears to have, perhaps together with Leo, a larger geographical area of influence than any other market surveyed in the region. Yako is almost as remarkable, with its connections with Ouahigouya, Ouagadougou, and Koudougou; but it probably offers smaller volumes for purchase than Fara and Thyou. Both the latter serve productive areas with many Mossi immigrants, diligent and aggressive farmers from the north and center of the region. Given the differential agricultural potential in the region, the prospects are that Fara, Thyou and Leo will become even busier than they now are, and that Yako, Mia and Reo may decline a little. It is difficult to predict the future of Kokologo, but it will probably hold its own.

Below these seven markets, which may be appropriate to describe as having regional significance, there are 15 others which appear to command considerable areas, perhaps appropriately described as sub-regional markets. Their connections with the national markets are less clear than those of the first group, though they are not entirely lacking. Their connections with the region's eight major markets and with a vast number of purely local markets are more obvious. These are the markets of Samba, Kordie, Nanoro, Pella, Kindi, Kyon, Batondo, Bouikom, Poa, Sakoiase, Bingo, Imassogo, Tindilla, Didir, and Todin.

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 Todin, for example, though it is not one of the largest of markets, attracts produce brokers buying millet, peanuts, rice, beans and shea nuts for shipment to Yako and Ouagadougou. Sellers came from as far away as Toma, at least 50 kilometers from Todin. Some of the buyers came from Gourcy, in the prefecture of the North, also about 50 kilometers away. Most of the sellers at Todin who dealt also at Yako, preferred Yako; but some did not. Todin was clearly preferred to all the other markets in its general area of the region.

The remaining markets, Pilimpikou, Nandiala, Bolgo, Sigle, Niogo, Cassou, Kabourou, Dassa, Kirsi and Bonyolo, may generally be considered as of only local significance, attracting buyers and sellers from their immediate vicinities. Pilimpikou, Cassou, and Kirsi may be slightly more important than the others in this group. The markets at Pouni, though it is a sub-prefecture headquarters, and Zoula though it has a very large population, are quite insignificant. It is easy to see why at Zoula. There is a thriving market at Goundi, a smaller place, only two or three kilometers south of Zoula. Goundi is on a main all-weather road, and Zoula is not.

Generally, it may be said that the trade of the north and middle areas of the region is dominated, though by no means monopolized, by the markets at Yako and Koudougou. Markets on or near the main Ouagadougou-Bobodioulassou road, that is to say Kokologho, Sakoinse and Thyou, have trade relationships with both Ouagadougou and Koudougou. Fara, not very far from that road, has relationships with Bobodioulassou as well. Leo, one of the principal markets of the region, is roughly equidistant from Koudougou and Ouagadougou but deals mainly with the latter and is the capital city's main source of supplies of yams. Reo, though it is a big and important market, is within the orbit of Koudougou, being only 14 kilometers from the regional center.

The market questionnaires, particularly those items which referred to the origins of buyers and sellers, did suggest some discernible groups of markets. These groupings are not, however, precise. What might be called "market areas"

merge with each other and overlap and do not, therefore, lend themselves to facile graphical depiction. Nevertheless, the Yako market does appear to dominate the less significant but still important trade center of Mia, (see Map 17) and the still less important markets at Samba, Boulkom, Tindilla, and Todin. Samba, in its turn, appears to be preeminent in an area which includes the market at Toessin (a fairly large one, which was not surveyed), and Pilimpikou. In addition, the market at Samba has associations with the market at Kordie, which falls within the zone dominated by Koudougou. West of Koudougou, the same traders appear to frequent the markets at Koudougou, Reo, and Goundi. Koudougou is easily the busiest of the three. Fara quite clearly commands the smaller markets to the southwest including Poura and the many small markets to its south: Kabourou, Niego and Hamele. Yet Hamele has established a zone of influence of its own, because of its situation on the Ghana frontier and the present economic difficulties of Ghana. The influence of the Leo market is felt as far away as Cassou, 60 kilometers to the north, Ouessa and Hamele, about 80 kilometers to the west, Tumu (in Ghana), about 30 kilometers to the south, and in all the local markets within a radius of 20 to 25 kilometers of Leo. Whether an accurate representation of the market network or not, the region clearly has a much more articulated system of markets than that described in the eastern region earlier on.

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On one score, however, the regions are similar. Market fees are not collected with any degree of apparent effectiveness. Total collections in the region for 1978 were given as between FCFA 3 and 4 million. The figure theoretically could be expected to be four or five times as much just by calculating on the basis of the numbers of sellers in the 34 markets surveyed, let alone on the total number active in the region. Though clearly it could be neither advisable nor practical to charge fees of all sellers, there nevertheless remains a relatively underutilized fiscal resource among these markets.

7. The Hierarchy of Central Functions¹

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As was the case in the eastern region, there is a general tendency for concentrations of functions to increase with settlement size (see Table III-6). However, given the more advanced level of urban articulation, the correspondence in the center-west is considerably closer than in the east. There are exceptions such as Poa with only seven functions although having over 4,000 people, -and Fara and Pouni with only 17,000 people but have 13 functions each. To some extent such differences are related to the proximities of various places to each other. As indicated on Map 18, places such as Poa are located relatively close to centers with higher-order functions, such as Kokologo and Koudougou. Poa, notwithstanding its size, is "served" by one or the other of these close settlements. A place like Fara, by contrast, is quite removed from its significant central village neighbors and thereby has acquired some additional functions, such as its ORD and administrative ascriptions. The same factors make the hierarchical positions of Leo and Koudougou seem quite close, though it should be noted that the number of functions ascribed to Koudougou greatly understates the quantity that the town has.

The most apparent characteristic of the distribution of functions is the great disparity between their concentration in the north and their non-concentration in the south. Of course this is tied closely with relative densities of population and the distribution of villages in the respective areas. Given the differential population growth potentials of the two areas,

1/ Central places were selected in similar fashion as in the eastern region, after a first cut identified 59 villages warranting closer attention. This list was pared down to 22 for detailed study; the reason for having exactly the same number as in the east remaining unclear. In addition to not including Koudougou among the villages to be investigated in detail, the benefit of hindsight suggests that the towns of Samba and Thyou should have been added to the list of 22. It should be noted that the number of functions identified in this region is less than in the east due to lack of secondary information on small-enterprise and other activities. The scalograms for the two regions are therefore not completely comparable.

it is likely that the southern villages will gradually acquire more private sector functions as time proceeds and become somewhat more integrated than is presently the case. The possibility of expansion of public sector functions, however, is another matter. It is not entirely certain that fiscal resources for the southern area can be made to increase at a rate commensurate with that of the population, at least not without withdrawing such resources from the northern area or other areas of the country. If such is the case the region may face a dilemma of decreased levels of service in the north, outpaced levels of service in the south, or a combination of both. Either way, as in the east, the possibilities for direct government intervention to increase the stock of functions without incurring a redistribution from other areas is quite limited. 162

Fortunately, as in the east, the region is endowed here and there with local initiative "functions" which habitually provide, or at least try to provide, their own functions. In the north these communities include Yako (private sector provision of a secondary school and active groupements villageois (GVs), Sabou (active Parent's Association and GVs), Imassogo (active Parent's Association), Nanoro (major community improvement efforts including road maintenance), Arbole (construction of an arrondissement director's living quarters), Boulkom (active Parent's Association), Tindilla, (dynamic group of truck farmers), Poa (construction of classrooms, teacher's quarters, a dispensary and a grain silo) and Bingo (active GVs, active CFJAs, road maintenance works, construction of a maternity, ORD living quarters, a grain silo, among others). The south is less fortunate, due no doubt in part to the difficulty of bringing diverse ethnic groups together on certain issues, but nevertheless has something. At Leo, for example, there is an Association Pour le Developpement Economique et Social (ADES) which has undertaken several relatively significant works in the subprefecture.¹

These are places with active "function-makers," (doubtless not the only ones in the region) which might profitably be the focus of short-term development attention addressed to improving current levels of central functions in the region.

^{1/} See respective village monographs, Appendix C

TABLE III-1:
AGRICULTURAL PRODUCTION IN THE CENTER-WEST REGION, 1975-1978

CROP	YEAR	CULTIVATED AREA (Ha)	OUTPUT (Tons)	YIELD (Kg/Ha)
MILLET	1975/76	69,900	28,900	415
	1976/77	79,300	35,700	430
	1977/78	80,900	30,000	370
SORGHUM	1975/76	159,800	72,200	450
	1976/77	164,500	74,000	450
	1977/78	186,200	78,300	420
CORN	1975/76	7,000	3,000	430
	1976/77	8,400	2,800	330
	1977/78	9,000	4,700	360
RICE	1975/76	900	225	220
	1976/77	1,000	320	320
	1977/78	1,400	1,040	730
COTTON	1975/76	8,100	2,700	N/A
	1976/77	8,100	3,400	420
	1977/78	5,200	2,300	450
GROUNDNUTS	1975/76	15,800	6,300	N/A
	1976/77	14,400	3,400	240
	1977/78	15,300	6,000	390

Source: Haute Volta (1980).

TABLE III-2:
POPULATION DISTRIBUTION & DENSITY IN THE CENTER-WEST REGION, BY SECTOR, 1978

SECTEUR	POPULATION (Nbre)	SUPERFICIE (Km ²)	DENSITE (Nbre/ Km ²)	FAMILLES D'EXPLOITANTS ¹ (Nbre)
Yako	212,347	3,285	65	23,594
Koudougou	358,804	4,138	87	39,867
Reo	105,041	1,759	60	11,671
Tenado	87,884	3,406	26	9,765
TOTAL NORD	764,884	12,588	61	84,897 (86%)
Leo	81,350	10,920	7	9,039
Fara	45,376	2,816	16	5,154
TOTAL SUD	127,726	13,736	9	14,193 (14%)
TOTAL GENERAL	891,802	26,324	34	99,090

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Source: Haute Volta (1979(c)).

1/ Average family size is estimated here at 9 individuals.

TABLE III-3:
SIZE DISTRIBUTION OF VILLAGES IN THE CENTER-WEST REGION, 1975

VILLAGE POPULATION	NUMBER OF VILLAGES
Less than 100	81
100 - 249	117
250 - 499	102
500 - 999	154
1,000 - 1,999	129
2,000 - 2,999	42
3,000 - 3,999	25
4,000 - 4,999	9
5,000 - 9,999	19
Over 10,000	2
TOTAL	680

Source: Haute Volta (1980).

TABLE III-4:
DISTRIBUTION OF SELECTED FUNCTIONS IN THE CENTER-WEST REGION, BY VILLAGE SIZE, 1979

VILLAGE POPULATION	NUMBER OF VILLAGES	MARKETS	PRIMARY SCHOOLS	DISPENSARIES	MATERNITY CLINICS	YOUNG FARMERS' T. CENTERS	VILLAGE GROUPS
Less than 100	81	1	-	-	-	-	63
100 - 249	117	7	-	-	-	1	83
250 - 499	102	26	2	1	1	6	45
500 - 999	154	38	12	4	4	21	73
1,000 - 1,999	129	79	21	9	9	37	51
2,000 - 2,999	42	35	12	4	4	21	25
3,000 - 3,999	25	20	16	11	10	11	12
4,000 - 4,999	9	9	6	3	3	7	6
Over 5,000	21	19	17	13	13	8	9
TOTAL	680	234	86	45	44	112	367

Source: Haute Volta (1980).

NOTE: Excludes Koudougou.

TABLE III-5: SELECTED CHARACTERISTICS OF PRINCIPAL

AREA	MARKET	PERIODICITY			SELLERS (%)							
		Daily	Every 3 Days	Every 7 (6) Days	Number of Sellers	Selling ^{1/}		Arriving by			From	
						Subsistence Crops	Cash Crops	4-Wheel Motor Vehicle	2-Wheel Motor Vehicle	Bicycle	Less Than 15km	M
N	Boulkom		X		410	17	58		17	50	89	
N	Mia (Arbole)		X		790	19	63		58	37	59	
N	Todlin	X	X		820	19	60		23	53	60	
N	Dassa	X	X		170	24	48		17	37	93	
N	Didir	X	X		460	10	65		37	48	79	
N	Bolgo		X		460	36	43			44	100	
N	Kinde		X		710	28	56		10	34	93	
N	Sigle			X	160	19	55			40	100	
N	Imassogo		X		990	20	60			75	86	
N	Nanoro		X		1130	36	48		23	50	83	
N	Pella		X		680	29	43		13	24	100	
N	Kordie		X		760	NA	NA	NA	NA	NA	NA	
N	Pilimpikou		X		680	29	44			48	100	
N	Samba		X		1080	37	41		10	46	100	
N	Kirsi		X		570	17	52		24	48	52	
N	Tindilla		X		500	22	50		10	58	70	
N	Yako	X	X	X	1040	25	36		34	41	93	
M	Bingo		X		1250	10	14		13	20	100	
M	Kokologo	X	X		1750	16	16	13	3	16	87	
M	Sakoïnse		X		1130	15	19		10	33	90	
M	Nandiala		X		690	21	50			66	93	
M	Pouñi		X		80	17	11			30	100	
M	Reo	X	X		730	19	14		10	10	100	
M	Bonyolo		X		360	22	55		13	20	100	
M	Zoula		X		20	9	9			12	100	
M	Poa	X	X		470	14	18		10	20	80	
M	Thyou		X		1970	15	16	6	20	26	57	
M	Batondo		X		580	20	22		13	30	84	
M	Kyon	X	X		580	8	31		6	13	100	
S	Fara	X	X	(X)	1720	24	12	20	20	26	73	
S	Kassou			X	640	12	21		10	46	60	
S	Kabourou			(X)	180	8	16			26	66	
S	Niego			(X)	100	5	25		4	33	76	
S	Leo	X		X	1420	30	13	13	20	13	80	

sistence crops are cereals like millet and sorghum. Cash crops include groundnuts, beans, rice

S OF PRINCIPAL MARKETS OF THE CENTER-WEST REGION, 1980

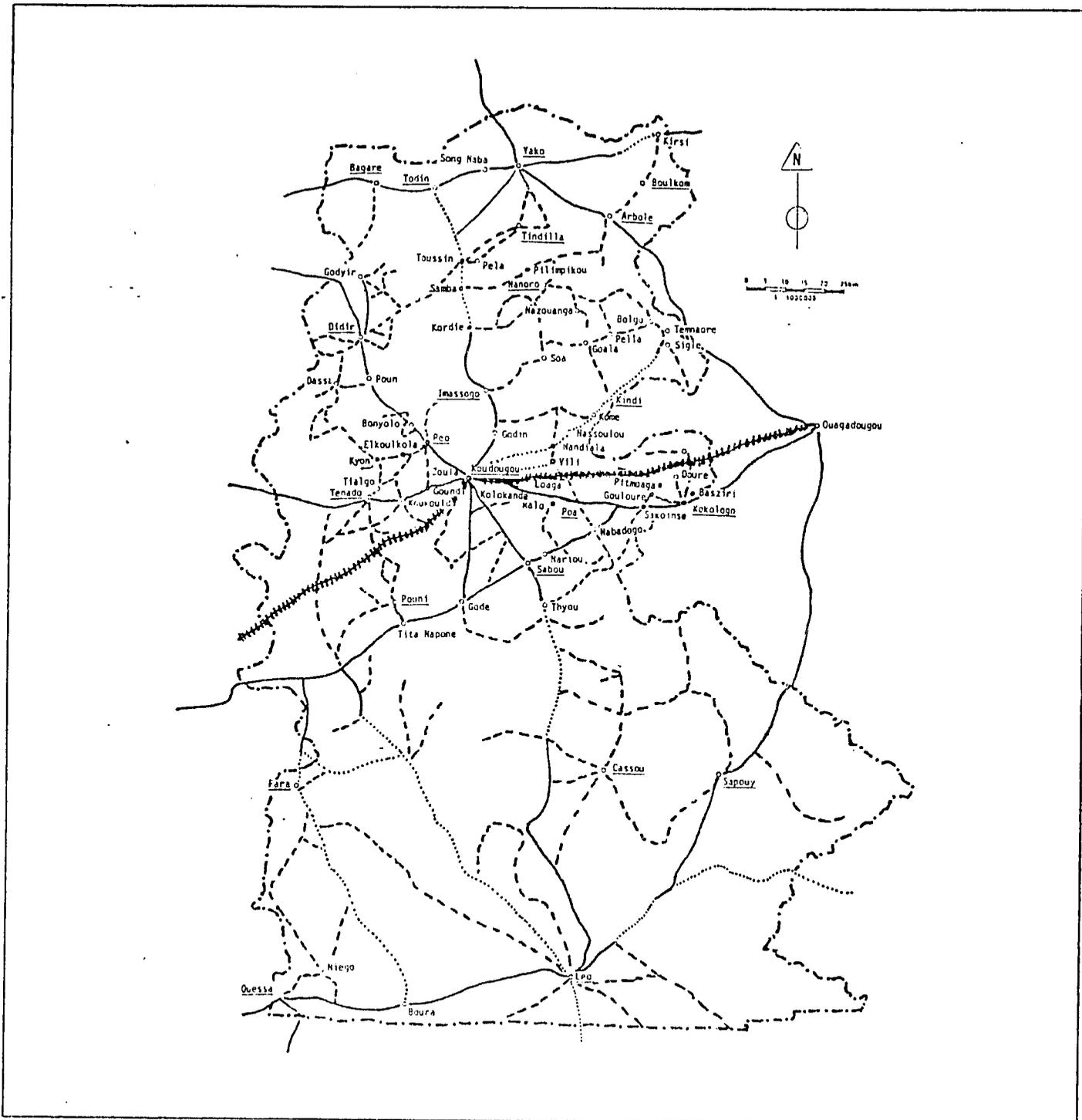
Market	From			BUYERS ARRIVING FROM (%)			RANK ORDER OF OTHER MARKETS ATTENDED BY SELLERS			
	Less Than 15km	More Than 15km	Going to Other Markets	Less Than 4km	5-10 km	More Than 10km	1	2	3	4
0	89	11	68	55	20	25	Arbole	Kirsi	Kalsaka	Niou
7	59	41	90	65	20	15	Yako	Bouikom	Niou	Kirsi
3	60	40	63	30	20	50	Yako	Toessin	Berenga	Zogo
7	93	7	52	94	6		Didir	Pouni	Zilesie	Poa
8	79	21	59	82	18		Toessin	Mousseo	Dassa	Pouni
4	100		42	88	12		Kouria	Tennaore	Sigle	Bousse
4	93	7	39	84		16	Tennaore	Pella	Sigle	Sourgou
0	100		41	88	12		Kouria	Tennaore	Bousse	Lay
5	86	14	71	78	11	11	Godin	Nandiala	Rana	Tigiala
0	83	17	60	69	19	12	Arbole	Pilimpikou	Kalwaka	Samba
4	100		17	85	10	5	Tennaore	Bolgo	Bousse	Kindi
NA	NA	NA	57	94	6		Samba	Minissia	Toessin	-
8	100		59	94		6	Samba	Ramessoum	Toessin	Gouloure
6	100		61	83	17		Kordie	Toessin	Mousseo	Pilimpikou
8	52	48	62	60	6	34	Berenga	Kalsaka	Bouikom	Arbole
8	70	30	53	78	17	11	Toessin	Yako	Bouboulou	Lantaga
1	93	7	66	63	21	16	Todin	Songnaba	Toessin	Berenga
0	100		27	63	21	16	Kokologo	Pitmoaga	Sakoïnse	Zagtouli
6	87	13	53	60	10	30	Pitmoaga	Sakoïnse	Bingo	Ouagadougou
3	90	10	56	70	30		Kokologo	Gouloure	Pitmoaga	Poa
6	93	7	68	39	22	39	Saria	Vili	Tibrala	Zisagara
30	100		55	100			Tita Napone	Valio	Laba	-
10	100		60	75		25	Koudougou	Goundi	Bonyolo	Ramongo
20	100		53	100			Reo	Kyon	Perkoun	-
12	100		93	100			Reo	Goundi	Koukouldi	-
20	80	20	50	90	10		Ramongo	Ralo	Koudougou	Sakoïnse
26	57	43	47	65		35	Koudougou	Sabou	Poa	Kokologo
30	84	16	66	50	5	45	Koukouldi	Tenado	Kyon	Goundi
13	100		33	65		35	Reo	Tenado	Koudougou	Koukouldi
26	73	27	73	30	10	60	Kabourou	Poura	Nabou	Bakolo
16	60	40	60	60	20	20	To	Leo	Pore	Lon
26	66	34	73	20	25	55	Fara	Bakolo	Nabou	Poura
13	76	24	33	60	25	15	Hamale	Kolinka	Bozo	Kolodor
13	80	20	27	35		65	Ouagadougou	To	Kassou	Fara

its, beans, rice, etc. Source: Data obtained by SAED, on contract to UFRD project.

TABLE III-6: HIERARCHY OF FUNCTIONS FOR SELECTED CENTRAL VILLAGES
CENTER-WEST REGION, 1980

CENTER	POPULATION (1975)	AGRICULTURE								HEALTH			EDUCATION		TRANSPORT & COMMUNICATION							ADMINISTRATION					TOTAL			
		GRAIN MILL	EXTENSION AGENT	GRAIN STORAGE (SILO)	ORD SUB-SECTOR	ANIMATRICE	OFNACER OFFICE	ORD SECTOR	PEANUT SHELLER	MATERNITY	DISPENSARY	PHARMACY	HOSPITAL	PRIMARY SCHOOL	CFJA	SECONDARY SCHOOL	MOTORBIKE MECHANIC	GASOLINE SALES	RAC	CAR MECHANIC	TELEPHONE	POST OFFICE	AIRFIELD	ACCOMMODATION	ARRONDISSEMENT H-Q	WATER/FOREST SERVICE		SUB-PREFECTURE	PUBLIC WORKS DEPT.	PREFECTURE
1. Koudougou	34,200	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	26	
2. Yako	9,400	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	25	
3. Leo	3,700	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	25	
4. Reo	14,800	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21	
5. Tenado	3,900	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	17	
6. Sabou	3,900	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	16	
7. Didir	6,900	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	16	
8. Kindi	8,500	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
9. Pouni	1,700	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	13	
10. Imassogo	9,400	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	13	
11. Fara	1,600	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	13	
12. Nanoro	4,700	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	12	
13. Kokologo	6,500	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	12	
14. Ouessa	1,100	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	11	
15. Arbole	1,100	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	10	
16. Bagare	1,600	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	9	
17. Sapouy	700	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	9	
18. Boulkom	3,100	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	8	
19. Kassou	1,400	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	8	
20. Bingo	1,700	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	7	
21. Poa	4,200	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	7	
22. Todin	1,600	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	6	
23. Tindilla	1,200	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	3	
TOTAL	113,000	23	20	19	18	12	9	6	5	5	21	19	7	2	22	6	3	21	20	12	6	5	4	4	3	16	9	6	2	1

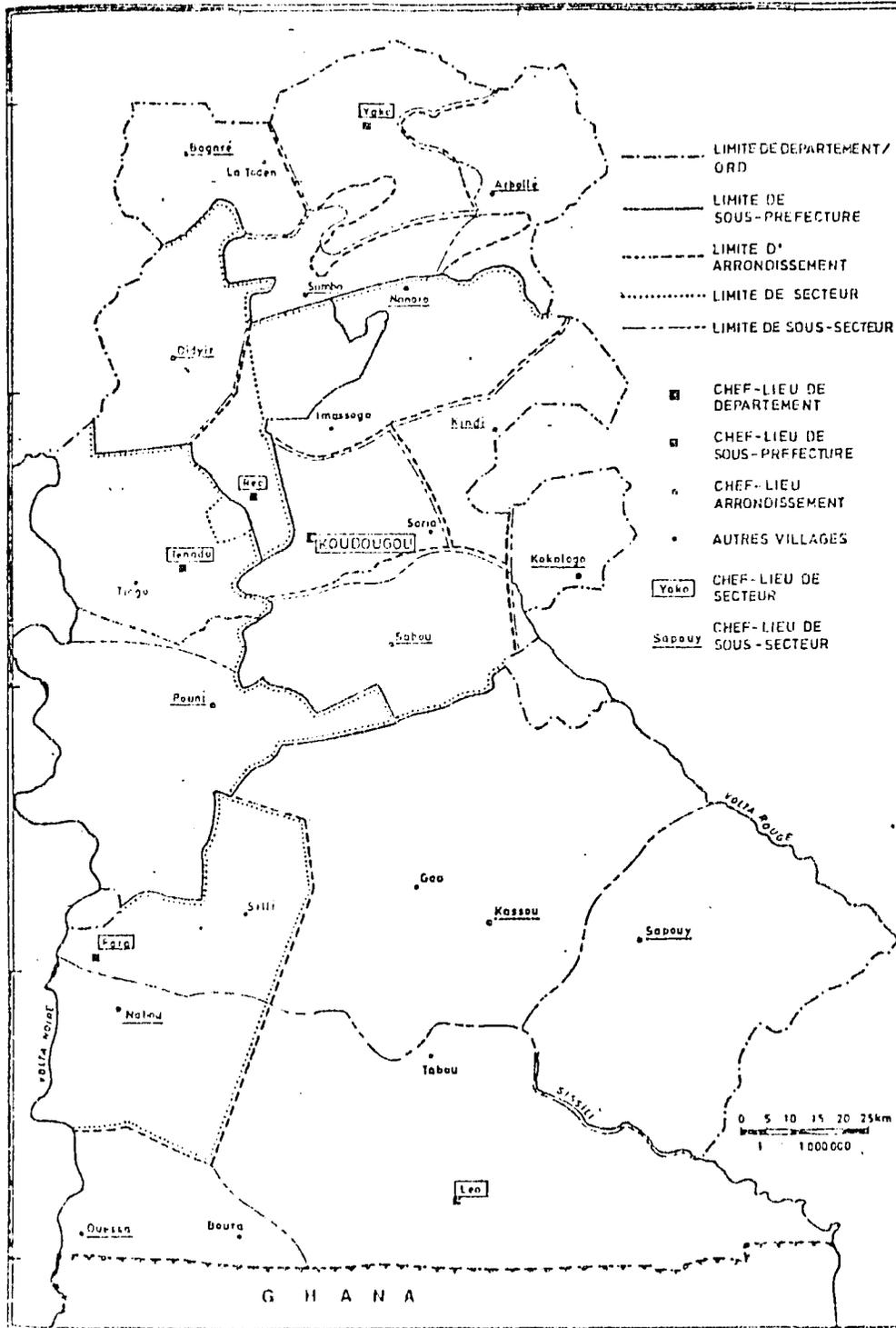
ROAD NETWORK OF THE CENTER-WEST REGION



- All-weather road (AW)
- - - - - Dry-weather road (DW)
- Motorable trails
- Limits of region
- Bilanga Principal central villages
- Yabri Other principal villages studied by UFRD project

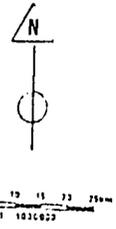
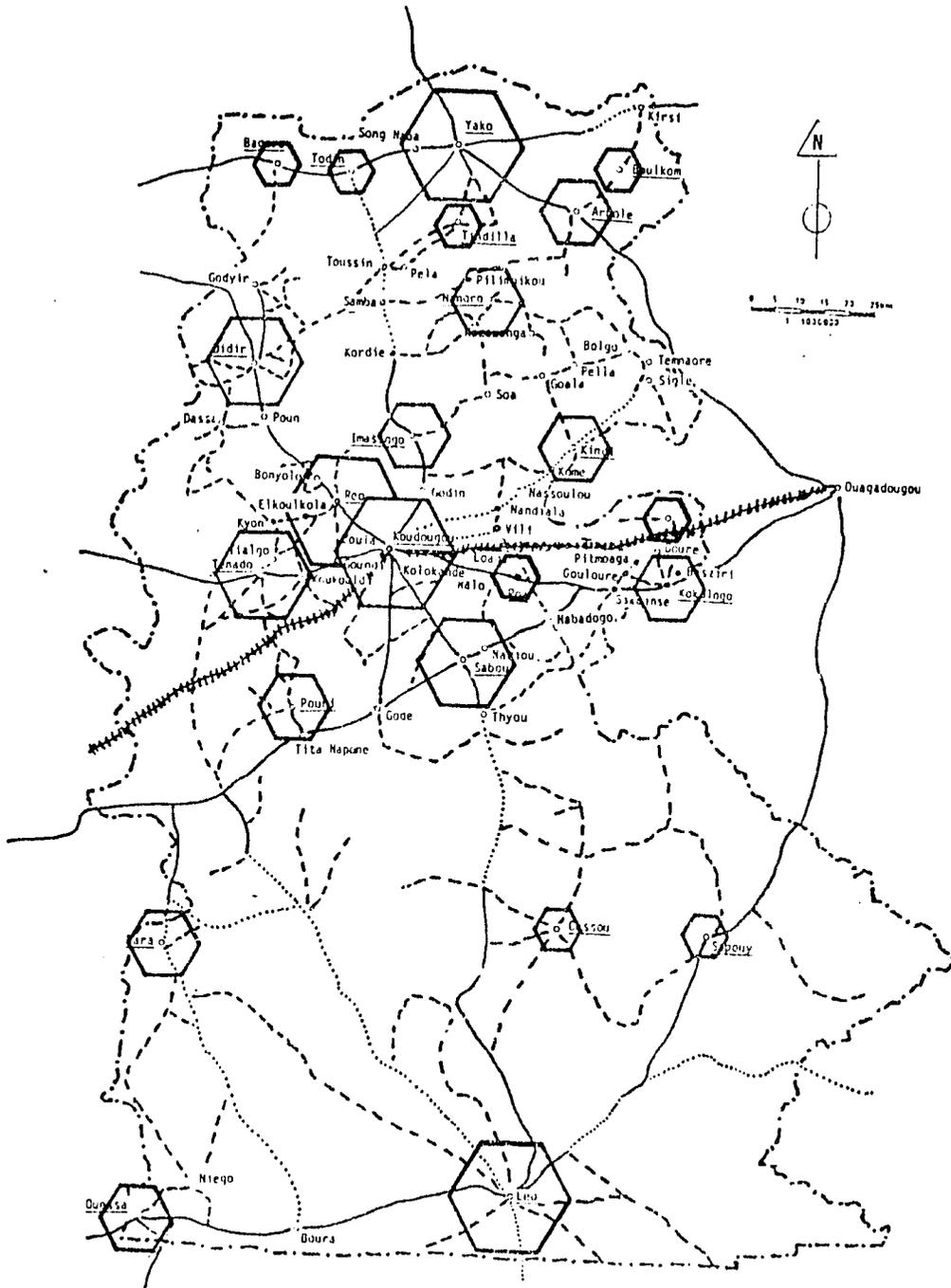
MAP 16:
ADMINISTRATIVE STRUCTURE OF THE CENTER-WEST REGION, 1978

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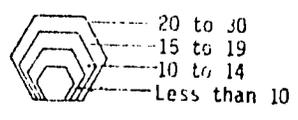
Source: Haute Volta (1979(c))

HIERARCHY OF CENTRAL VILLAGES & FUNCTIONS, CENTER-WEST REGION, 1980



- All-weather road (AW)
- - - - - Dry-weather road (DW)
- Motorable trails
- Limits of region
- Bilanga Principal central villages
- Yobri Other principal villages studied by UFRD project

Number of Central Functions



SUMMARY AND CONCLUSION

CHAPTER FOUR

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The overall purpose of the UFRD project in Upper Volta is to examine and to identify possibilities for promoting rural development by means of improving the contributions of rural market villages, service centers and central places to rural populations and to the economic activities in which they engage. To this end the UFRD project undertook to identify upwards of 50 central functions (or services provided in villages and centers) across 1,300 villages, to analyze them in some detail in 108 of the settlements, and to evaluate their performance in 44 selected central places in cooperation with informed and responsible members of local publics.

Some of the central places selected are administrative headquarters, the seats of subprefects and arrondissement heads. Some of the administrative centers are also the seats of canton chiefs, and so are most of the other selected places. As such, they are of some administrative and considerable traditional importance. A few of the places are neither subprefecture nor cantonal centers, but they have good markets, attracting attendance from other villages in their neighborhoods, and some of these have small service facilities like primary schools, dispensaries and maternity clinics, and may be regarded as "central" on that account. Amenities of this kind are to be found in a good many places which were not selected and they too are "central" from the point of view of the nearby villages which have no amenities at all. In each of the two regions, there must be at least fifty settlements which are central in one way or another. However, with one or two exceptions, in addition to Koudougou and Fada N'Gourma, the 44 selected central villages contain all the villages and towns of any significance in both of the regions studied, and the bulk of "functions" in the regions.

To provide a significant number of the remaining villages with even rudimentary services, such as a school or maternity clinic, is really out of the question. More than half of the 1,300 villages have populations of less

than 500 people. Another quarter of them have populations of less than 1,000. It is true that primary schools and dispensaries are to be found in a few of these places, usually canton headquarters, with less than 1,000 people, but it would be unrealistic to contemplate the provision of service facilities in most of them. It would be hopelessly impractical without drastic changes for the better in Upper Volta's economic circumstances to contemplate the heavy annual recurrent expenditures of staffing and supplying many more facilities than the two regions already possess. This is not to deny the need, it is merely to state the possibilities. 176

In the circumstances of the two regions, on the whole existing services are not too badly distributed in relation to the distribution of the rural population. The markets, dispensaries and maternity clinics all serve considerable areas and substantial numbers of people, even though they do not at the present time serve them particularly well. Although there are serious deficiencies in the road systems around Leo (center-west) and of most of the subprefectures of the eastern region, a reasonable proportion of villages are served by roads and tracks which are motorable in the dry season, when travel is most common, and many lie on roads which are open throughout the year. The primary schools and the Young Farmers' Training Centers, for obvious reasons, serve smaller areas and populations, catering to children who live within walking distance of them, perhaps five kilometers, and certainly not more than ten. Theoretically, at any rate on paper, the agricultural extension services of the ORDs are very well distributed, with hardly a village of any size without a regular visit, or a fairly regular visit from its ORD extension agent.

There are places in each region where special circumstances may suggest investment in new service facilities. Diembende, in the eastern region, (although as a frontier village it is anything but central in a geographical sense), may be an example because of the attraction exerted by its thriving market. Some of the cantons of the Leo subprefecture will eventually need new and additional social and economic services to respond to the needs of their growing immigrant and native populations.

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 A case could be made that, beyond the special types of circumstances mentioned, the existing spatial distribution of functions could and should be improved. However, whether one likes it or not the prudent course now is not to construct and/or equip new services in rural areas, but rather to try to improve the performance of existing ones. This is largely a matter of making better provision for their maintenance and operation, and it is partly a matter of making them accessible to greater numbers of people.

These could be tasks for the next ten years. Thereafter, if agricultural productivity has really improved, and farmers have become more prosperous as a result, it will be possible to extend services and service facilities to population centers which are now inconveniently distant from them. Counsels of patience may not, it is true, greatly appeal to people who are hungry for improvement. They should be offered, nevertheless, for rural populations will derive little benefit from services as inadequately operated as the existing ones.

In this regard, one may note that accessibility is very important. There are some services which could be carried to many of the larger settlements. Remote villagers ought not to be obliged to go in search of them at places like Koudougou and Fada N'Gourma and subprefecture headquarters, to ask for an identity card or to buy school supplies or to get dispensary prescriptions filled. There is no inherent difficulty in supplying such needs to them much nearer home. In this environment accessibility usually means mobility. The primary schools are necessarily stationary facilities, but even these can be made more accessible to more villages than they presently serve, perhaps by providing simple boarding facilities, perhaps by other expedients. The canton of Bingo sets a good example by the judicious allocation of school places to all its villages, while the canton chief and his elders exert themselves to find lodgings for pupils who cannot travel daily. This practice was not observed in any other canton. What was observed was a reluctance on the part of parents to confide their children to the care of others unless close family relationships were involved, or to incur the financial costs of lodging children in the homes of strangers.

However, other services could be much more mobile than they are. The nurse in a dispensary and the matron in a maternity clinic could pay regular visits to the larger villages in their districts, and some of them, the best, actually do often travel at their own expense. More of them would, if provided with the means of transportation--a mobylette, not a very expensive item--and the funds to purchase fuel for it. The "agents itinerants de sante," whose services are limited to a declining number of lepers, are supplied with official mobylettes, adequate quantities of fuel, and sufficient drugs for the regular treatment of all their patients. It is curious that nurses and matrons, whose attentions are demanded by far greater numbers of people, are not. Probably far more could be made of the agents itinerants, "distributors of pills" as they are commonly called. They are not men of high professional training and qualifications but they have the habit of travel. They acquire a lot of useful, practical knowledge. When not on tour they assist in the dispensaries and, on occasions during the absence of nurses, they are to be found administering and prescribing to the sick in the latter's places. With a little additional training these men could greatly extend the areas of influence and operation of the village dispensaries to which they are attached. So could the village first-aid men, the "secouristes villageois," now to be found in only a few places, like Matiacoli, in the eastern region.

More mobility is essential to the administrative services and it ought not to be necessary to recommend it. Some subprefects do travel their districts and have vehicles assigned to them for that purpose. The majority, it appears, are not in the habit of touring; possibly because the vehicles assigned to them are broken down, possibly because they are not given the funds to keep their vehicles on the road, possibly from sheer personal disinclination. Some subprefects confessed that they have not stirred from their headquarters for months, except to visit the regional capitals. Many of the services they are charged with performing, the adjudication of disputes, for example, and the issue of identity cards and other documents, can be performed better on tour in a village than they are in a headquarters office, and would be better appreciated if they were. A villager has to go to a great deal of trouble nowadays to get an identity card. A man from Poa, for instance,

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will have to make at least two journeys to his subprefect's office at Sabou, and a third journey to Koudougou in order to purchase the requisite fiscal stamp. It costs him quite a lot of his time and money. The whole business could easily be done in five minutes in the course of a monthly visit by the subprefect to Poa, and it could be done as easily, for that matter, in every other canton chief's town in the Sabou subprefecture and in many other large villages. All it takes is for the subprefect to pack some of his office records and some of his staff into the back of his pick-up truck, and drive out to meet his constituents instead of waiting for them to come to him.

In the ORDs, good sub-sector chiefs travel their sub-sectors conscientiously, and good extension agents regularly visit the villages on their rosters. Some do not, offering the excuse that travel is impossible without transportation. It is not a good excuse. An extension agent with only four or six villages in his district could easily make his way to them on foot if he had the will. The complaint is sometimes raised that the ORDs no longer give these employees salary advances for the purchase of mobylettes. They are probably wise not to do so. If foot travel is now regarded as so old-fashioned as to be degrading, then a pedal-bicycle would serve the lower grade of agricultural extension worker perfectly well.

In part, the comparative immobility of some of the rural services may be due to an attitude of mind, the feeling of the government employee that it is up to members of the general public to come to him, and that it is no part of the public servant's duty to deliver his services to the public. This is reprehensible. But it may be due in larger part to the disappearance after independence of useful facilities for travel, the village rest-houses, simple places, where an official could transact his business during the day and shelter for the night. These are all in ruins or converted to other uses even in important centers like Yako and Leo. Perhaps they were thought of as symbols of an unenlightened era where there were few roads and public servants habitually travelled on foot and needed somewhere to rest and put up for the night. It is true that these facilities were usually built by forced labor and that the visit of a colonial official may sometimes have been regarded as an imposition and a nuisance rather than as a convenience. A visit from

a public servant would not be so regarded today. There is no large village which would not cheerfully volunteer to labor to construct a rest-house, if it could be assured thereby of regular visits by its subprefect and the staff of the nearest dispensary or by anyone else capable of helping it.

In summary, the principal findings of this study are these: rural services and the facilities which support them are reasonably well-distributed, and with improvements in administrative practice they could reach or be placed within reach of a good proportion, certainly a majority, of the rural population. The services are well staffed for the most part, though there are some facilities, usually in remote and uncomfortable places like Cassou and Gayeri, which ministries find difficult to staff at all, and which are consequently without teachers or nurses or matrons, and are temporarily or permanently closed. None of the rural services are working with a reasonable degree of efficiency. This is not from any fault of the men and women who staff the services, but because the facilities they work from are in a lamentable state of disrepair and are very poorly equipped and very inadequately supplied. In the main this situation is caused by a sheer lack of public money to maintain, equip and supply them. The burden of maintaining and operating rural services falls principally upon a number of central government agencies, none of which commands the resources to repair the deficiencies. The communities, though they willingly contribute to the construction of facilities they value, do little after construction is completed, except for some perfunctory work on rural roads, and the useful contributions of the Parent's Associations to the upkeep of the primary schools. There is little prospect that the central government will be able to find the means to finance the rural services properly. In fact, as new facilities are constructed year by year, its limited resources are spread more thinly year by year, and the situation is steadily deteriorating rather than improving. Such as they are, the rural services are not reaching and affecting as many people outside the central villages as they might.

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In this context there are two kinds of approaches which present themselves as means to upgrade and improve the services or functions provided in central places. The first, assuming the availability of international assistance funds, is simply to put everything that is already on the ground into decent and working order. This would amount to several hundred little jobs, aimed in the main, at repairing the damage to facilities caused by a generation of neglect and poverty. It would take two or three years to accomplish. It is superfluous to try to establish priorities, for each central place is in the same need as the others, and each job is as important as the rest. It is extremely difficult to estimate the costs. New school furniture alone would cost from \$2,000 to \$3,000 in each primary school. But generally we are talking of works which will cost anything from \$10,000 to \$15,000 in each of the selected centers, and of a program which could be accomplished comfortably, therefore, within a million dollars. It would certainly be useful. It would bring most of the rural service facilities in the two regions up to standard. It would be highly encouraging to the communities concerned. It would provide employment, for a time, for local trained artisans, and would help to keep them within the regions. It would certainly improve the efficiency of the existing services, at least in the short term.

Doing this sort of thing everywhere would also be a completely indiscriminating use of money. It would have no lasting effects on the rural areas. The schools, dispensaries and maternity clinics would present a better appearance for a few years, but they would still be short of supplies, and they would not be regularly maintained. Within five or ten years all would be to do again; and the rural populations would remain in the same state of dependence on their government and on foreign aid as they are now. They will like this sort of program, but it might not really get them anywhere.

The second course of action which suggests itself is to concentrate assistance and expenditures on a few places in each region which select themselves. They would select themselves by demonstrating their readiness to accept responsibility for the upkeep and supply of their own service facilities. Not many will volunteer for the burden of local finance at the start, at the most

two or three cantons in each region. Whichever cantons do decide to accept responsibility for their own services, then a substantial measure of capital assistance can be justified. One should contemplate the complete restoration and renewal of all existing facilities and their equipment; the construction of new ones, where facilities are lacking, dispensary buildings (at Biogo and Diapangou, for instance), canton offices, rest-houses, and the expansion of three-classroom schools into full six-classroom schools permitting the canton to cater to a fresh intake of students every year; lodgings of decent, not luxurious, quality for all the public servants assigned to the center; the installation of regular weekly mail services to all the canton's principal villages; village granaries, with grain buying programs controlled and managed by local people; if the cooperation of the ORDs can be obtained, some special consideration in the allocation of agricultural credits, with candidates for loans selected by their local authorities and guaranteed by them; some recreational facilities, including a mobile library--there are literate people everywhere now, but there is nothing whatever for them to read; and equipment for the canton's Young Farmers' Training Center. Considerable programs of rural road development and village water supplies development might be undertaken. Not all this can or should be done at once. It can and should be done over three or four years, depending on the canton's capacity for local finance and prudent management of its affairs.

Such a program, in a limited number of cantons, would not be very expensive. It could be accomplished in as many as half a dozen within a total outlay of some \$300,000 to \$400,00. It would be of lasting effect in the cantons affected. And it would provide a convincing example of what people can do for themselves, which other cantons, in the fullness of time, might wish to follow. Essentially this is a matter of providing for the efficient operation of services and facilities through institutions of local governance.

RECOMMENDATIONS¹

CHAPTER FIVE

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The concept of improving the level of services provided in central places through efforts at strengthening, formally or informally, local institutions of governance is not new. Indeed, local responsibility for the operation of local services, whether part of a national "system" or not, is a taken-for-granted state of affairs in rich countries. Historically, and to a large extent today, it is also a perfectly understandable theory and practice in many parts of Africa. In both rich and poor countries it is a practice which works, and which works so well that it is rarely noticed. This is not the case, however, in Upper Volta today.²

The underlying problem with respect to the functions provided in central places as has been repeated often enough, is limited financial resources in both the private and public sectors. For service provision at the local level, however, the public sector is often more limited than the private; as has been shown in several instances where local community contributions to service operations exceed those made available by the government.

Nevertheless, at present the principal financial burden of supporting local services falls upon the central government. One of its less significant but nonetheless important sources of revenue is the head tax, which was levied at a rate of Fr. CFA 540 per able-bodied citizen in 1979, having been reduced from Fr. CFA 640 in 1978. The reduction was popular, though it may not be thought well-advised. Of the 1979 tax, Fr. CFA 300 was attributed to the Ministry of Finance and Fr. CFA 240 to the treasuries of the prefectures in which it was collected. Judging from the returns of the Center region, disclosed in the prefect's report towards the end of 1979, the head tax is probably under-collected.

1/ For a fuller description of the recommendations see Mead (1980(b)).

2/ Southall (1978)

Through the Ministries, the central government meets the salary costs of all established civil servants, including administrative officers, teachers, midwives and nurses serving in the rural areas, and of all those serving--some may think in excessive numbers--in the relatively expensive ministerial offices in Ouagadougou. Government is the only important non-agricultural source of employment in Upper Volta, and it is politically impossible for the Administration to reduce the swollen establishments of its offices in the capital, or to refuse to accede, at least in fairly liberal measure, to its employees' regular demands for improvements in their conditions of employment. The cost of government, and of all the paraphernalia of modern government, has been an extremely heavy burden for the poor countries since Independence. 186

After government has met its payroll it has very little left over to meet any other operating expenses. When revenue falls short of expectations and estimates, as it inevitably does, it is the allocations for operating expenses that suffer, not the payroll. Every increase in salaries, though it may be well-deserved, implies a reduction in the money available to buy supplies for rural primary schools and dispensaries. There are no new sources of revenue in sight.

The same is true of the situation of the prefectures. Their treasuries were set up in 1974 to replace the more local, though not by any means autonomous, "collectivités rurales," based on the areas of the sub-prefectures and arrondissements. Since that reform the prefectures have assumed the responsibility of paying the salaries and wages of lower grades of government workers, secretarial staff, the skilled laborers in the dispensaries, the matrons in the maternity clinics and the artisans employed for maintenance work in some, but by no means all, of the subprefectures. Again, after payment of salaries and wages there is very little left; and there is the strange situation that although carpenters and masons are employed and regularly paid, they are for the most part idle since there is no money to buy them the wood and cement and other materials needed to keep them busy. Regular annual allocations for the upkeep of public buildings appear in the prefectural budgets; but when there are shortfalls of revenue, very little of this materializes and reaches the subprefects.

Apart from their share of the head tax, hardly any revenue accrues to the prefecture treasuries. They collect the daily fees paid by sellers in the rural markets which amount, in the center-west, to an estimated \$15,000 to \$20,000 a year, and the annual license fees paid by regular traders in the markets, which will hardly amount to as much. There is very little else. It is not within the means of the prefectures to do more than they already do to keep the rural services in operation.

187 Under such circumstances, it is not altogether surprising that local communities often attempt to compensate for the shortfalls of public resources, especially in efforts which are perceived to be of priority collective interest. Community labor is thus often volunteered freely and cheerfully for the construction of such things as dispensaries or maternity clinics. Nothing however, is offered by the rural communities to provide for the upkeep and operation of the facilities once construction is finished. Select groups of people within the communities, those with a particular interest in them, people with children in the schools, for example, are more generous in their support. Members of Parents' Associations subscribe liberally, in amounts often equal to or even exceeding their taxes to make good the deficiencies resulting from strained ministerial budgets, though their fellow villagers without children in the schools obviously do not. Generally, communities which labor to construct the buildings for a school, dispensary or maternity clinic recognize no responsibility for the resulting recurrent costs of it. If asked to whom a particular school, dispensary or clinic belongs, the villager will almost certainly reply, "The Government!" and is most unlikely to say, "To us." Once the building is up and opened, rural communities appear to believe that payment of their taxes absolves them from all further responsibility, and operation and maintenance are the Administration's business. This habit of mind may have been encouraged by the well-intentioned, though rash, promises of services after Independence. It may equally be a legacy of the attitudes which prevailed in colonial times. Whatever its origins, it needs to be changed.

It needs to be changed because it is inherently difficult for a central and highly centralized administration to ensure the efficient operation of local services to populations living in small settlements scattered over vast areas. It may

be assumed that the administration of Upper Volta has the will to provide effective basic services to the rural people. It can be taken for granted that it does not have the means. Even with the means, and with ample management capacity, the task would be a most formidable one. In all developed countries, local services have been assured primarily by the existence of governance capabilities at the local level.

The notion of local governance is not completely strange or new to Upper Volta. The principle, at least, has been recognized in the "collectivités rurales" until 1974, and in the continuing existence of "communes" at Reo, Yako and Fada N'Gourma. Certainly the pre-colonial organization of the Mossi and Gourma kingdoms were evidence of a traditional interest in forms of governance which had effective central and local components.¹ Still, it may in the short-term be unwise to recommend the creation of formal "local government" structures and, indeed, is not absolutely necessary. Parents' Associations in the primary schools perform remarkably efficiently, though they have no legal powers to exact contributions from their members. Respected chiefs do persuade their people to work on the roads, though they have no power to punish those who refuse to do so. Provided the right kind of community is chosen for a demonstration of local governance, the force of public opinion may be found to be every bit as powerful as the force of law.

The right kind of community to start in will, inevitably, be the canton. The subprefectures and arrondissements, except for one or two which consist of single cantons, are generally too large to command spontaneous local loyalties. The subprefect, regrettably, is rarely long enough at his post for him to become familiar with its people, or for them to become familiar with him. Moreover, the jurisdiction of a local authority ought not to be identical with that of a division of the central government, for that would lead to confusion of the functions of both. The village, on the other hand, does command spontaneous local loyalties, very strong ones. There are central villages or towns in the two regions, Koudougou, Yako, Reo and Fada N'Gourma, obviously, but also Villy, Nandiala, Kindi and Imassogho, whose populations are approaching

1/ Hemmings-Gapihan (1980)

the level at which they could sustain financially autonomous local government; but the vast majority of the villages of Upper Volta, all those which are not canton headquarters or "central" for any other reason, are simply too small to be able to afford services of their own, and it would be wrong to encourage them to believe that by making financial contributions they will soon be able to.

The choice, therefore, falls upon the canton. There are 39 cantons in the center west and 22 in the eastern region. They vary enormously in area and population-- anything from 50,000 to 3,000 or 4,000 people, and anything from 5,000 to 400 square kilometers. Whatever the size or importance of a particular canton, it will have a recognizable identity, well-founded in history and tradition. The cantons are the basic territorial units for the central government's tax collections. Every canton has an acknowledged head, the canton chief, often a man who commands great respect and wields such influence that it is indistinguishable from power; though sometimes it is a man who does not or is so old and decrepit as to wield none at all. Whatever their leadership, the cantons retain their traditional sense of cohesion and are the largest territorial units in which a majority of people will recognize each other and each other's families as kin, and will feel reasonably well at home. The canton already has the beginnings of an administration, in the canton chief, the village chiefs, and in the person of the canton secretary. The latter, normally a local man, may not always be the ideal choice for the position. All the same, more often than not he is found to be well-informed about the canton, quite responsible and sufficiently capable to be easily trainable in the conduct of local business. It is to be noted that the canton is usually identical with an ORD sub-sector. However, the canton's main advantage as a local governance unit is that its people are accustomed to acting together in the common interest. When a decision is taken by a clear majority in a canton, it is likely to be accepted by the rest and to become unanimous.

It is impossible to contemplate the development of local governance everywhere in the two regions at once. It will not be accepted everywhere, and it could not be done. The appropriate objective for the first few years will be to

furnish good examples, and it will take a little time for the examples to prove themselves. There may be in each region a few cantons with the qualifications to set good examples to the others. These are the cantons in which good, persuasive leadership can be identified, whether it resides in the chiefs or in others. They will have sufficiently large populations to command sufficient resources to do something with. They will be places which are recognized as progressive, and have already established a record of self-help. Since, in the early years, local authorities will need a friendly and constant eye kept on them, it will be convenient to select cantons whose principal villages are located on good roads. Yet it would be an error to make the last an absolute condition, ruling out places which otherwise lend themselves well to the experiment, simply because of present, not insuperable, difficulties in reaching them. Indeed, it may well be that the best candidates will be found among the most deprived.

From the extensive fieldwork and innumerable contacts with local populations undertaken in the course of the UFRD project, several cantons appear to present themselves as reasonable candidates for a demonstration of the potential (and doubtless the pitfalls) of initiating a local governance capability. In the eastern region these are:

- Diapangou, a canton of about 10,000 people, whose principal village is on National Route 4 about 25 kilometers west of Fada N'Gourma. This appears to be a well-organized and ably led community which has already done a great deal for itself with the construction of a fairly good dam and a maternity clinic. It has collected Fr. CFA 500,000 towards the Fr. 2,000,000 estimated cost (allowing for free labor), of a dispensary building. During visits to Diapangou the thought was advanced that only regularly paid contributions could assure the efficient operation of such a facility. The proposal was not turned down out of hand. The chief and his elders admitted it has a possibility and said they would think about it.
- Coalla, a much larger canton with more than 50,000 people, is remote and inaccessible to motor traffic for a considerable part of the year. It is ruled by an aged, highly-respected and altogether formidable canton chief. Its services have been badly neglected, but some improvements have been accomplished in Coalla as a result of his leadership and the strenuous communal efforts inspired by it. Under the canton's present leadership these efforts are likely to continue, and might be translated quite smoothly into payment of regular local contributions. The canton has public facilities at Coalla and Liptougou, and an important market at Mani. All suffer from lack of maintenance and lack of equipment and supplies.

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- Bilanga, which many will consider a curious choice, for it is right in the center of the region and is accessible only in the best of weather, and then with difficulty. It will become more accessible within a few years when the road from Fada N'Gourma, for which USAID funding has been promised, will be built. The opening of a good road, indeed, even the promise of a good road, will be a powerful incentive to the people of Bilanga to do something for themselves. This is potentially a productive area, which already produces surpluses of food crops which it cannot market. It has a primary school, dispensary and maternity clinic, the school being unusual because it is the only one in either region which makes any effort to support itself. The village of Bilanga is, moreover, the natural service center for the very small neighboring canton of Bilanga Yanga, now completely neglected and too small to support a local authority of its own. Bilanga Yanga might be persuaded to join in, and it would make good sense for it to do so if it can be done without its traditional independent identity.

In the center-west region, the places which seem to select themselves are:

- Poa, with a population of about 24,000 grouped into only seven villages, all of them quite substantial, with the central place and one other large village situated on the main road from Ouagadougou to Koudougou. The other five villages can all be reached by car or truck for at least the greater part of the year. The canton is vigorously and competently led by its Chief, a former public servant. In the village of Poa itself there are the usual canton services, a primary school, a dispensary, and a maternity clinic. The canton has made commendable efforts to provide buildings for these facilities and decent lodgings for their staffs, but the older buildings display the usual deficiencies of maintenance. All the facilities are ill-equipped and ill-supplied, and therefore render less in the way of services than they might. Three other villages have Young Farmers' Training Centers, housed, in one case, at Gogo, in a very poor building of temporary construction, though a decent lodging is being built for the Animatrice at the cost and by the efforts of the people of the village.
- Nanoro, is a larger canton with about 30,000 people. The canton chief is able and influential in central government circles as well as local ones, and has a great deal of valuable administrative experience. The canton has performed prodigious works on the construction of new roads, and keeps the roads it has built in remarkably good order. It has the usual public service facilities, and there is a dispensary, maternity clinic and school in at least one other village in addition to Nanoro itself. It has available to it, or rather would have if it had the money, the skilled maintenance workers of a religious mission. The canton has an ambition. Since the roads to Koudougou are not always motorable, it wishes to improve to all-weather standards the track which links its principal villages with the national road between Yako and Ouagadougou.

- Bingo is rather a small canton and has approximately 11,000 inhabitants in some ten or eleven villages. The canton chief's village and a few other places are accessible throughout the year by a good local road, well-maintained by the communities served. The canton chief is an ORD extension agent. One of the attractions of Bingo is its judicious allocation of places in the Bingo primary school to children from all the canton's villages, creating a wider interest in the school than is to be found in most cantons. Bingo has provided itself with a small, but very poorly equipped maternity clinic, but does not have, and earnestly desires, a dispensary. Its people appear to be a go-ahead lot, and would probably pay regularly to get one.
- Boura, in the sub-prefecture of Leo is quite a small canton, with less than 10,000 inhabitants, and might be regarded as an unusual choice. It is remote but not isolated, for both Boura and another significant place, Bozo, are on the all-weather road between Leo and Ouessa. The primary school, the dispensary and the maternity clinic at Boura are all in a lamentable state of disrepair; but the Bozo primary school is new, an excellent building, worthy of regular maintenance before it too falls into disrepair. Boura has some attractions for the protagonists of local governance: first, a venerable but lively and highly respected canton chief; and second, the interest of ADES, the Association for the Economic and Social Development of the sub-prefecture of Leo, a public-spirited and influential organization which could be counted upon, in the hope of setting an example to other cantons, to put itself squarely behind the development of local governance in Boura.

The foregoing list is not exclusive, it is presented rather as a list of places with people worth talking to. Most of the cantons named may reject the proposition, but the hope is that in each region there will be one or two willing to give it a try. One or two will be quite enough at the start. Perhaps all of the cantons named will reject it. Recourse in that event would be to allow more time and go on talking. This is not the kind of program which lends itself to a rigid schedule of achievement.

In the process of talking, innumerable questions are likely to be asked. Three important ones are likely to be:

- What arrangements are to be made for the safekeeping of money, who is to have physical custody of it, and who will decide what to spend it on?

- If a canton agrees to pay local "taxes" for the support of local services, what help may it expect to receive from the government and from the international aid agencies? and
- Will local "taxes," which may well start at modest and acceptable levels, Fr. CFA 50, 100 or 200, later be increased to levels which the population cannot support?

The answer to the first can only be that the arrangements generally shall be whatever the people of the canton think best. Uniformity between all the cantons is not essential and is not even desirable. It does not greatly matter how the governing body of a local authority is composed, nor whether it is to be elected or appointed, as long as it consists of men in whom the people have confidence. If a particular canton wants to have elections, then it should have them; though it is worth noting that election by acclamation is as honest and democratic a process in rural West Africa as election by the ballot box, and it is infinitely cheaper, simpler and quicker. Probably, however, in most of the cantons people will opt to leave the management of their affairs where it already is, in the hands of the canton and village chiefs.

All a new local authority will need in the way of administrative staff is a treasurer and a clerk. The canton chief, though he may very suitably preside over the authority in at least many cases, ought not also to be the treasurer. The treasurer's position is not a difficult one (it is largely a matter of holding the key of the safe), but it is responsible and exposed, and some good men may wish to think twice before accepting it. While it should not be necessary to pay salaries to the canton and village chiefs, it is necessary to pay an honorarium to the treasurer. There will be no shortage of substantial and respected men to fill the post; but when the nomination is made by a council of chiefs it would be prudent to ascertain if the appointment has general public support.

If the canton secretary is reasonably competent and stands well in public opinion, then he will be the obvious choice for local authority clerk; but if he is not and does not, then the questioners should be invited to propose other candidates for training. The chances are that they will prefer to leave this invidious choice to the chiefs. They can be told that an office will be built, and a

safe and books of account supplied; that the canton's cash will remain in the canton, (in these days that may mean employing a watchman as well as buying a safe), unless there are strong feelings in favor of keeping it elsewhere; that the clerk's books and the treasurer's cash will be audited frequently, and sometimes by surprise; and that care will be taken to ensure that all disbursements are in accordance with the budget approved by the authority's council in public session at the beginning of the year. The treasurer, even if he is illiterate, will be able to keep these simple budgets in his head. In the early years there will not be a great number of expenditure items. There may be only one, for proceeds will be low, and the natural impulse of people will be to allocate them to a single and specific purpose.

Villages may suggest something more or something different. Unless their proposals are blatantly unreasonable they should be accepted. People will be more inclined to support a system in part, at least of their own devising.

The second question is much more difficult. A kind of bargaining is inevitable in discussions of this kind. The payment of "taxes" is always necessary but never popular, and the prospective payers will be looking for something in return. They will expect some promises.

Obviously what the government cannot do, and perhaps what it can, can only be suggested. There is no possibility whatever that central government or prefecture treasuries will be able to forego any part of the head taxes that presently accrue to them. They simply cannot afford to do so. Both prefectures and ministries are hard pressed and would probably prefer to see the head tax restored to the 1978 level, Fr. CFA 640, from the Fr. CFA 540 at which it now stands. The most the government could offer would be to try to keep central "taxes" at their present levels, at least in any canton which undertakes the support of its own services. An opportunity was lost when the tax was reduced by 100 Francs. The government would have done better to have kept the tax at the original figure, and to have remitted Fr. 100 to the cantons or sub-prefectures for local purposes. But the cantons did not, at that time, possess the machinery to make good use of the monies they would have gained thereby.

95 On the other hand, the prefectures might be induced to part with the daily market fees that now accrue to them, keeping for themselves only the annual license fees paid by professional traders. The prefecture treasuries would lose little by this, for the daily market fees do not provide much revenue to them. The yield, after meeting the costs of collection, must be insignificant. More would be collected, and at a lower cost, if the markets were under local administration.

The government can offer something else which the villagers may value more, a little mobility in some of its own services. The sub-prefect, though there are honorable exceptions, is usually a stationary official sitting in his office and waiting for business to come to him. He ought to be peripatetic, out on his rounds, looking for business. Some of the services he provides, the issue of identity cards is the outstanding example, could be provided better and far more conveniently to the general public in central villages than they are in a subprefecture office. Wherever a canton may decide to establish a local authority and pay "taxes" for the upkeep of its services, there are at least a few things the central government can offer in return at minimal cost to itself. These may include:

- A regular monthly visit by the sub-prefect or chef d'arrondissement. It will be necessary because these are the men who ought to audit local accounts. They should take their office staffs and their records with them so that they can receive applications for identity cards and other documents and issue them on the spot. This simple facility would be enormously appreciated.
- The establishment of a postal agency, where stamps can be bought and letters mailed and received is another possibility. The costs of the agency would be borne by the canton. They will not amount to much, for the canton office will provide the premises and the canton secretary will do the work.
- The re-establishment of the canton's rest-house, so that the sub-prefect and other government officials have somewhere to stay and do their work when they visit the canton is yet a third possibility.
- Also the guarantee of staff when the canton constructs an educational or health facility, provides reasonably good lodgings, and undertakes the maintenance and operational costs would be useful.

In return there is something a local authority can do for the government. It can undertake on behalf of the government and against reimbursement, the prompt and regular payment of the salaries of the central government officials assigned to the canton. Teachers and other staff in the rural areas, paid by check in places where there are no banking services, and where there are unlikely ever to be any, now have to wait a month or longer to receive what is due them. A well-managed local authority with cash on the spot would be a convenience to everybody.

What international assistance organizations might wish to answer is also as nebulous an area of projection as was the foregoing concerning the government. Nevertheless, some ideas present themselves. One is that wherever communities demonstrate their readiness to provide for the maintenance and operation of services, international aid agencies might help to get them on their feet, giving them the means to get the existing facilities into good order again and meeting the capital costs of any new facilities required. Diapangou canton may be taken as an example. One would like to be able to say that it will not be necessary for its people to continue with the slow collection of another Fr. CFA 1,500,000 for the construction of its dispensary building, that sort of money can easily be found; but that it will be necessary for its people to pay at least Fr. CFA 100 a year to keep their dispensary supplied with drugs and decently equipped.

The answer to the third question is that no guarantees can be given except that an increase, at least the local component, is not a matter for decision by anyone except the community itself. Diapangou may well decide on a "tax" on the purchase of drugs but it is better to let Diapangou find this out for itself. In the following year, there may be voices raised in favor of increasing the provision for the dispensary, and other voices raised in favor of doing something for the primary school, or the maternity clinic, or a local road, or a well. That is exactly the way the process ought to work; and when that point is reached, it will be possible to draft and discuss a "budget" in some detail.

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This proposal for local governance may appear to be an extremely modest start and, of course, it is intentionally so. Within a year or two of successful experience in two or three cantons, other cantons may present themselves as willing subjects. There may be many who will assert that local governance is simply not practicable in Upper Volta, and that the thing simply will not work. Indeed, it might not, but there really is only one way to find out if it will or will not, and that is by trying. The UFRD project team members believe that with an appropriate and sensitive approach, local governance is perfectly practical. In the final analysis there is at present no other viable solution to the existing problems of maintaining services in rural areas. Moreover, the plausibility of the proposed solution rests on the incontrovertible empirical fact that it is something which has been done before in neighboring countries, and which has been in fact the manner by which Upper Volta was organized in its past.¹

^{1/} See Mead (1980(b)) for an illustration of implementation in neighboring countries.

POSTSCRIPT

CHAPTER SIX

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As indicated at the very outset of this report, the UFRD project experienced considerable delay in getting underway, particularly in regard to obtaining the services of a U.S. contractor. As a result, by the time the project assistance completion date of March 31, 1980 arrived, the technical work of the project had received an investment of only a portion of the total number of man-months originally identified in the ProAg. In addition, the original delay had caused an unexpended balance of project funds of the order of \$125,000. During the period, February to June 1980, consideration was given to the possibility of extending the project to make up for the late start. The intent was to use an additional year for the purposes of completing and integrating the technical activities specified in the ProAg, further refining and designing a program proposal of the kind outlined in the previous chapter, and submitting this last to USAID and other donor agencies, as well as to responsible authorities of the government for consideration of support.

As it happened, the project was not extended. Whatever merits of this decision may have been, it was nevertheless unfortunate because certain opportunities for linking the efforts of the UFRD project and its team members with subsequent efforts in other actual and proposed projects of a similar nature were preempted.

Two projects in particular, which respond to USAID/Ouagadougou concerns regarding the recurrent cost problems of the country, stand out in this regard.¹ The first of these, scheduled to get underway in early 1981, is a Local Revenue Administration (LRA) project to be undertaken jointly by Syracuse University

¹/ USAID (1981)

and the Ecole Nationale d'Administration (L'ENA) organized through AID's Office of Rural Development and Development Administration (DS/RAD). Its purposes are to examine:

- The magnitude and characteristics of locally provided public services and public service needs;
- Local sources of public revenues and the allocation of such revenues among local and central authorities;
- Financing of recurrent costs and project cost recovery;
- Interest in and opportunities for collectively providing and financing services through user charges, voluntary associations, and other non-tax mechanisms within local areas (villages and cantons); and
- Methods of restructuring ongoing and proposed activities so as to reduce their recurrent costs.¹

Although this project is limited to a "study," it should be evident that there is a clear replication of several aspects of the UFRD effort. Informal contact was established between the UFRD project director and representative of Syracuse University in February 1981, in Washington, D.C. Although programmed for implementation through another agency of the government, L'ENA, it is hoped that once in the field the LRA project team will collaborate with UFRD team members in order to avoid needless duplication of effort, and perhaps also to move away from the habit of "studies" and towards more tangible "action." In any case, the LRA project team had already made extensive use of UFRD project findings.

The second project which relates to the local governance dimension of the UFRD effort, though more indirectly, is a proposed Rural Development project for the East GRD to be jointly financed by FIDA, the UNDP, the CCCE and USAID.² Within the total cost estimate of US \$28 million, there is a Village Development Fund (VDF) component of about US \$1.1 million. About half is proposed

1/ USAID (1980)

2/ FAO (1980)

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for use as a small enterprise credit fund to support establishment and/or expansion of village-level economic services (e.g., blacksmiths, mills, ovens, etc.). The other half is destined for use as grants for the construction of community services such as maternities, dispensaries, wells, silos, etc. The objective of the VDF component, to be financed entirely by USAID, is to promote an integrated form of community development. In the longer term the explicit objective is to promote management and organizational capacity at the village level so that dependency on outside assistance is reduced, while local capacity is increased. The choice of villages to receive the benefits of the VDF is left open for the moment, but apparently will depend to a large extent on the degree to which villages organize themselves for this purpose. Training, presumably for the purposes of improving local and entrepreneurial management capacity, is an integral part of this project component.

By virtue of its focus on capital grants and loans, this component apparently draws from a different tradition of experience than that implicit in the UFRD proposal described earlier. There is nevertheless an expressed concern with cultivating a local governance capability in a few places, and it is in this dimension that the VDF and UFRD objectives coincide. If the proposed project is approved, field operations may be expected to begin in 1982 or 1983. At that time, if not earlier, it may prove very fruitful to consider integration into the project, or at least establishment of some form of close cooperation with, the members of the UFRD project team still present in the Ministry of Rural Development. To this end the UFRD project director was informed, in Washington, D.C., of the existence of the VDF component in order that he might establish contacts in this matter with USAID/Ouagadougou.

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ANNEX A

213 The UFRD project, as defined in Section 2.1 and Annex 1 of the ProAg, was to consist of the provision of technical assistance to the staff of the Agricultural Planning Cell of the Ministry of Rural Development, and to the staff of the participating Regional Development Organizations (ORD's) of the Ministry at Koudougou and Fada N'Gourma. It was intended that the technical assistance provided under the project would be used to train existing ministerial personnel in planning methods for urban-rural development. The planning methods would be developed through a series of urban functions studies and the practical application of integrated urban-rural planning methods. The project was to produce a practical development plan for strengthening the contributions of urban centers to rural development in the respective ORD's; and was to include a list of future project priorities which, based on project findings, were determined to be appropriate for strengthening urban functions in rural development.

Extracting from the foregoing, the project had four explicit and interrelated objectives. These were:

- To carry out urban functions studies of the centers in the Fada (eastern) and Koudougou (center-west) ORD's.
- To develop a plan for strengthening the contributions of urban centers to rural development.
- To include in this development plan a list of future project priorities which, based on project findings, are determined to be appropriate for strengthening urban facilities and services in rural development; these projects may include the upgrading or strengthening of existing facilities and services as well as the initiation of new ones.
- To increase the capacities of the Ministry of Rural Development the Agriculture Planning Cell and Koudougou and Fada ORD's in the planning methodologies and processes of urban/rural development.

- In addition to setting out the objectives, the ProAg (Article D, Annex 1) suggested a set of technical undertakings in order to assist the project team in getting started. These suggested tasks included:

- Inventory to be taken in each of the centers, exclusive of villages and hamlets, in order to determine the nature and extent of the services and functions it provides. 24
- Centers in each ORD will be classified by locally meaningful functional definitions such as hamlets, villages, market towns, service centers and secondary cities. This typology will conform to function rather than size.
- Links between urban centers in the ORD and between these centers and external centers (i.e., Ouagadougou or Naimey) will be identified. This analysis includes physical linkages (roads, rails, and ecological interactions), economic linkages (capital and goods flows, marketing, production interdependencies, etc.), service delivery linkages (transportation, health, education and training, credit and financial networks, telecommunications, power, and professional or technical services), political or administrative linkages (budget flows, inter-jurisdictional transactions, etc.), and social linkages (visiting patterns, kinship patterns, etc.). These linkages will be reduced to a system of overlays to create a structural overview of the ORD.
- To complete the picture, the area of influence of each urban center will be determined (e.g., by extent of market reach or other locally meaningful measures) and reduced to an overlay.
- Agricultural activity and potential of the region will be assessed (much of this information should be available from existing sources).
- Using the foregoing as baseline data, an analysis of urban-rural linkages critical to the support of rural and agricultural development in the ORD will be performed. This may be done by consulting existing models and by interviewing officials, technicians, extension workers and farmers in the ORD.
- By comparing the model thus developed with the existing structure of the region derived from the previous steps, weaknesses and gaps existing in urban services to rural development will be identified.
- These deficiencies will be translated into projects and programs which are given rough screening for economic feasibility.
- The resulting projects are to be put into the context of a planning framework for the ORD's by which the relative priority and timing for each project or category of projects can be estimated. The product of this step will be a development plan for the ORDs.
- An evaluation system will be developed for project monitoring and implementing the results of the project.

At the very outset the UFRD project team undertook efforts to meet the first objective by attempting, as far as feasible, to complete the suggested tasks described above; particularly the first five tasks. This involved a sequence of steps which began with identification of 1,300 villages in both regions and then preparation of urban functions scalograms for 108 of the places on the basis of village questionnaire surveys in the field.

215 Reasonably accurate information was provided by the questionnaires concerning the most important of the existing services in the rural areas: the dispensaries and maternity clinics; the primary schools; central government administrative services; commercial establishments, including markets, shops, bars, and the availability of fuel supplies; and such development activities as Young Farmers' Training Centers and Village Farm Groups. The questionnaires also provided facts on railroads, airfields, and postal and telephone services; and on economic activities other than agriculture (e.g., the occurrence of traditional craftsmen like weavers, potters and blacksmiths, and of some modern craftsmen like carpenters, furnituremakers, and bicycle and motorcycle repairmen). The existence of missions, churches, chapels, and mosques was noted too.

The questionnaires provided less accurate information on the adequacy of road transportation services and of village water supplies, unavoidably, since these are sometimes as much matters of opinion as of fact. They provided no information on the availability of certain skills important to rural development, those of masons, small building contractors, and professional metalworkers (as opposed to the traditional blacksmiths) and hangers. Similarly, they provided no information on the availability of agricultural services. Fortunately, these gaps could be later filled by use of secondary data sources, particularly from surveys undertaken in the eastern region by the Fada ORD, with assistance from the MSU project team.

It should be noted that the questionnaires revealed nothing about the quality and efficiency of services in the rural areas, or about the state of the facilities which provide them, or about the adequacy of their staffing, equipment and supplies. The questionnaires revealed merely their numbers and locations.

It became clear at this stage that not even the most rudimentary of services could be installed in every one of the more than 1,300 villages of the two regions. It would be a formidable undertaking to create effective services at a limited number of central places, market towns, canton headquarters, whatever they may be called, within reasonable reach of even a majority of the rural population.

With this in mind, 22 places (or, in some cases, areas) were selected for more searching investigations in the center-west region, and 22 in the east. The selection was not an arbitrary one. In the center-west eight centers appeared to select themselves simply because, after eliminating functions of purely local significance, they already accommodated at least 20 functions which served not only their own inhabitants but also those of other villages in their vicinities. Fourteen other places, each accommodating from 15 to 19 such functions were next considered, and the five most important of them were retained for detailed investigation. The unsuccessful candidates from this group were reconsidered, together with a dozen other places, (or areas, offering more than one center to choose from), selected for a whole variety of reasons: some simply because of their large populations or of large populations in the areas they commanded; some because of their geographical situation and comparative isolation; some, like Poa and Bingo, because of the encouraging evidence found in them of community enterprise and initiative; and others because of indications of unusual potential suggesting future growth.

A similar process of selection was followed in the eastern region; but here it started with the identification of places possessing fewer functions than in the center-west. This reflected the comparative underdevelopment of the former.

In each of the selected central places in the two regions the physical facilities serving the rural population were inspected together with the roads leading to those of them which are off the beaten track. In each there were quite extensive discussions with civil servants, canton and village chiefs and with private citizens, in which the problems of maintaining and operating these facilities were addressed. Occasionally, when the opportunity appeared, possible solutions to some of the problems were suggested and the reactions to them, favorable or

adverse, were noted. Normally, correspondents were invited to state their own views of the priorities for rural development. Sometimes project staff were asked, or found it expedient, to visit other places dependent on these centers. Thus, Goden was seen in connection with the visits to Sabou; Saa and Zekemzougou were visited from Bingo, and Loaga, Ralo, and Gogo from Poa. During a visit to Arbolle, the people of Mia came along and insisted, quite correctly, on an inspection of their village pond, which they wish to enlarge. In the eastern region, staff learned a lot about sensible, economical construction methods from a visit to the Redemptorist Mission's catechists training center at Namongou. The project staff did not number the people it talked to; perhaps it is somewhere between 1,000 and 1,500.

For almost all of the 44 selected centers a brief monograph was prepared describing what was seen and heard, and the project team's general impression of each place. Some centers presented interesting peculiarities and these were noted. In general, however, the conditions of central place functions were found to be similar in all villages. A summary of these monographs is attached in Annexes B and C.

As a separate endeavor, a sub-contract was let to SAED for the undertaking of a general survey of 34 major markets in the center-west region and 27 in the east.

The process of indepth discussions with a great number of people in the selected centers, as well as elsewhere (essentially representing an implicit form of local participation in project development), led the team to broaden its original orientation, as suggested in the ProAg, and to encompass the suggestions put forward by the inhabitants of the two regions. The problem of village functions appeared to be an extreme paucity of resources, basically material but to some extent human, to sustain the level of services already provided by existing functions.

The major concerns expressed in almost all of the communities, can be summarized as follows:

- Most of the villages want better water supplies than they now have: not necessarily piped water or standpipes in every quarter, but good wells and bore-holes which will yield throughout the year, or dams and reservoirs which will retain enough water in the dry season to keep them going. This, of course, is a general need in all the rural areas, not one that is peculiar to the forty or so places treated as "centers."
- Many of them, situated on what are now only dry-season roads, want all-weather connections with their regional centers and other places, in order to market their surpluses and receive their supplies. This does not mean arterial highways with black-top surfaces. It means mostly the provision of well-constructed bridges and causeways at the stream crossings, and embankments in the low-lying places. Given these, a resolute truck driver would not be deterred by most of the existing rural roads.
- All of them would opt for basic medical facilities. By this they usually imply the dispensaries and maternity clinics they have already (in some places, certainly, there are additions to be made), but, unlike their present facilities, well-equipped and well-supplied and well-maintained.
- All of them would also opt for full six-classroom primary schools, properly equipped, again, and maintained and supplied. Places with only three classrooms naturally want to expand in order to accommodate a fresh intake every year. Experts may have their doubts about the economic benefits of primary education in present circumstances in Upper Volta. But the fact remains that it is, and will always remain, a very high priority for the rural people.
- Rural communities would probably like, though they did not always spontaneously say so, effective agricultural extension services, easier access to credit for the purchase of agricultural equipment and inputs, and simple, local and locally-managed marketing and storage facilities.
- They would also like some simple postal facilities: nothing complicated, not telephones nor telegraph services, at least not yet, but just the means of receiving and mailing letters at a convenient center. This is not very difficult to organize and not at all expensive to supply.
- If they have markets, they would like to improve them by constructing well-built permanent sheds to attract buyers and sellers, with privately-owned crop-processing facilities in the environs, corn-mills, rice-hullers, oil extraction presses. Most of them have something of this sort already, but few have enough.

Therefore, in responding to the second objective of the UFRD project, i.e., "strengthening the contributions of urban centers to rural development," the team began to design a program for upgrading existing functions in physical and

operational terms; through creation of local governance capabilities. The rationale for this was clear. There was little point to proposing new functions or capital improvements to existing ones until a process could be established for strengthening the maintenance and operational effectiveness of what already in place in the two regions. Thus the priority recommendations which were put forward, as described generally in Chapter Five of this report, addressed the issue of establishing the required "process" for upgrading existing urban functions. This was the manner by which the third objective of the project was broached by the UFRD team.

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ANNEX B: MONOGRAPHS OF THE CENTRAL VILLAGES OF THE EASTERN REGION¹

¹ For the purposes of brevity most of the original monographs prepared by the UFRD project have been edited. A lesser degree of such editing has been applied to the monographs of Kantchari, Diapaga, Botou, Diabo, Tangaye and Diapangou in order to illustrate the content of the originals.

1. Kantchari

Kantchari, with a population of about 2,800 (1975) is the central village of a large canton containing 17,3000 people. It is also the seat of the sub-prefect responsible for the cantons of Kantchari and Botou, to the east. Corresponding to its administrative role, the village contains several kinds of services beyond the very basic ones.

The first of these is the sub-prefectural facility itself. It is an old run-down structure dating from colonial times which serves the sub-prefect, a secretary, an office of Etat Civil, a military officer and the tax collector. Other than the sub-prefect, these government employees rent local housing at about 2500 CFA per month. There is a relatively-new Customs Stations and a police station in good condition. The newest structure is a Post Office containing a staff of three which provide postal and money orders and service telephone and telegraph users. There are also two small government rest-houses.

For the maintenance of these and other public facilities there is a skilled mason on the payroll of the sub-prefect, but since there are no funds to buy cement he does no work. The 10% of the Departmental share of head taxes which comes to the sub-prefecture only just cover the requirements for salaries.

An officer of the Department of Water and Forests also resides in Kantchari, but is provided neither house, nor office, nor equipment, nor fuel for his mobyette, nor any staff. A one-man operation, he is supposed to cover an area of 5,000 sq. kms. and provide a reforestation service, a fishing control service at the Boudieri reservoir, a hunting control service, a forest cutting control service, an advisory service for tourists and a wildlife management service.

The primary school is a six classroom establishment originally built in 1952 as a Catholic Mission School which the State took over in 1970. It is in reasonably good condition. There are six teachers and 240 pupils, but no school supplies. Parents that can, supply their children. Parents that cannot, do not. There is no garden and no school canteen. Supplies received from U.S. Catholic Relief are taken home by students. One of 24 graduating students was admitted to secondary school.

The structure which housed the government school before 1970 now houses the ORD store in one room, and the dispensary and maternity in another. The latter are in extremely poor shape and are not used very much; the activity being taken up largely by the sisters of nearby Catholic Mission.

The village is an ORD sector headquarters for the sub-sectors of Kantchari and Botou. In the former subsector there are eight extension agents in addition to the sub-sector director, and a rural health animator. Between them they serve 32 villages. The director of the sector is supported by an intendant, an animal health officer, a

statistician and a credit-cooperative officer. According to the director, plough-farming is making progress in the area, with 120 farmers already adopting the technique. Development of valley bottoms is just beginning, with a rice project at Gangana near Botou; and there appear to be many potentially good sites for expansion of such efforts.

A major complaint of the government people encountered at Kantchari, besides the financial limitations placed on their day-time activities, was that there was little to do besides drink in their spare time.

2. Diapaga

Diapaga is one of the most important places in the eastern region. It is the seat of the sub-prefecture, an ORD sector and an ORD subsector. With a population of 5,300, it is also the central village of the Bizougou canton containing some 22,100 people (1975). The village is located about 210 km. by road east of Fada. Vehicle access from the north is possible by an all-weather road from Kantchari. Two roads connect to it from the south. The one from Namonou is more or less an all-weather track. The one from Tansarga is strictly a dry-season proposition.

The primary school, containing 380 students in six classes, is spread over three buildings built in 1933, 1962 and 1963. It serves Diapaga and the village of Mangou, nine km. to the east. The buildings are in good condition, and there is an outside canteen. There is also the usual shortage of equipment and materials. The Parents Association is gathering up about 225 CFA per year per child to buy wood and nails for furniture repair. The services of the sub-prefect's carpenter is to be provided free of charge for this purpose.

There is a "medical center" in Diapaga, and is essentially a larger-scale version of the usual types of dispensaries and maternities found in central villages. It is the central point of distribution of supplies to the health facilities of Botou, Kantchari, Mahadaga, Tambaga and Logobou. The buildings date from colonial times and are, like their equipment, in poor condition. The staff consists of three nurses, two mid-wives, two matrons, a laborer and a laboratory technician; and they treat some 300 - 400 patients a day. There is a small pick-up truck provided by UNICEF which provides ambulance service.

Two kilometers away is a brand new structure erected by the Association of Evangelical Churches which is to serve as a new medical center. It has no furniture or equipment and so is not yet operational. No explanation has been given as to why the furnishings of the old facility are not moved into the new.

The ORD sector covers the subsectors of Diapaga (including the villages of Diapaga, Mangou, Kogoli, Tansarga, Tambaga, Yobri, and Yerini), Partiaga (including the villages of Partiaga, Namonou, Popomou, Bomentti, Gangalenti, Nadiabou and Fatouti), and Logobou (including the

villages of Logobou, Nagare, Mahadaga, Kündi-Kombou, Bodiaga and Kodjari). In addition to the 20 extension agents in the villages noted, 7 agents are attached to an irrigation project at the Tapoa dam, and two others are attached to valley land development schemes at Kodjari, Kabouri and Kwakuli. At the sector headquarters there are a livestock agent, a statistician and a superintendent. The sector does have a proper warehouse and a store is planned for construction.

The sector contains 35 village groups for men and 11 for women, each containing 7 - 13 members. Less interested in collective production, these groups are guided in the use of valley bottomlands. Plough-farming has not taken hold yet, but there has been some success with improved varieties of corn and groundnuts.

Diapaga is the base for a credit operation financed by AID and implemented by Partnership for Productivity. It is separate from the usual ORD lending operation, and apparently has been relatively successful in terms of impact and repayment.

Expressed development priorities here were all-year water supply, roads

3. Bogande

No monograph prepared

4. Matiacoli

Matiacoli, with a population of 2,700 (1975) is the central village of a canton with the same name containing 13,800 people. It is on the Fada-Niamey highway and is an ORD sector headquarters.

The school, the only one in the canton, has 135 students in three classrooms. It is in relatively good condition, as is its equipment. The dispensary and maternity, also the only ones in the canton, treat 100 cases a month. The facilities were built around 1959, but together with the school were upgraded in 1977 with the help of Freres des Hommes. They are staffed by a nurse, a matron, a woman's animator and a first-aid worker. This last is a volunteer who lives in Boulgou, 30 km. to the northwest. He was trained by the nurse at the request of his village and links it to the dispensary by transporting and administering drugs in Boulgou, and by transporting the ill to the dispensary.

The sector covers the subsectors of Matiacoli, Ougarou and Gayeri and contains eight extension agents, the sector director, a superintendent, a statistician and a credit-cooperative agent. Cooperative production of millet and sorghum has had a good start in the canton, as has the practice of plough-farming.

5. Pama

Pama, situated 120 km. south of Fada, is the seat of the sub-prefecture and an ORD sector headquarters. Its population is about 2,200 (1975) and is the central village of a canton containing 11,100 people.

Vehicle access is possible along the Fada-Benin road, or along a road leading from Namonou to the east. Both roads are useable in the dry season only, and traffic is correspondingly light. The town and canton are thus quite isolated and this is reflected in the price of non-local commodities; as shown by petrol prices which are the highest in the region.

The dispensary and maternity occupy a part of a cultural center dating from colonial times, and which has never received basic maintenance. It serves the canton and that of adjoining Madjoari, treating 100 cases a day. Supplies are very short, and prescriptions are filled by those who can afford to pay in a town 85 km. to the south, in Benin. The staff consist of a nurse, an assistant nurse, a public health worker, a skilled laborer and two matrons. A new but small maternity has been constructed and some of the facilities of the old will be transferred there. The village also has a hotel and a rest-house to service visitors to nearby game reserves.

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With respect to this last there are three agents of the Department of Water and Forests in Pama, assisted by five guide-guards. Their activities revolve entirely around control of hunting and fishing (along the Pendjari and Sougou rivers); although management of brush fires has become important.

6. Mahadaga

See monograph of Namonou, below

7. Namonou (including Mahadaga and Logobou)

Namonou has a population of 4,800 (1975) and is the central village of Gobnangou canton (pop. 44,400). It is part of the ORD subsector of Partiaga, described above in the description of Diapaga, and has one extension agent. The canton contains 25 villages, of which the largest 10 (Namonou Mahadaga, Logobou, Tansarga, Pentinga, Tambaga, Yobri, Kodjari, Namponkore and Nagare) contain 80% of the canton's population. The village is accessed on an all-weather road from Diapaga to the north, and a dry-season road to the south. It is a very fast-growing place, the population estimated to have increased to 8,000 by 1979.

Namonou, Mahadaga, Logobou, Tambaga and Tansarga have elementary schools. The first four also have dispensaries and maternities of the usual types. A Young Farmer's Training Center at Nagare is one of the few in the region that is operational. It has 50 pupils, but no plough-teams with which to provide training in this method. Namonou and Mahadaga each have a pharmacy. Note may be taken of a phosphate deposit at Kodjari where material is extracted and transported to Diapaga. The project, funded with bilateral German assistance, produces 1,500 tons a year. All in all, the canton is a relatively well-endowed area.

The Namonou primary school was built in 1957 and serves 140 students in three classrooms. The facility is in extremely poor condition. The furnishings are better than average, 17 tables and chairs having been obtained in 1975 through a collection of 48,000 CFA by the Parents Association. A carpenter in Namonou built them. Besides six boxes

of chalk, the school has no educational equipment, no well, no canteen, and no football.

The dispensary, built in 1958, is quite large and, having been repaired in 1978 by the Freres des Hommes, is in respectable physical condition. The maternity is similar. These facilities are staffed by a nurse, a health officer, a technician, four general workers, a retired soldier who sterilizes equipment, a matron, a mid-wife and a women's animator. Because of its size the facility is designated as a medical center and serves a very wide area, including Pama, 40 km. to the west. During the busy rainy season the facility services 60 - 100 cases a day. Supplies are in chronic shortage.

A critical problem in this canton is that the bluff of Gobnangou separates its northern and southern portions, and effectively isolates the latter's towns of Kodjari, Mahadaga, Logobou, Nagare and Diabondi from the rest; making access to services quite difficult during rains. It is understood, however, that AID is considering finance of a road across the bluff.

8. Piela

No monograph prepared.

9. Botou

Botou, with a population of 2,000 is the central village of a canton with the same name covering about 1,750 km² and containing some 13,000 people (1975) in 18 villages. The more important of these last being Peuhl, Mandiari, Pori, Koyenga, Boulel and Kogori. Botou is also a sub-sector seat.

The town is located along an all-weather road, 60 km. to the east of Kantchari, which receives irregular maintenance from local village groups in the dry season. The road continues eastward to Boulel and the Niger border, where it runs into another road leading to Niamey. This other road is impassable during rains and international traffic does not pass through the town.

The school, containing three classrooms housing 135 students was built in 1959 and has apparently received no maintenance since then. The school has very little furniture or equipment; and no garden, canteen, latrine or well. Corn flour and powdered milk obtained from Cathwell are distributed to students to take home. However, the supplies are obtained by the sending of someone to get them in Ouagadougou, the commercial cost of transport being prohibitive. At one time, Freres des Hommes apparently promised to line a school well if the villagers dug it, but cancelled the project even though the required hole was dug.

The parents association raised 8,000 CFA to buy a football for the school but it tore apart after six days of use.

The dispensary is in relatively good condition, as is the maternity clinic immediately next to it. Reportedly these two service about 140 people a day. There are, however, as usual, great shortages of drugs

and basic equipment. In extreme cases ambulance service can be had for transport to the hospital at Fada. This involves sending someone on bicycle to the Post Office at Kantchari to cable the medical center at Diapaga which has an ambulance. If the vehicle is not otherwise occupied (it serves 100,000 people), a patient can be gotten to Fada in 18 hours. If otherwise occupied, the transport may not be available for five or six days. A payment of 10,600 CFA is required in advance to the dispensary nurse before the ambulance can be called for.

The director of the ORD subsector lives in Koyenga, 30 km. west of Botou because he cannot obtain lodgings in the latter. He has six extension agents, including a rice specialist, each looking after three or four villages. There is also a women's animator in the village.

One priority project identified was the construction of a dispensary at Pori. It is a village about 10 km. south of Botou, but across the Dyamongou river which is impassable during rains. At such times the closest service is effectively at Diapaga, 65 km. south.

10. Logobou

See monograph for Namonou, above.

11. Diabo

Diabo is a small village containing 1,200 people (1975), but is the central village of a relatively dense canton containing about 24,800 inhabitants. It is also the headquarters for an ORD sector and subsector and is located 55 km. west of Fada; four km. south of the Fada-Ouagadougou highway on a dry season road.

The three classroom primary school, staffed with six teachers, contains about 510 students. The facilities, built in 1952 by missionaries, has received little or no maintenance work. By regional standards of comparison it is in very poor condition, and its equipment is equally poor. Educational material is almost entirely dependent on what parents can provide for their children. The school canteen was abandoned for lack of funds to pay for cooks and cooking utensils. Notwithstanding these limitations, the Diabo school has one of the highest rates of successful examination passes in the region.

The dispensary and maternity were provided by the White Fathers. The facilities are the largest in the sector, but are nevertheless poorly equipped and supplied relative to the demands placed on them by an average of 250 patients a day. The staff consists of a nurse, a public health worker, a laboratory technician, two mid-wives and a woman's animator provided by Freres des Hommes who works with the mid-wives. The facilities have a wide area of influence, drawing patients from as far away as Kouin Yinga and Koupela which lie outside the canton.

The OPD sector, containing the subsectors of Diabo and Tibga, is composed of a director, a livestock agent, a statistician, a superintendent and a credit and cooperation agent who resides in Lantago. At present the storage of cereals, sold by OFNACER (National Cereals Office), was a room at a local mission. A new storehouse

for the sector is under construction, however.

At the subsector level, there are about 10 extension agents, plus the subsector director, stationed in Tangaye, Saltenga, Lantago, Kampiogate, Koulpissi, Siega, Bolgatenga, Lorogo, Koulwoko, Yantenga and Diabo. Two animators, at Tangaye and Siega, work with women's groups.

There is a Young Farmer's Training Center at Diabo, as well as two others at Saltenga and Koulpissi, but they do not function. The teachers currently work as extension agents.

The agricultural development possibilities of the canton appear excellent, and plough-farming has taken hold (100 - 150 farmers use the method). Vegetable gardening was suggested as a viable proposition if water retention structures were built to provide irrigation possibilities in the drier periods.

12. Yamba

Yamba has about 1,400 people (1975) and is the central village of its canton containing about 9,200 in 29 villages. It is about 47 km. north of Fada, and vehicle access from the Fada-Bogande road is very difficult in the rainy season.

A school was built in 1973, but having one teacher, only one of its three classes is in use. Earlier there were about 60 students in the class, but now only 30. An apparent major problem for both students and the teacher is that housing is unavailable for rent at Yamba. The 30 students who left were from outside the village, and the teacher lives in one of the unused classes. There is no canteen at the school. In addition, to supply educational materials, parents are asked to contribute 1,000 CFA a year to the school.

The dispensary, which receives about 40 visitors a day, is in good condition. Supplies are meagre, and are supplemented by apparently useless pharmaceutical samples delivered through Catholic Relief Services (Cathwell). The maternity is in poor condition, and for lack of basic equipment very few women choose to use it.

Although extension work has resulted in the crude beginnings of plough-farming, actual progress has been very slow. Very little production surplus was obtained during the year throughout the canton.

13. Comin Yanga

Comin Yanga is the central place of a relatively small canton containing 15,000 people, of which the town itself houses about 3,600. The town is also the seat of the sub-prefect.

Vehicle access is possible in the dry season from the northeast along a direct road from Fada. The surface of the road is good, but the absence of bridges, causeways or culverts in about 40 places makes rainy season passage impossible. There seems to be on-again off-again maintenance and construction on the road, provided by the Ministry of Public Works through the Service d'Entretien des Routes Secondaires.

At the time of the project team's visit to Comin Yanga, in November 1979, it was learned that USAID had apparently decided to finance construction of a new all-weather road from Diabo, to the north of the town, thus connecting it directly with the Fada-Ouagadougou road. The road to Yonde, heading south from Comin Yanga peters out rapidly before reaching the former, which is unfortunate since a short link would be possible from Comin Yanga to Ouargaye, which sits astride an all-weather road to Tenkodogo, Koupela and on to Ouagadougou.

The primary school with three classrooms was built in 1958, together with quarters for a headmaster. The structure is in average condition for the region, as is its equipment and materials. It contains about 210 students, with recruitment taking place every other year. Less than half of all applicants are actually admitted in each period. The parents, through their association, contribute 500 CFA per child of which 400 CFA is used to provide chalk, slates, pencils, etc., with the balance being reserved for feeding Comin Yanga candidates sitting for the secondary school entrance examination at Fada, and for the transportation of Cathwell supplies from Ouagadougou. The supplies are taken home by students because the school has no canteen. Teachers indicated a desire to develop a school garden, seed supplies being apparently available through the ORD, but the cost of tools was apparently prohibitive.

Of the 36 graduates of the school, only one was admitted to a secondary facility. Twelve stayed on for a seventh year in order to try again. A rural school, or Young Farmer Training Center, does exist at Yonde in a neighboring canton. It is, however, unpopular because it is deemed exploitative of students, poorly organized and under-equipped; thus apparently providing little or no useful education. The teachers suggested that it would be a good idea to integrate primary and rural schools so that they both provide a combination of agricultural and academic subjects.

The town also has a dispensary and maternity clinic, and discussion of these did not highlight extraordinary problems. Priority project ideas voiced in the town included deepening of some wells, provision of school furniture and a school kitchen, and restoration of the classroom building.

14. Bilanga

Bilanga has a population of 2,000 people and is the central place of its canton. The population of the latter is about 25,800 (1975), distributed over 41 villages; the more important of which are Dipienga, Balga, Moaka, Bilamperga and Tabon. The services of Bilanga also serve the neighboring canton and village of Bilanga-Yanga, 13 km. to the south. Bilanga is the seat of the subsector for the two cantons, and is located 75 km. north of Fada, along the dry-weather Fada-Bogande-Koalla road.

The dispensary, built in 1966, is large and in relatively good condition. Handling approximately 50 to 70 new cases each day, it is staffed by a nurse, an assistant nurse and a public health worker. Its supplies,

like everywhere else, are very limited. There is a small pharmacy in the town for those that can afford to pay for their own drugs.

There is a relatively new maternity, but a quasi-total absence of equipment and supplies has caused most women to go to Piela, or to stay at home. The mid-wife therefore serves as animator and translator at the dispensary.

The subsector director has no office or storehouse and uses a house built by a Peace Corps volunteer. Working for him are one statistician, five permanent extension agents residing in four surrounding towns as well as Bilanga, and three temporary agents charged with land improvement around the dams of Bilanga and Bilanga-Yanga. Thus far 21 hectares have been brought under irrigation by the 104 members of the local village group. In addition, there are 50 plough-farmers in the area.

A special feature in Bilanga is that three artisans, trained in the Centre d'Artisanat at Ouagadougou, live in the village. One is an engine mechanic, the second a carpenter and the third a blacksmith who makes chinese-type hoes for rice cropping and sells them at 200 CFA each. None of these artisans receive much in the way of orders, nor do they have adequate stocks of tools or raw materials.

Besides the school at Bilanga, there is a Young Farmer's Training Center in nearby Bilanga-Yanga. There is a teacher there, but no pupils.

A voiced priority in the canton is the need for road improvements to link Bilanga better with its surrounding villages.

15. Soudougui

Soudougui, with a 1975 population of 2,200, is the central village of a canton with the same name containing 14,800 people. It is near to Diembend (see below) and suffers from the same degree of isolation as the latter village.

The primary school was built in 1965 and has three classrooms, and reflects the general state of despair witnessed elsewhere in the region. Its furnishings are notable by their absence; there being 10 desks for 155 students, and all of which were purchased by parents, together with educational materials, in Dapango (Togo). There is a functioning canteen which uses Cathwell supplies.

There is a dispensary built in 1975 with the help of Freres des Hommes which contains three rooms, one of them housing a maternity. Both health services are provided by a nurse and a laborer. The equipment and supplies contained in it are almost the poorest in the region. Thus serious cases are referred to Dapango for treatment.

The ORD subsector facility is in equally poor condition. It contains no agricultural inputs at all, and hence extension services rendered are of a theoretical rather than practical nature. Thus this area is one of the least-developed in the entire region.

16. Tibga

Tibga contains 3,000 (1975) inhabitants and is the central village of a canton with the same name having 13,800 people. It is a subsector headquarters and is located 40 km. west of Fada, 7 km. north of the Fada-Ouagadougou road. There is a school, in very poor condition, not having been maintained since 1957, and a facility housing both dispensary and maternity.

The subsector is the only one in the region with a tree nursery, but lack of tools, equipment, staff and water have limited its effectiveness. Plough-farming has made a beginning in the area, and a local blacksmith received training in Ouagadougou in order to build and repair the new implements. A constraint in this area appears to be very poor soil quality.

Development project priorities expressed by the cantonal chief were: enlargement of the health facilities and their satisfactory provision, extension of plough-farming, deepening of wells, construction of schools elsewhere in the canton to avoid long walking distances and the provision of school canteen facilities.

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17. Coalla (including Liptougou)

Coalla, with a population of 7,700 in 1975, and Liptougou with a population of 53,000, are the principal villages of a heavily populated canton (Coalla) containing some 54,000 inhabitants. Located on the northern extremity of the region, the canton is difficult to access during the dry season, and impossible during the rainy season; irrespective of whether one attempts a journey from Bogande to the south or from Kaya to the west.

Notwithstanding this isolation (or perhaps as a result of it) the inhabitants of Koalla and Liptougou are among the most active and dynamic in the entire region in terms of community initiative. Under direction of their respective chiefs the communities have built Arrondissement facilities (Coalla), a maternity, housing for a matron and a public health worker, a school kitchen and a small dam at Koulkida. The physical and operational characteristics of these are not fundamentally different than elsewhere in the region, but the mechanisms under which they were brought into existence, in the greater scheme of things, was remarkable.

18. Tangaye

Tangaye is a large village in the canton of Diabo (see above), and contains about 2,400 people (1975) of the Zaousse ethnic group. The village would not be noticeable except for the prestige it has acquired for being the site of an experimental solar energy plant provided by the U.S. National Aeronautics and Space Administration (NASA), which sits along the Fada-Ouagadougou road, about 45 km. west of the former.

Other than the plant, which powers a well pump and a grain mill, there are very few services at Tangaye. Those that do exist are an ORD extension worker, a Young Farmer Training Center (CFJA) and an ORD woman's animator.

The CFJA center is now inactive, never having had more than four students at any given time. The one-room structure is used to store fertilizer. As in other places the center is unpopular, the explanation being expressed as resentment at having to buy special clothing for pupils, the loss to the family of farm labor time, distaste of families at seeing their own members working someone else's farm, and lack of equipment upon graduation with which what had been learned could be applied on family farms. Graduates had had no choice but to go back to the traditional hoe.

The ORD extension worker did not appear to know much about the area he was working in, or the farmers he was presumably there to assist. The village chief suggested that the advice provided by the worker was good, but that farmers had no way to put the advice into effect. For existing plough farmers, the ORD found it difficult to supply spare parts. For those wishing to purchase ploughs, a credit of 70 or 90,000 CFA is required. There is available for new loans in Tangaye the amount repaid on previous loans during the year. This comes to about 300,000 CFA, and so only three or four farmers can adopt the technique in any given year.

The women's animator is supposed to work with eight women's groups, but only one, containing 21 members, is active. In the last harvest their efforts produced two bags of soya beans and five "tinnes" of groundnuts; which were then mostly sold to purchase millet. In addition, the animator pays home visits to families and provides guidance in hygiene, child-care and nutrition.

The village chief's interests were not with these things, however. He wants a dispensary and then a primary school, both of which services are currently rendered at Diabo, 10 km. away. According to the chief, only two families in Tangaye send their children to that school, and hence very few of the young in the village obtain any form of formal education.

Because of the proximity of Diabo and Tibga, there is no particular reason to retain Tangaye as a special center for servicing a large surrounding region. It could, however, profitably acquire facilities and equipment to complement the efforts of the CFJA schoolmaster, the extension worker and the animator. Once the activities of these people become more effectively deployed, and backed by credit, it may become possible to increase agricultural income to a point where Tangaye could support a part of these services from its own resources, and then also might be able to sustain the recurrent costs of such things as a dispensary or school. As a start, the CFJA schoolmaster, the extension worker and the animator could be provided with places to live.

19. Diembende

Diembende is one of two important villages (the other being Scoudougui) located in the canton of Soudougui, in the southwest corner of the region. In 1975 its population was about 1,500.

The canton is almost completely isolated from the rest of the region, having its major access route from the west via Tenkodogo-Senkansa-Yargatenga-Sanga in the dry season only, and having major trade relations with villages in neighboring Togo. The area is reported to have good agricultural potential, but its isolation has prevented effectiveness in ORD efforts, and so unexploited and poorly exploited areas dominate.

On the other hand, Diembende does have a dynamic community development activity, as evidenced by the construction of a one-classroom school and its provision with necessary furniture and materials, as well as construction of a lodging for its teacher. Local priorities for development projects are a dispensary and expansion of the school to three classrooms.

ORD extension activities in Diembende ceased in 1978, apparently due to insufficient funds.

20. Diapangou

Diapangou and its population of 1,200 (1975) is the central place of a small canton covering 570 square kilometers and containing about 7,600 people in 26 villages; the largest of which after Diapangou itself are Coargou, Koulboko, Outandeni, Bossangari and Tilonti. Only Diapangou contains basic services, and only Bossangari has a year-round well. Vehicle access is simple due to the position of the town on the Fada-Ouagadougou road, 21 km. west of Fada.

The primary school building was put up in 1970 and is in relatively good shape, although the cement floor is breaking up and termites have digested many school records, exercise books and texts. School furniture was supplied by the White Father's mission in Fada and has been repaired by a carpenter sent out by the sub-prefect at Fada; thus demonstrating a useful aspect of being very close to a regional headquarters establishment. There are three classrooms and three teachers operating on a system of alternating years of admission. Grades one, three and five being taught in a first year, and grades two, four and six in a second. There are about 35 - 40 graduates each year, of which two or three are likely to be admitted to secondary school; the rest returning to family farms or emigrating from the region.

The school also has an organization of parents with its own treasurer who collects 150 CFA from each parent at the beginning of each school year and then another 50 CFA each month. The contributions are used essentially for exercise books and writing materials; the cost of textbooks (1,800 CFA each) or athletic equipment (7,500 CFA for a football) being well beyond reach. The parents association has also

set up a separate revolving fund to purchase basic drugs for the school (e.g. Nivaquin, Aspirin, eye ointment, etc.) which are then sold to students at cost. This compensates for the absence in the town of either a pharmacy or a dispensary; or the existence of mobile services which theoretically could be based in nearby Fada.

The inhabitants built their own maternity center. Actually, the facility was originally destined to be a dispensary and was erected when the Ministry of Public Health promised to supply a nurse and drugs once it was completed. The community, with some help from Freres des Homes, erected an excellent five-room structure; but then moved its maternity clinic into it when the nurse did not materialize. The clinic is staffed by a professional mid-wife and an unsalaried assistant matron. The latter is the canton chief's daughter.

The idea of having a dispensary remains, however, and the community is undertaking voluntary subscription to build another dispensary. A treasurer has been especially appointed to handle this fund and has collected 500,000 CFA from local residents and emigrants which is soon to be deposited into a bank account at Fada. About two million CFA will be required to complete the project. Some discussions were also held regarding the recurrent costs of operating a dispensary, notably for supply of drugs. A subscription of 150 to 250 CFA per person per year was considered to be both sufficient to cover the cost and sufficiently affordable to the canton's inhabitants.

Another community project, reflecting a dynamic quality of all the village groups in the area, was the construction of a dam. Not well constructed, its reservoir dries out annually, but does yield water with some digging in the dry season.

Diapangou is the subsectoral seat of the ORD's Fada sector. It retains the director of the subsector and two extension agents, each of the three being responsible for eight villages in the canton. Unfortunately, supplies are limited, the unit having received only 50 kg. of Kodjari phosphate during the year; enough for about four hectares out of the 3,000 - 4,000 which are currently cultivated. The shortage tends to be acute insofar as general fertilization is concerned since farmyard manure can be applied only in compound farms where it is practical to tether animals, but cannot be as readily done in the more important bush farms at several kilometers distance away. Still, there appears to be ample grass for bedding and so in principle, according to the director, the conditions were satisfactory for attempting farmyard fertilization in the outlying farms.

There are about 100 plough farmers in the canton, some with bullock-teams but most using donkeys. ORD loans during the year, averaging 55,000 CFA each, numbered 10 in Diapangou and three in Bossangari. Nevertheless, the 100 farmers using ploughs represent about 12% of all farming families and so this innovation has caught on rather well.

The town also registers as having several peanut shellers and rice hullers. These are, however, mobile. Produce buyers bring these to Diapangou for the harvest and, having completed their purchases and reduced the effective bulk and weight, take them away again; doubtless to other markets in the region.

Diapangou also has an old, small granary left over from the period of the Societe de Prevoyance during which post-harvest deposits of millet or sorghum could be withdrawn at later, harder times. But since farmers need cash at harvest time, they are more likely to sell what they believe to be their surplus rather than deposit it in storage; and so the granary is not used. A Cereals Bank project which pays farmers the market price at the time of deposit, and which the farmer can repurchase later on at a price marginally higher if he or she so chooses, might lead the granary to become an active service again. This is what the canton chief suspects. 236

Being quite close to relatively well-endowed centers like Fada, Tibga or Diabo, it is unlikely that Diapangou could serve as a major location for additional public services except perhaps for a dispensary to serve the canton's populace; which it is in any case in the process of financing on its own. However, given the demonstrated initiative and enterprise in providing for its own necessary services, it does represent a good candidate for promoting further a more wide-ranging program of local self-sufficiency and local absorption of recurrent costs; especially as it pertains to agricultural production in the canton.

21. Liptougou

See monograph of Coalla, above.

22. Gayeri

Gayeri, with a population of about 3,100 (1975) is the central place of the canton of the same name (pop. 15,200). It serves an area of about 5,000 km² containing 23 villages, the principle ones being Bassieri, Boulgou and Bartibougou. The town is also a subsector seat of the ORD, in the sector of Matiacoali.

Principal access to the town is from the southwest, by way of Komadougou (on the Fada-Bogande road, nine kilometers south of Nayouri), Yamba, Sambialgou and Oue. Most maps indicate a route from Nayouri to Yamba, but this is a non-existent link. The route that does exist can be used only in the dry season due to the lack of maintenance between Yamba and Gayeri, and also because the approaches to a major bridge on the Yelinfoybou river have eroded to the extent that vehicles must go around, rather than over it. Maps also suggest the possibility of access from the southeast, by way of Matiacoali, Kankantiana, Bouigou and Bohongou. However, although one can travel in the dry season from Matiacoali to Boulgou, one can go no further. Not surprisingly, four-wheeled vehicles almost never visit the town, and Gayeri is one of the most isolated centers in the eastern region.

The town does have a primary school building containing three classes of recent construction, but it is only partly complete. The two unfinished classes are used by village animals. The completed classroom, well-furnished with desks and educational material was used for four years and usually contained about 60 students at any given time. However, in 1978 the teacher left on Christmas holidays and never returned. He was not replaced and the school closed.

There are also a dispensary and maternity, and both are in sound condition. The latter has never been used since a matron has yet to be ascribed to it. The former is used whenever the nurse is in town. The ORD facility, which houses the director of the subsector and his one extension agent, are devoid of most types of agricultural inputs usually seen at such places. There is, however, an effective village group which has built a local granary.

According to the cantonal chief, what the town needs is a dam to retain water, notwithstanding the existence of two good year-round wells. The general feeling in the area is that there is probably a good deal of unexploited agricultural potential in the canton, but isolation of Gayeri and its coincident lack of basic services prevents the town from becoming a central place from which such exploitation could be promoted.

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ANNEX C

ANNEX C: MONOGRAPHS OF THE CENTRAL VILLAGES OF THE CENTER-WEST REGION¹

- 1 For purposes of brevity most of the original monographs prepared by the UFRD project have been edited. A lesser degree of such editing has been applied to the monographs of Yako, Leo, Sabou, Namoro, Bingo and Poa in order to illustrate the content of the originals.

1. Yako

Yako, which in 1975 contained about 9400 people, is the central town of a canton containing 45,000 people, and is the subprefecture seat for an area containing 3 Arrondissements and 140,000 people at the same time. It is also the headquarters of an ORD sector.

Yako has the largest population of any center in the region, outside of Koudougou and Reo. Primary access is along National Road 2 from Ouagadougou, (107 kilometers) and has usually been in excellent condition. Yako also has all-weather road connections with Ouahigouya and with Koudougou, via Samba. The road to Koudougou is less reliable and comfortable in the rains, but is usually negotiable. Roads classified as "dry-weather" run west from Yako to Bagare and Toma, and east to Kirsi and Kaya. The Bagare road appears to be much better than it is usually represented on maps.

Yako is therefore quite an important road junction, and selects itself as a natural central place of the northern districts of the region. It already has much better services than most of the other central villages studied. These include a Medical Center, in effect a district hospital which could well serve as a model for a kind of subregional hospital badly needed in the remote areas of both the center-west and East regions. It has a newly completed secondary school, a gift from a philanthropical citizen and an important Catholic Mission. Yako has some traditional importance too. The Chief of Yako is a major figure in the Mossi hierarchy, and exercises influence outside his own particular canton.

There are four primary public schools in Yako with 6 classrooms each, and one private school operated by the Assemblies of God mission with 3 classrooms.

All of the public facilities were run down. There were leaking roofs, patchy ceilings, doors and windows in exceedingly poor repair, and most of the furniture consisting of what the schools had started with were falling to pieces and not repairable. Teachers ascribed the state of the furniture partly to the fact that the classroom doors won't lock. The children romp in the classrooms during the midday break, while the teachers' backs are turned, and this is rough on the desks. There are no chairs for the teachers. They teach on their feet.

Each school has a Parent's Association and there are obligatory annual contributions of 300 CFA per pupil. While teachers insisted that the contribution was obligatory they agreed it could not be enforced, and while most parents pay some don't. Yako Mixte has an enrollment of 356, so theoretically the parent's contributions bring in about 100,000 CFA a year. It is not very much. From it the School has to pay its cooks, buy chalk, meet the costs of transporting Cathwell's corn meal from Ouagadougou, and effect such replacements of desks and benches as it can afford. It does have a few new or comparatively new desks. They

were made in Yako by one of the local carpenters who charged 4000 CFA each for his labor after the school had supplied the wood.

The five Yako schools between them accept something like 300 or 350 candidates every year. As many are turned away. The great majority of the children come from Yako itself or from villages within five or six kilometers of it. Relatively few come from more distant places and these stay with friends and relations in town. Relatively few needless to say are able to continue with a secondary education. The Yako Mixte school presented 40 candidates this year and only four were successful. Four is better than most primary schools achieve.

The only supplies regularly received from the Ministry of Education are the school registers and enough text books for the teachers. Everything else is purchased by parents. Text books, at Fr. CFA 1800 to 2000 each, are beyond the parents' reach. So in some cases are exercise books, though children are threatened with expulsion if they do not bring them. 242

The Tinsobongo Boys School and the Tinsobongo Girls School were formerly Catholic Mission Schools now taken over by the State, though they are situated on Mission property and the buildings still belong to the Mission.

The buildings at Tinsobongo Boys are essentially solid, of concrete block with good roofs, but they have had no maintenance since the Mission turned them over. The ceilings have gone and the classrooms are very hot. Door and window openings are in very bad repair. There are no sanitary facilities for the pupils. There is a kitchen, but without any cooking utensils. The classrooms are shabby, all in need of distempering.

Furniture as usual is insufficient so that five or six children occupy desks constructed to accommodate three. There are no tables or chairs for the teachers. Barely any scholastic supplies are received from the Inspectorate at Koudougou. Subscriptions by the Parents' Association are the sole sources of exercise books and pens and other school supplies, and these also pay the small wages of the cooks.

This school has 371 pupils this year. It had 340 last year when four of its pupils succeeded in gaining places in the Secondary schools.

The Tinsonbongo Girls' School presents essentially the same conditions; no ceilings, no maintenance for many years, doors and windows in bad repair, insufficient furniture and very little of it in good repair. The parents subscribe 300 francs a year for each girl for transportation of Cathwell supplies and to buy school supplies. Official supplies this year amounted to six boxes of blackboard chalk and five text books, all appropriate for one particular class. The kitchen was built

by the parents and has no windows or doors. The teachers would like to make a sports field but they have a problem - the land belongs to the Mission. They would also like to have a well for the school.

Here too enrollment is increasing, putting extra pressure on inadequate facilities. There were 380 girls in the school last year, and there are 404 this year. The youngest class has no less than 92 pupils. One would not care to be their teacher. (Twenty of these, having made little progress last year, are repeating). Even so some 60 applicants were turned away, they just could not be crammed in. The results? One pupil from Tinsobongo Girls' school proceeded on her way to a Secondary education last year.

The small Assemblies of God school at Yako looks well-built and well-maintained, compared with the public schools. It was built in 1960 or 1961. The congregation provided labor. A missionary from Ouagadougou with considerable construction skills put on the roof. A good mason was engaged from Ouahigouya. No one claims the place is perfect. There are some defective desks. The ceilings need repair in two of the rooms, and so do some of the doors and windows.

The bulk of the costs of operating the school fall upon the Mission. The Congregation at Yako has no idea how much comes from outside Upper Volta, nor has it any idea when three more classrooms will be built, or whether the Assemblies of God Mission contemplates any other educational or medical services in the sub-préfecture. This, apparently, is none of its business. The decisions are made at the Mission headquarters in Ouagadougou.

The school recruits a new intake every second year like most other three classroom schools. As in the public schools as many are rejected as are accepted. The schools presented this year 25 candidates for the secondary schools and 4 won places - a relatively high percentage of success.

Yako has gained a great deal from the benefactions of a Mr. Kanazoé, the owner of Upper Volta's leading construction contracting company. He built and presented the splendid mosque which outshines Ouagadougou's; he provided the excellent dam on the Ouagadougou road 9 kilometers south of Yako and he has now decided to build a new dam 1500 meters long on a branch of the White Volta at a cost of Fr. CFA 300 millions. Mr. Kanazoé built the fine new secondary school on the outskirts of Yako, on the Bagare road, and deeded it to the Ministry of Education to run.

The school will have some problems. The Ministry has decided, no doubt correctly, that it should serve regional purposes, taking students from all parts of the region. Unfortunately there are no dormitories and no facilities for meals. The students will have to live in Yako: and though the school is only a kilometer away from the western outskirts of Yako, it is thought that transportation will present a problem, as well as finding lodgings. A school like this requires three masters in its first year, but only two sets of quarters have been built. There is as yet no water at the site.

After seeing the ill-equipped, ill-maintained, and very poorly supplied village dispensaries, the Medical Center at Yako is an eye-opener. It is, with certain reservations, exactly the kind of place that ought to stand between the desperately poor village dispensaries and the fully equipped regional hospitals at Koudougou and Fada N'Gourma.

It is a modern complex. The main building houses the Medical officer's office, a large maternity center, a reception room and wards with 32 beds. Outside the main building there are solidly built sets of round-houses for the treatment of children, for lepers and for contagious cases. Remote from these is a three-roomed modern building used for the care of under-nourished children, and for the education of mothers. All the buildings are in good repair, though they could do with painting.

The Center is well staffed. There are, for instance, five "matrons" under a highly qualified mid-wife in the Maternity Center. There is a competent secretarial staff. Equipment looks good and sufficient, and so does the transportation. 244

There are very large supplies of drugs. These, however, are furnished only to a minor extent by the Ministry of Health. Most are donated by medical organizations and private physicians in France, connections of the present Medical officer's predecessor. There were many recently arrived parcels still unpacked and the shelves in the Doctor's office were overflowing with drugs, indeed, in some disorder. From these gifts the Medical officer is able to supplement the meagre official supplies received by the dispensaries

of the sub-préfecture. However, now that the connection is broken, it is not known whether these donations will continue; and although the supplies look generous many of them appear to be samples of new products of the kind distributed by manufacturers to establish a market, not necessarily what Yako needs.

The Medical officer visits each of the village dispensaries and maternity clinics weekly, and so this is really behaving like a center. He nevertheless drew attention to certain deficiencies at Yako itself. First, the center is equipped with electricity and running water. Neither works. The generator is in perfectly good order and so are the pumps which supply the watertower. Unfortunately the Ministry is unable to make funds available to buy gas-oil for the generator.

Secondly, most of the beds in the maternity are without mattresses. A few mattresses which survived the original establishment of the center are in a deplorable condition. There are no funds to buy new ones, and there are no funds even to buy plywood to cover the springs upon which the patients now lie.

Maintenance is provided for under the Departmental Budget, and theoretically the sub-prefect is responsible for the upkeep of all public buildings both in Yako itself and elsewhere in the sub-préfecture.

In fact nothing gets done. Though provision for maintenance regularly appears in the Departmental Budget, the money does not get distributed, because the Departmental Treasury runs dry before that item is reached. The sub-prefect evidently believes that the old system of decentralized budgets, each sub-préfecture or "collectivé" preparing and administering its own, was considerably more efficient. He can no longer write his own orders for gasoline. On each requisition for 200 liters he needs to get four different signatures at prefectural level, and this can easily cost him a couple of days - and some 40 liters of gasoline - in travelling to and around Koudougou to get them.

A particular example of lack of maintenance in Yako: the place has a fine water tower supplied from an excellent well by means of an electric pump. The well is said to be capable of supplying the whole of Yako. Some pipes and public fountains were put in. However, none of these works. First, the generator is out of order and the sub-prefect would not have the funds to buy fuel for it even if it was repaired. Secondly a minor repair is needed on the pump. The Société Nationale des Eaux could easily put all this right; but as an independent corporation it demands payment for its work. There are no funds to meet the bill.

The ORD Sector facility at Yako is the best-provided in physical facilities of any sector seen in either region. In a spacious fenced compound it has a large, modern warehouse, three smaller but still substantial stores, and a sector office. All the buildings are solid, secure and in excellent repair.

The sub-sector director at Yako uses one of the sector stores as his office. This ORD unit has six extension agents and two community development workers. They are apparently well-received in the villages.

As far as plough-farming is concerned, the sub-sector is concentrating at present on the area south of Yako, on villages like Kabo and Bouboulou, up to its boundary with Samba. If the figures are correct, Yako sector received in 1979 about 8,000,000 CFA in agricultural credits, far more than what some would think its fair share of the 28,000,000 CFA available to the entire ORD. The Fonds de l'Entente alone provided 4,770,000 CFA for 50 bullocks and 50 ploughs. The Fonds de Développement Rural provided 1,460,000 CFA for drought animals, and 2,200,000 CFA for equipment.

Even so this did not satisfy even half the demand for loans. The two Funds have imposed quite different criteria for loans, which must be puzzling to the farmers, especially since they are both channelled through the ORD; but neither permits loans to reach a figure at which two bullocks and a plough can be financed. The farmer still has to provide one of the bullocks from his own resources. Otherwise there would be even more applications than there are.

The sector director has no doubts himself about financing 100% of the costs, nor about the farmers' ability to re-pay. Limiting the loans to Fr. CFA 70,000 or Fr. CFA 80,000 is a matter of practical expediency enabling them to serve the greatest number of customers. Of course, there are many more donkey ploughs than bullock ploughs in the sector: and the donkey ploughs are well adapted to the light soils of this part of the region.

The ORD has no veterinary officer in this sector. There is a veterinary officer at Yako, an employee of the Department of Animal Health. The impression given, though they spoke of him kindly, is that he is an aged man and not very effective.

Apparently the village groups of the sector are active organizations. This year alone they have developed 46 hectares of valley bottoms, an impressive result compared with the puny successes reported elsewhere. Development is by the group, exploitation is by individuals on individually assigned lots. Rice is always grown and vegetables will follow provided there is a dry-season water supply. That circumstance is not predictable for all the valley bottoms.

In addition, the village groups often have collective fields of millet, sorghum and other crops, the revenues from which are not shared but go into the group's treasuries. None of the groups have warehouses or stores, but they need them. Generally fertilizers and other inputs are stored in the President's own compound before distribution to the members.

There are 14 or 15 Young Farmer Training Centers (CFJA) in the sector, of which ten are actually functioning. The others are closed because there are no teachers. There are a few Women's Training Centers as well. None of the CFJA are equipped with ploughs and bullocks.

The overall impression is that this ORD sector is well-organized and is operating efficiently within its means. It serves a large area and a large population. It is properly based at Yako, the obvious geographical center. Like every other sector it could dispense far more agricultural credit than it has available to it. Like every other sector its efficiency is impaired by a lack of transportation. The sector director has a pick-up truck, the subsector directors do not, and they and the extension agents only have mobylettes if they are capable of financing the purchase of them from their own resources. The ORD has stopped giving its employees advances for mobylettes, and this may be wise. But with only one pick-up truck for so large an area it is difficult to distribute the inputs the village groups are asking for.

In terms of agricultural potential the area is not well-favored. On historical records (1951-1970) it should expect from 700 mm. to 800 mm. of rain a year. It received an average of little more than 600 mm. in the generally bad years of 1967 to 1977. The wet season is a short one, from about the end of May to about the third week of September. Frequently there is a dry period of from two to three weeks after the first rains have fallen and farmers have completed their sowing, compelling them to sow again. This probably happens at least once in every five years and when it does crop losses are

anything from 20 percent to 50 percent. It happened this year (1979) and in addition, August turned out to be a dry month. In the Yako sub prefecture August and September rains are thought to be deficient four years out of ten. In 1979 the harvest has varied considerably from place to place, but many villages were already running short of food in December.

The sub-préfecture has been classified as a "marginal" zone characterized by inadequate rainfall and over-worked, over-grazed and exhausted soils. Peanuts are the principal cash crop: traditionally in the West African savannahs the crop represents the final stage of production before land has to be abandoned. There have been some encouraging developments, vegetable production at Tindila for example, just south of Yako. But these are small scale, and generally there can be no doubt that this part of the region is in a bad way. Most villages suffer from a shortage of drinking water in the dry season.

Yako is also a Cantonment of the Public Works District of Ouahigouya. Its responsibilities are the upkeep of National Road 2 between Yako and Boussé and between Yako and Gourey, 30 kilometers north of Yako and of National Road 13 between Yako and Imassogo. The cantonment staff consists of the cantonment chief, a driver, a gang headman, and a watchman. There used to be a gang of 10 laborers, but these have all been transferred to district headquarters at Ouahigouya.

The cantonment has no road-maintenance equipment and no tools for the upkeep of something like 150 kilometers of main road. Presumably, however, the chef de cantonment inspects and can call on the District for men and machines when he needs them. However one may be inclined to criticize these arrangements the fact is that the Boussé - Yako road is usually in a good state of repair, and fast and comfortable to ride on. The Yako - Imassogo road is far less comfortable, but it stays open.

2. Leo

Leo had 3700 inhabitants in 1975, containing almost half of its cantonal population at that time of 7600. By 1978, as a result of in-migration, the population had reached 4800. Besides being a cantonal seat, Leo is also the headquarters of a large sub-prefecture. The town can be reached from Ouagadougou to the northeast on National Route 6. This road is open all year, though quite difficult at the end of the rains. Other roads leading north to Sabou and Koudougou, and northwest towards Fara and the Ouaga-Bobodioulasso highway connect Leo to the more populated areas of the region; but one not generally motorable in the rainy season. The roads west to Ouessa and south towards Ghana are useable the year round.

The secondary school, the College d'Enseignement Generale, was established in 1970 with 2 classes containing 30 students each. Total enrollment is now about 250, with 50 to 60 in each of 4 classes supervised by 7 teachers.

The school was originally intended to serve the entire sub-préfecture of Leo, and substantially it still does. Three quarters of the present student body come from the sub-préfecture (from all parts of it, it was said, not just from Leo town), while the remainder come from Koudougou, Ouagadougou, and Po. Since there are no dormitories there are accomodation problems. Leo cannot easily provide lodgings for so many, though the Chief of Leo, said to be an active and influential man, has been helpful in persuading his people to take students in. One third of the students are girls.

There are three categories of students at the College. First are those who are awarded some of the 1800 secondary school places allotted in the annual examinations, and do well enough in them to receive full scholarships. These pay no tuition, are given their school supplies free, and receive living allowances of Fr. CFA 6000 a month. Next are those who win places in the examinations but don't do quite as well. These are not charged tuition fees but pay a flat charge 5000 CFA, and receive no living allowances. The next are all the others unsuccessful in the examinations, as many as there are still places for, accepted on the applications of their parents to the Principal. They pay the full cost of their school supplies, approximately 15,000 CFA a year, plus a flat fee of Fr. CFA 5000 for tuition. Their living costs, also, fall upon their parents. A total of 20,000 CFA a year (excluding living) is not exorbitant. Private secondary schools in Upper Volta charge about 70,000 CFA for supplies and tuition.

Like the primary schools, the College draws supplies of corn-meal, dried milk and vegetable oil from US Catholic Relief, "Cathwell", and it supplies a midday meal. There is a cook, paid 3000 CFA a month from contributions paid by the parents in addition to the other fees. The main buildings of the College are in excellent shape (being relatively new). They are wired for electricity and there is a generator, but it has broken down. Some additional buildings are needed, a small library for instance.

The Principal is a great believer in doing it yourself. Using the sub-prefect's under-employed mason and carpenter, he reckons that a library could be built for a much lower cost than a contractor would charge. He has just received an estimate for a small library, 27 square meters, at well over 1,000,000 CFA. He has made an estimate of his own and brings it out at 735,000 CFA, and better, with glass windows. He sounds like a practical man. There has been some maintenance at the College. For example it has been repainted

once since 1970. The doors and windows are metal, and need no repairs. The roof is good, and the ceilings are good.

After their fourth year the students take an examination for entry into a Lycée or an Ecole Professionnelle. About half of them pass. Some of the promising but unsuccessful are permitted to stay at the College for a fifth year and try again. The rest drift away.

The Principal's main complaint was the insufficiency of his budget for College supplies. Textbooks can only be bought at Koudougou or Ouagadougou. FAC (the French Fonds d'Aide et Cooperation) supplies some textbooks, but these are not always what the curriculum stipulates. He would like to have a College library of about 500 volumes. He has heartily endorsed the idea of a mobile library for Leo. There are probably as many as 250 educated people in Leo who would want to make use of it. At the moment they have absolutely nothing to do except drop in to the bars and buvettes.

Leo II is a comparatively new primary school, in much better shape than Leo I, an old school dating from colonial times, the first in Leo. The Director at Leo II is Mr. Somda Denis, who also happened to be at the time General Secretary of ADES (see below).

There are two other primary schools; Leo III, just beginning with only two classrooms, and a small Protestant Mission school, also with two classrooms. The Leo II school has two three-classroom blocks. One was built in 1965 and shows signs of wear. The other was built in 1977, mainly with subscriptions from parents though the sub-prefect provided a ton of cement to help. In the old building the ceilings are of cardboard and are falling down. In the new building one classroom has a good plywood ceiling and the other two, and the store, have no ceilings at all. The roof leaks freely in the old block, and even in the new one there is some leakage into one of the three classrooms. There are 6 teachers.

The school furniture is good by comparative standards, but insufficient, so that in some classrooms 7 pupils were occupying desks intended for 3 or 4. But the requirements are not exorbitant; the Director estimated that another thirty "tables/bancs" and three tables and chairs for the teachers in the new building would make everyone comfortable.

The school is very remote from the center of Leo. So far from the dispensary for instance that the teachers make provision of a First-aid box and a few medical supplies a priority. It was established to serve the needs of a particular quarter beyond the Leo dam and reservoir. A few children come from villages 20 kilometers away. Water is also a problem. There are two shallow wells at the school, 8 meters and 10 meters deep respectively, and both run dry in December. The dam seems to be well built, but the reservoir is shallow and dries out even earlier than the wells.

The total enrollment at this school is 360. There were 68 beginners in 1979, and as many aspirants were rejected. The school presented 16 candidates for the secondary school examinations in the summer and did not succeed in getting a single one of the 1800 places available. School supplies have so far amounted to 20 exercise books for the 360 pupils, and 8 boxes of blackboard chalk for the 6 masters. All other supplies are purchased by parents. A Parents' Association, making a modest levy on its members pays an honorarium of 1000 francs a month to a volunteer cook, and also pays for the transportation of Cathwell's corn meal from Ouagadougou.

The Leo I school as its name suggests, is the oldest educational establishment in Leo. It is more conveniently situated than the Leo II school and is more accessible to the bulk of the population of Leo. Because of age and lack of maintenance the two classroom blocks (three classrooms each) are even more dilapidated. The shortage of good furniture is more severe than in Leo II. The supply shortages are every bit as severe. 270

The dispensary at Leo is described officially as a Medical Center since it supervises and distributes supplies to eight other dispensaries at Boura, Beun, To (also in Beun canton), Cassou (in fact non-existent), Sapouy, Bougagnanou, Ouessa and Niego. Whatever its name, there is in its appearance and facilities little to distinguish it from any other village dispensary. It receives about 50 to 60 patients a day, almost all of them from Leo canton. The most distant village served is some 15 kilometers away from Leo.

It is, however, staffed by an infirmier d'Etat, a more highly qualified man than one usually finds in a small dispensary, while the neighboring maternity clinic is presided over by a fully qualified midwife. The infirmier d'Etat is assisted by an assistant nurse, a public health worker, and a laborer with some skills.

The dispensary building itself is far below the standards one would expect in a center as important as Leo. The structure dates from Colonial times, perhaps quite distant colonial times; cement block with a cement plaster, slightly better than most of the other dispensaries, but dilapidated and badly in need of cleaning and painting. The equipment too looked better than usual, and, in spite of many deficiencies, there is a little more of it than is normal.

There are eight rooms, an office, a consulting room, a store, a dressing room, a laboratory, a "salle de garde", (retained for the accomodation of the nurse during night duty), a pharmacy and a room in which injections are administered. The only room with a lock is the pharmacy. There is an out-building of 7 rooms, five being used as wards for patients kept under observation at the dispensary, and two reserved for contagious cases. There was no one in this out-building. There are beds but no mattresses, plywood boards being used instead.

At one time electricity was installed in the dispensary, but the supply has not operated for many years. The remnants of the wiring are visible. The supply was from a generator maintained by the sub-prefecture, but this fell into disrepair long ago and was removed. The out-building, too, is constructed of permanent materials. The roof leaks, the doors have no locks and the windows have perished and need to be replaced. There are, apart from the accommodation for the sick, two other small rooms, one a store and the other used by patients to store their foodstuffs.

The problems are the same as those elsewhere. The sterilizer is on its last legs and there is no kerosene for it. To raise funds to buy a little kerosene the dispensary staff fabricates little medical record books and sells them to patients at 30 CFA. There is a gas lamp but no gas. Gas cannot be bought in Leo. A quarterly supply of drugs arrives fairly regularly from Koudougou but it has to be shared with the seven or eight other dispensaries and it is not nearly large enough to satisfy needs. The contents of the supply vary from one quarter to the next so the staff never quite know what to expect. However, there is a National Pharmacy depot in Leo and this is well-supplied, so prescriptions can be filled. There is a privately-owned pharmacy too, but according to the dispensary staff it does not amount to much.

There is an ambulance, a Peugeot 504 Familiale which is more suitable than the pick-up truck at Diapaga in the east ORD. However, it is out of order and the estimated cost of repairs is so high that it is not likely that funds will be found. In the meantime the regularly paid driver has nothing to do. Patients being evacuated to Ouagadougou hire private transportation.

Water is scarce. In the dry season staff and patients, including the contagious cases all resort to a well in the market place. Water is a more serious problem in the Leo sub-préfecture than in the rest of the region. There is no refrigerator for the storage of perishable drugs. Instead these are piled in their boxes in a corner around an earthenware pot of water. The assistant nurse said that this worked. It did not look ideal.

Preventive health services are conspicuous in places like Leo by their absence. Nothing is done about cleaning, water treatment, public conveniences or the prevention of mosquito breeding. There appears to be no attempt at public health education.

The Maternity Center at Leo is a remarkable structure, difficult to describe. It was put up in 1946, before independence. It resembles two connected Nissen huts but built in reinforced concrete, half round, with roof and walls cast as a single feature. It looks good and solid, much better than most of the old buildings seen. Unfortunately it lets the rain in at the apex of the roof.

The staff consists of a highly qualified mid-wife, a young woman on the budget of the Ministry of Health, and three matrons paid by the Treasury of the Préfecture. In addition there are three "benevoles", unpaid volunteer helpers, from Leo. The center needs a large staff. It attracts patients from a larger area than the dispensary-- some coming from villages 22 kilometers away. On an average the staff handles 60 births a month and on occasions it has handled seven in a single day.

By comparative standards the place looks spacious, clean and well-equipped. (It too is equipped for electricity though of course it has none). The mid-wife, on the other hand, appeared to be thoroughly discontented with the premises. She complained not only of the roof, but of beds without mattresses; of having to sterilize instruments in boiling water over a charcoal cooking stove instead of using a proper sterilizer, of having to buy the charcoal, at that, by charging patients for drugs and materials she would rather have supplied for nothing, and of the sheer lack of instruments to do her work with, including forceps. None of the doors lock. She showed the lying-in ward, a large room with many patients in it, but with the windows closed (which the patients may prefer) in utter darkness. She was distressed by the lack of the most elementary supplies like soap, towels, cotton-wool, methylated spirits, buckets, surgical gloves, basins, even chairs and tables. With her business she needs another delivery table and can't get one. She receives supplies from Koudougou separately from, and apparently less generously than, the dispensary, and the dispensary tries to help her out. This place is also equipped for running water and there is a good set of washrooms and showers. Unfortunately the running water does not run.

There is a U.S. Peace Corps Volunteer at Leo, a young man who made an excellent impression. His business is with the Young Farmer's Centers (CFJA). There are 19 of these in the sector outside Leo village, and he concerns himself with six of them. Of the six only one, that at Nadiou, had a bullock team and a plough. Attendance at his centers was fairly good, about 20 to 25 pupils in each. He was enthusiastic and had high hopes for them. He had some ideas on what was wanted as well. First, an Animal Husbandry Center to serve all the CFJA in the region. For this not much would be wanted in the way of construction, but fencing and furniture would be necessary. There were hopes of a contribution by IBRD, and all the CFJA in the sector were apparently prepared to contribute 200,000 CFA each. He wasn't thinking just of cattle, but also of poultry, rabbits and bees, and of a distribution center for vaccines. He was also in favor of more funds for the training of teachers. His keenest wish was for a visit, just for one day, from a professionally qualified Animal Husbandry man who could put him on the right track. It did not seem much to ask.

There is a central Post Office in Leo, the only one in the sub-prefecture. It offers telephone and telegraph services, but the equipment is extremely old - 20 years, and works capriciously. The equipment, originally powered by electricity as long as the sub-prefect's generator was working, is now supplied by batteries. There is rarely any maintenance, either of the equipment or of the line to Ouagadougou. The subprefect's teletype apparatus was more reliable than that of the Post Office. There are 21 telephone subscribers in Leo, and that is as many as the present equipment can take. There are many other would-be subscribers in Leo, businessmen with connections in Koudougou, Ouagadougou and the Ivory Coast. Only 9 of the present subscribers are private individuals.

The Post office building, three rooms built in cement block, is about 30 years old. The roof leaks, and there is evidence of termite attack. The ceilings are of cardboard, giving way in places. There is a staff of 6, including the receveur, and the place is now too small. There are, for instance only 22 Postal boxes, and these are in the interior of the office, to which the renters do not have access. There are numerous applications pending for boxes which cannot be satisfied. This can be compared to the splendid new Post Office at Kantachari, a less important place in the eastern region, which has 150 exterior boxes of which only 15 are rented.

Since the recent institution of the Poste Automobile Rurale, mail is being delivered and collected pretty regularly; once a week. This is a great improvement on the previous year when there were often two or three weeks and sometimes a month between deliveries by Air Volta. However, deliveries are made only to Leo and Ouessa. The mail truck, for example, goes straight through Sapouy, and then the Sapouy people have to come to Leo to collect from the sub-prefect's office. But apparently it is planned that the old Arrêts de Poste shall be restored and that the mail truck staff shall sell stamps en route. Leo seems to deserve something better than it has. In terms of postal revenues it ranks with Yako and ahead of Reo, but it is less well provided for than either.

A very interesting aspect of Leo is its Association pour le Développement Economique et Social de la Sous-Prefecture (ADES). This is a private association of civic-minded individuals, some of them retired civil servants and some still employed. The membership is not very numerous. Members make an initial contribution of 500 CFA. This can hardly do more than pay for administrative costs if, indeed, it does that. The Treasurer said that the balance in hand is a mere 4200 CFA.

But the Association exists and works and has ideas, and now has one solid achievement behind it - the wells at Leo. Three wells were dug and two were successful, finding good supplies at between 35 and 50 meters. The third was still dry at 50 meters and was abandoned. (Two successes out of three attempts is a very good average in these difficult and uncertain conditions). The two good wells, one near the market and the other near one of the schools, have been fitted with serviceable hand pumps.

ADES organized this work but did not pay for it from its own resources. There was a donation of 5,000,000 CFA from a foreign aid agency and a private well-digging company, AFOCOM, in Ouagadougou was engaged. The pumps, valued at 600,000 CFA each, were supplied free of charge by AFOCOM to help out.

ADES is now promoting the study of dam-sites on the Sissili river. After water their priorities are schools and public health. School supplies are a great problem, text books being particularly hard to get. For example the secondary school at Leo has prescribed as required reading books which cannot be obtained even in the shops at Ouagadougou. The Maison des Jeunes at Leo is also on their minds. It is a good building which should be serving useful educational and recreational purposes for the young people of the town, but it is empty, unequipped and unorganized, and is as yet serving hardly any purpose at all. 254

It may be natural for ADES to think first of Leo, where many of its members live, but there seems to be a genuine intention to serve the rural population as a whole. Every two years, there is a General Assembly to which each canton sends five delegates. This could be useful. While there may well be other associations of private citizens in the two regions this is the first encounter with one as well-organized and as interested in rural development. One might note in ADES some emphasis on tribal affinities, that is to say a pride in the Gurunsi or Nouni and Nankanna people who make up the indigenous population of the sub-préfecture. There is some resentment of the immigrants - not because they occupy and use land, they are welcome to that, but because they willfully or ignorantly infringe the traditional land observances. But local and tribal pride is not necessarily disruptive or dangerous, it can be a great force for good in local development.

3. Reo

The town of Reo, with a population of 14,800 is the seat of a sub-préfecture. It is also the seat of a Commune, corresponding to its canton containing 39,100 people (1975), headed by a sub-préfect-mayor; and is the headquarters of an ORD sector.

There are three primary schools in Reo, each containing 6 classes, and are all in above average condition. These schools are the mixed school of Reo-Bessyel, the boy's school and the girl's school. The latter two were originally private schools put up by the Catholic Mission in 1954 which were then nationalized. The land still belongs to the church and the government has been requested to leave the property. A site for a new public facility has been selected, but construction has yet to begin. These two schools contain 480 and 440 students respectively. The canteens operate and are supported by parent's contributions of 250 CFA per student and supplies provided by Cathwell.

The dispensary is in relatively good condition, having been renovated by the Catholic Mission, and is staffed by 3 nurses, one public health worker and one technician. Together they deal with 100 cases a day on the average. The maternity is staffed by a nurse acting as mid-wife.

The ORD sector facility, lodged in the director's house at present, includes 2 extension agents specializing in truck farming, and a woman's animator. The village is an important vegetable gardening area and is facilitated in this new endeavor by its location 14 km from Koudougou on an all-weather road. A priority project expressed at Reo was the provision of electricity.

4. Tenado

Tenado, with a population of 3900 (1975), is a subprefecture headquarters and the central village of the canton of Khyon (pop. 26,500). It is located 25 km west of Koudougou, on Route Nationale 14; an all-weather road.

The primary school consists of 2 buildings, each with 3 classrooms, built in 1956 and 1960 respectively. By comparative standards it is in average condition, as are its furnishings and supplies. Enrollment stands at about 400 students, with 80 admissions being brought in each year. There is a canteen supported by the Parents Association and which provides meals with Cathwell supplies.

The dispensary, staffed by two nurses and a laborer treat about 50-70 cases a day. This unit has equipment and supply problems more or less the same as most other facilities in the region; as does the adjacent maternity staffed by 2 matrons. Near to these units a new structure has been erected with the help of Cathwell, and is to serve as dispensary and maternity when it is completed. Construction work has been stopped for the moment due to lack of funds to finish the work.

Agricultural production in the Tenado ORD sector is devoted to millet, sorghum, corn, cotton and groundnuts; and to an important extent to vegetable-raising. With respect to this last, 50 truck-farms have formed an association for marketing purposes, and have apparently had no difficulty in disposing of their output in Koudougou and Batondo. Plough-farming has not, however, made much progress; apparently due to local custom which prohibits possession of bullocks before a certain age, and which prohibits the use of bullocks (which belong traditionally to all family members) for personal benefit. Thus demand for ORD credits has been limited.

5. Sabou

Sabou, containing 3900 people in 1975, is the central village of its canton of 11,200 people. It is also a sub-prefecture headquarters, located 87 km. west of Ouagadougou on the road to Bobodioulasso covering the cantons of Sabou, Poa, Sourgou and Thyou; with a total population of 70,000 in 1975.

The other important villages in Sabou canton are Gode, Ipendo, Sarana and Ouezindougou. The first 4, including Sabou, have schools; 6 classrooms in Sabou and one each in the other three. Only Sabou has a dispensary and maternity.

The Sabou primary school dates from 1955 and has 313 students and six teachers. The facility is in average condition by comparative standards, and the furniture, as usual, is lacking. The local carpenter with an ability to maintain such things, does not, for lack of money to pay him. The Parent's Association is relatively active, subscribing at a rate of 100 CFA per pupil to buy exercise books and pens, to pay cooks in the canteen and to transport Cathwell supplies from Ouagadougou. From time to time enough funds are gathered to repair furniture. 256

The dispensary, built in 1962, is in good physical condition, and relatively well-equipped. The staff of one nurse, one public health worker and one worker-technician treat about 40-50 cases a day, drawing from a service area containing some 20-25,000 people. The maternity clinic, with its 2-matrons and village volunteers, is in very good condition and handles about 30 births a month. Though short on equipment, supplies are better than average because the matrons sell Nivaquin to expectant mothers at cost; and hence have a stable resupply capability.

The ORD subsector facility at Sabou coordinates the activities of 4 extension agents, and has a modern facility containing office and storage space. This is a relatively well-organized service which effectively uses food-for-work incentives in getting help from village groups on ORD projects and which maximizes credit for animal traction promotion (though only 21 of 150 applications could be honored in 1979). Development of valley bottoms has been slow, however, the cause being attributed to insufficient ORD equipment rather than a lack of local interest in new cultivation schemes. All the village groups in the subsector, except the one at Sabou itself, were described as well-motivated. Sorghum and Millet are the basic crops, and groundnuts the most important cash crop. Cotton, however, is having a revived interest.

Though there isn't one at Sabou itself, there are several Young Farmer Training Centers in the surrounding area; and they are quite popular.

There is a Custom's House here as well, built in 1972 with the ostensible purpose of controlling imports coming through Leo from Ghana, but since traffic today generally runs in the opposite direction, its utility is somewhat in question.

Finally, Sabou is presented as a tourist attraction having a crocodile pond and an adjacent rest-house managed by the Prefecture. Visitors from Benin, Togo and the Ivory Coast look in on weekends, but do not stay over due to the very poor conditions of the accommodation. It does sell beer to visitors and locals and profits enter the Departmental treasury. It might do better if the building, essentially quite sound, were upgraded.

6. Didir

Didir has a population of 6900 (1975) and is the central village of its canton containing about 43,300 people. It is the seat of the Arrondissement and an ORD subsector headquarters.

The primary school, in 2 buildings containing 3 classrooms each, was originally built by a Catholic Mission and now contains about 350 students. It is in average condition.

The dispensary, staffed by a nurse and a worker, treats about 40 visitors a day. It is in above-average condition, but is subject to the usual shortage of equipment and supplies. The vehicle of the Chief of the Arrondissement serves as ambulance when it is available. The maternity, also in above-average condition, is served by 2 matrons. It is not used very often, most births being assisted by traditional mid-wives at home.

The subsector is responsible for 24 villages organized into 9 extension zones. Three of the extension agents reside in Didir. One of these works with truck farmers who produce green beans, potatoes, onions, cauliflower, tomatoes, etc. Efforts have been initiated to form a marketing cooperative which would be attached to UVOCAM (Union Voltaïque des Cooperatives Agricoles et Maraichères) in order to assist in the disposal of surpluses. To move the process along assistance was requested from Didir's twinned-city in France to support improved water supplies for irrigation and a warehouse. Subject to the limitations imposed by the scarcity of credit, plough-farming seems to be moving along well in the canton.

7. Kindi

Kindi, with a population of about 8500 (1975) is the central village of a densely-populated canton (Lalle-Kindi) containing some 53,000 people scattered over a large number of villages. The more important of these include Bologo, Koné, Temnaoré, Nassoubou, Sigle, Kouria, Zerkoum, Massere and Lalle. As a whole, the canton is very well served with basic services, there being 5 primary schools (Kindi, Masséré, Temnaore, Sigle and Zerkoum), 2 dispensaries and maternities (Kindi, Temnaore), 9 Young Farmer Training Centers (CFJA), an agent of the Department of Water and Forests (Kindi) and the ORD subsector headquarters at Kindi. The village is located 35 km to the northeast of Koudougou, and is accessible when the road is dry. Even then the road could use some major repairs.

The primary school consists of 2 buildings with two classrooms each. One was built in 1955 and the other in 1968. The structures, which have received little maintenance and are in average condition, house about 250 students. Furniture is poor, although the Ministry provided a recent shipment of 12 tables. The Parents Association provides 500 CFA per student, 400 CFA for the construction of a 5th classroom, and 100 CFA for canteen costs.

The dispensary consists of 2 units side by side. One is in poor condition, but the other, built by the Frères de la Sainte Famille, is excellent. Both however are equally short of equipment and supplies to deal with 40-60 patients each day. At one time patients were charged one CFA per tablet and this was used to restock the dispensary; but has since been discontinued. At one time also doctors from the Chinese medical mission in Koudougou used to visit the dispensary every 15 days, but the condition of the road apparently caused them to abandon the practice. There is a small private pharmacy in the village.

The maternity, run by 2 matrons, is large but in poor condition. It has very few supplies and equipment.

8. Pouni

Pouni, with a 1975 population of 1700, is the central village of a canton of the same name containing 30,500 people, and is a sub-prefecture headquarters. It is located 4 km north of the main Ouagadougou-Bobodioulasso highway, along an all-weather road from Tita-Napone and serves the major villages of Tita-Napone, Zamo, Valiou, Bandio-Napone and Tiyelle.

The primary school, containing about 390 students, is composed of 2 buildings with three classrooms each; built respectively in 1955 and 1970. The older unit is in a very poor state of repair, the more recent is in above-average condition. Public supplies are, as usual, limited and most of the material used is provided by subscriptions of the Parents' Association, which range from 500 to 1000 CFA per student. Because the school no longer receives food supplies from Cathwell, the canteen no longer functions. The school does not have a well or latrines either.

The dispensary is in very good condition and contains 4 rooms, one of which is destined for use as a maternity. This particular dispensary is overloaded with supplies. However, they are for the most part pharmaceutical samples provided by a Catholic mission in Tenado, or medicines provided by the Chinese medical mission in Koudougou. The nurse does not know what they are all for, and hence does not make much use of them. The nurse, together with a public health worker, treat 35-70 cases a day.

The maternity, built by the community, is staffed by a matron and a village volunteer. It is in poor condition and is undersupplied.

Absence of adequate water supply during the dry season was cited as the priority problem of the village.

9. Imassogo

Imassogo is located 25 km. north of Koudougou on the all-weather road to Yako. In 1975 its population was 9400 and it is the largest and most important village in the canton of Konkistenga (pop. 43,800). It is not, however, the headquarters of the canton. The chief lives at Pella.

The school has 6 classrooms in 2 buildings and an enrollment of 360 students. One building was erected in 1957 and the other is 1960. Both are in above-average condition. The active Parent's Association has subscribed for repair of doors and locks, construction of a pit latrine and salaries of the cooks at the school canteen.

The dispensary, built of concrete block 27 years ago, is in good condition and is staffed by a nurse and a laborer-technician, and when the former is absent, by the matron of the nearby maternity clinic. Visitors range from 40 to 60 a day, and are drawn from the entire canton. The maternity, like the dispensary, is in good condition but is under-equipped and undersupplied.

The ORD subsector's activities in Imassogo are performed by one extension agent and one women's animator. The latter, apparently, is having better success with community groups than the former. The women's group at least pays its dues.

The extension district has about 50 plough farmers, but most were apparently established by SATEC, before initiation of ORD activities. Millet is the main crop for food, with rice, peanuts and cotton being important enough to attract significant numbers of cash crop buyers from as far afield as Ouagadougou.

10. Fara

Fara had a population of 1600 in 1975, and is the central village of the canton of Nabou, which contained 17,600 people at the time. It is also the headquarters of an Arrondissement. Access to the village from the Ouagadougou-Bobodioulasso highway via Poura is possible the year-round. All other roads in the canton are dry-season routes exclusively.

The village has a dispensary and a 3-classroom primary school. It is, however, an area of net in-migration by various ethnic groups and its cohesion is weaker than that encountered in more homogeneous localities. Water supply is a serious problem here.

11. Nanoro

Nanoro, with a population of about 4700 (1975), is the central village of a canton containing some 25,300 people scattered over several villages including Nazoanga, Boulpou, Seguedin, Soala and Poessi. It is also the sub-prefecture seat for an area containing the canton and the neighboring one of Kokistenga. The village is accessible along dry-season tracks leading from Kordie in the west, Imassogo-Soa in the south and Bolgo-Nazouanga in the east.

The primary school consists of 6 classrooms located in 3 buildings; of which 2 were erected in 1953 and the third in 1966. The facility admits about 40% of applicants and currently contains 370 students. It is in average condition. Parents pay a registration fee of 200 CFA, irrespective of the number of their children at school.

The dispensary was built in 1954, but having been renovated in 1970 by the Frères de la Sainte Famille, is in excellent condition. The nurse and two skilled technicians treat about 90 cases a day during the rainy season, and slightly more during the dry season. The maternity, staffed by 2 matrons, also benefitted from the recent overhaul. As usual, neither health facility is adequately supplied.

Besides the extension agents of the ORD subsector located in the village, there is an agent of the Department of Water and Forests. Note may be taken of the existence of Young Farmer Training Centers in nearby Boulpon, Poessi, Soum and Basziri.

The cantonal chief's development priorities were improved water supply and the upgrading of road access throughout the area, but most especially upgrading of the road eastward to Boussé. Under his direction road maintenance is undertaken by community groups on a regular basis and thus the roads leading to Narnoro, even up to distances of 8 km, are kept in relatively good condition. This is a dynamic community and is well-organized in terms of combining for collective projects.

12. Kokologo

Kokologo is located 40 km. west of Ouagadougou. It has 6500 (1975) inhabitants and is the central village of its canton containing about 32,000 people. It is also an Arrondissement headquarters covering the cantons of Kokologo and Bingo.

The primary school, with six classrooms, has an enrollment of about 360. The facility is in average condition. The dispensary, serving a total population of 45,000, is staffed by 3 nurses and a public health worker—an individual who essentially distributes pills to outlying villages. An adjacent maternity is staffed by 2 matrons.

The facilities were built and turned over to the government by an organization called the "Club-Francais," and are in good condition, and are relatively well equipped. Medicines, however, are in short supply.

The ORD subsector at Kokologo houses a director and five extension agents to serve 20 surrounding villages; as well as a woman's animator. Output in the area consists largely of white sorghum, red sorghum and millet. Production of rice, groundnuts and cotton is apparently increasing, as is vegetable gardening in the villages of Pitmoaga, Basziri, Sakoinse and Kokologo. This last, however, faces a serious constraint due to the drying up of wells in the dry season. Indeed, water is considered locally as the principal development problem to be overcome.

Plough-farming, though not as well-developed as in the canton of Bingo, is a relatively popular idea and the constraint on its expansion apparently stems from limited credit resources.

13. Ouessa

Ouessa is located 81 km. west of Leo, in the southwest corner of the region. It is linked to the former by a very good all-weather road. This seat of an Arrondissement has a population of 1,100 and is the central village of the canton of Niego, containing 8,500 people. It is also the headquarters of an ORD subsector. The village has a teletype machine which is functional, but since the lines are down it serves no useful purpose.

The three-room schoolhouse was built in 1959, and is in average condition. It contains 170 students with admissions taking place every two years. The canteen does not operate, but Cathwell supplies are made available when the Parents Association provides for their transport.

The maternity, staffed by a nurse, a matron and a social assistant is in poor condition.

The Chief of the Arrondissement's priorities for development include the creation of a service to organize monetary exchanges with neighboring Ghana, and the provision of a telephone line to Dissin, 22 km. to the west, and thus provide more effective communication with Koudougou.

14. Arbole

Arbole, with a population of 1,100 (1975) is the central village of the canton of Ramessom (pop. 12,000), and the seat of an Arrondissement containing 33,000 people in the cantons of Boulkom, Kaba, Toleha, as well as Ramessom itself. It is located 26 km. southeast of Yako, along the Yako-Ouagadougou all-weather road.

The office of the Arrondissement presently serves as the Chief's residence and has no administrative furnishings or supplies; and no staff. A separate residence is being built with voluntary contributions totalling 700,000 CFA which have been provided by local populations.

Three of the primary school's six classrooms were built of block in 1954, but have received no maintenance. Three other classrooms are housed in traditional huts for the present, awaiting completion of newer units being constructed slowly by the inhabitants. A balance of work worth one million CFA remains to be done. As in Boulkom, a sum of 1,500 CFA is obtained from the parents of each of the 270 students for the provision of school supplies, salaries of two cooks, transport of canteen supplies provided by Cathwell, and construction materials for new facilities.

The dispensary is the best and largest seen in the region, and was built in 1955. It has a large service area including the canton of Kaba and Toleha, and covering something of the order of 50,000 people. It services about 250 people a day with one nurse and one public health worker. The maternity was built by the local population in 1970 and is staffed by a mid-wife and a matron; and is visited once a week by a doctor from Yako. The facility has no furniture and no equipment.

The village is the location of an ORD subsector.

15. Bagare

Bagare is the headquarters of its Arrondissement, and is the central village of the canton of Darigma (pop. 16,700). The village, containing 1,600 people (1975), is 45 km. west of Yako on the Yako-Tougan road. Although maps and reports indicate this to be a dry-season road only, it appears to be more than suitable for all-weather use, at least as far as Bagare. The village houses an ORD subsector establishment, and a primary school in average condition.

The dispensary is in very poor condition, but treats 40 - 70 visitors a day. It receives an above-average level of supplies from the medical center at Yako, and a weekly visit from a doctor stationed there. The facility itself is staffed by a nurse and a public health worker. The maternity facility, staffed by one matron, is one of the poorest in the region.

16. Sapouy

Sapouy, with a 1975 population of 700 people, is an Arrondissement headquarters and the central village of a canton of the same name containing 5,800 (1975) inhabitants. It is located on the all-year Ouagadougou-Leo road, 64 km. northeast of the latter, and is connected by a dry-season track to Kassou via Bapata.

The primary school was built in 1954, with three classrooms providing the full six-year curriculum. Admissions take place every other year. This is the only school in the Arrondissement (containing the canton of Sapouy, six villages in the canton of Kassou and five villages

in the canton of Bieha) and has about 170 pupils. The facility has received no maintenance in 25 years and is thus in disrepair. This school apparently receives no official school supplies: that which it obtains being provided through the Parent's Association which levies 200 CFA per pupil for this purpose.

Cathwell supplies of corn-meal and powdered milk are provided to the canteen and a volunteer cook, receiving 1,000 CFA a month, prepares a mid-day meal. There being no water, there is no school garden.

About half of sixth year students obtain a graduation certificate and eight, in 1979, attempted the secondary school entrance examination. One of these succeeded in getting a place.

263 The dispensary has no nurse and so a public health worker (actually a distributor of pills) runs the place together with a laborer with some technical skills. They deal with 30 - 35 patients a day. The building is a relatively good one, but suffers from the usual shortage of furniture and supplies. It does, however, have a direct telephone line to Leo.

The maternity, built by the community with some help from Cathwell, has no furniture at all except for a concrete block which serves as an examination/delivery table. There is no equipment either, but the priority of the matron was for some Cathwell food supplies with which to feed her patients.

The ORD subsector had neither office nor store, and its activities appeared very limited. Apparently, a dislike of borrowing and debts had limited the demand for credit, and so too the use of animal traction.

17. Boulkom

Boulkom, with a population of 3,100 (1975) is the central village of the canton of Toleha (pop. 18,000). It is 13 km. northeast of Arbole, on an all-weather track.

The three-classroom school was built in 1958 and contains some 200 students. The parent's association in the village is dynamic. Their annual contribution of 1,500 CFA per student pays for two cooks in the school canteen, transport of canteen supplies from the Cathwell warehouse in Ouagadougou, educational materials other than individual supplies, and furnishings. In the previous year 225,000 CFA had been accumulated to purchase 25 desks in Ouaga. A priority project in the village is the construction of three additional classrooms to form a complete primary school. There is no dispensary in the village and the maternity, staffed by one matron, is in physically average condition.

The village has one extension agent, part of the Arbole ORD subsector, and he works with a union of village groups covering six localities.

18. Kassou

Kassou, scheduled to become an Arrondissement headquarters, contained about 1,400 people in 1975. It is the central village of a canton with the same name having 10,000 inhabitants in 1975, in 38 villages.

There are two routes to Kassou from the Leo-Sabou-Koudougou road. The shorter one requires turning off the road at Tabou and following a dirt track northeast for 23 km. This is a difficult route and is made impassable during the rains by a branch of the Sissili river. A longer and better routing involves turning off at Tekourou and heading due east for 14 km. Kassou's "off-the-beaten track" location has given rise to local opposition to its proposed elevation to Arrondissement headquarters. Preference has been voiced for the village of Gao, mid-way between Leo and Sabou.

The primary school was built in 1952 and is in very dilapidated condition. The three-classroom block contains 173 pupils, with a large proportion of girls. No official supplies are received here. What is obtained comes from Parent's Association voluntary contributions after each harvest -- amounting to 200 - 400 CFA. This is used to transport Cathwell supplies to the school kitchen, built by the students themselves.

There is a dispensary building, but has no nurse and does not function. The maternity does function, but the matron had been away on leave for some time. Both these services were therefore obtained in To, 28 km. away. The OPD subsector does have a modern storehouse here.

Organizationally, the place is relatively weak as well. The cantonal chief exerts little influence over the variety of ethnic and religious groups in the area. There are Nouna, Yarci, Peulh and Mossi peoples here, further subdivided between long-term residents and recent immigrants, and between Catholic, Protestant and Moslem sub-groups.

19. Bingo

With its population of 1,700 (1975), Bingo is the central village of its canton containing some 10,900 inhabitants in ten villages. Other than Bingo the important others are Koulgoufou, Tanghin, Saa and Villa. The village is about 12 km. north of Kokologo, off the main road from Ouagadougou. The track leading to it is motorable the year round.

Bingo is also served by the Abidjan-Niger railroad, being the first regular stop out of Ouagadougou for passenger trains. The train service to and from Ouagadougou appears to be well used, not only by the Bingo people but also by neighboring villages in the cantons of Kokologho and Bousse. Traffic revenues at the Bingo stop average something like 2,000,000 CFA a month. There is a telephone at the railroad stop apparently available for use by the public.

Bingo is not particularly remarkable for its public facilities and services, but it is very interesting from the point of view of cohesion and progressiveness in all of its villages. Everyone of them, for example, has at least one active village group. Also, the Young Farmer Training Centers are very well attended. All the cantonal roads are maintained, to the extent possible, by voluntary communal labor called out by village chiefs responsible for various sections.

The Bingo villages seem to do a lot for themselves, in addition to work on the roads. A Maternity Center has been built by communal labor at Bingo, and a matron is installed. The premises are very modest, but there they are, something where there had been nothing, and all home-made. The village groups at Saa and Tanghin have built quarters for their ORD extension agents, providing free labor and, at Saa, subscribing cash to meet the cost of roofing sheets. There is a small grain store at Bingo for which the ORD provided the cement, and the people did all the work. The ORD extension worker at Bingo happens to be the canton chief, an unusual circumstance which is no detriment to progress. There is also a blacksmith at Saa who turns out whole ploughs, good ones. Saa itself is a great place for vegetable growing in the dry season and its people deal with buyers from as far away as Ouagadougou. Large areas in a valley bottom belonging to Bingo have been allotted by the canton chief to the people of Saa to encourage them in these profitable activities.

The primary school at Bingo is a good example of cantonal organization. It caters to nine of the canton's ten villages (Tanghin has a school of its own), places being allotted to each village at the beginning of the school year. This is done by the canton chief and the headmaster in consultation. An effort is made to make sure that everyone gets at least some sort of look-in. Bingo seemed to be a place capable of managing its affairs remarkably well; which, with a little assistance might get somewhere.

The school has three classrooms and three teachers, and two school-years are accommodated in each room. It is very badly overcrowded. There were 145 pupils in the room allotted to years one and two (we were startled by 80 at Comin Yanga). This room was so full of furniture, that no room was left for aisles, or for the teacher to promenade; and access to the desks at the back of the room was by clambering over the desks in front. Desks built to hold three children are made to accommodate six and desks built for two seat four. Years three and four are represented by 85 pupils in a second room. Years five and six are relatively comfortable, with only 46. Even so something like 200 aspirants have to be turned away every year. Children from Saa and Villa live close enough to Bingo to walk to school and home again every day. Children from other villages lodge with relations in Bingo. There is no difficulty in arranging for this and the school, whatever its deficiencies, is made to serve a cantonal rather than a purely local purpose. This is a pleasant contrast to most other places.

The canton chief has been agitating for a dispensary for the last ten years. The canton does, as mentioned, have a maternity center resulting from its own efforts. It is a very simple establishment.

There are two small rooms each about ten feet square, with adobe walls, good cement floors and a permanent roof. There is a matron/midwife assisted by a voluntary helper from Bingo village.

With respect to ORD involvement, Bingo has apparently been receiving very favorable treatment in the allocation of agricultural credit from the subsector at Kokologo, and there has reportedly been a good deal of progress with regard to animal traction.

Some of the village groups are beginning to get into cooperative marketing activities. As yet they have no storage facilities of their own, so they have been using the ORD warehouse at Kokologho. Unhappily a truck ran into this warehouse recently, doing so much damage that the place is now out of service.

The canton chief had no doubt about the order of his priorities: first and foremost the dispensary; second more wells, sufficiently deep ones, starting with Bingo, Saa, and Koanga; next, three more classrooms for the Bingo school; and finally, a vegetable marketing cooperative for Saa.

One additional feature of the area is a blacksmith at Saa, trained in the Centre de Formation de l'Artisanat Rural at Ouagadougou. He was trained for repairs, but in fact makes whole donkey ploughs at competitive prices. His equipment is simple: a small anvil, a charcoal-fueled forge, with a hand-turned blower, and a vice. All this was obtained with a loan from the Center at Ouagadougou. He still needs drilling and welding equipment, and if he had them he could avoid journeys to Ouagadougou to drill necessary bolt holes and weld his work. He also needs a good stock of steel. He buys frequently and in small quantities from the Center because he trusts the Center's quality much more than that of private dealers. On the prices he mentioned, it appeared that he would need about 50,000 CFA for purchase of an adequate stock. His premises are extremely simple, constructed by himself in adobe, and are too small to accommodate the additional equipment he wants. The ORD has shown some interest in providing him with a better place but has not yet done anything about it.

20. Poa

Poa, with 4,200 inhabitants, is the central village of its canton containing some 21,200 people (1975). Besides Poa, the main communities are Ralo, Loaya, Gogo, Yaoghin, Nyangado, and Yargo-Yarces. Poa and Ralo are on the main highway from Ouagadougou to Koudougou, and the other villages are served by dry-weather roads leading off of it. Nyangado is also served by a railroad stop.

Road maintenance, except at Poa and Ralo, depends entirely on the efforts of the communities concerned. So does new school construction. The people of Poa are putting up a new classroom and teachers' quarters, still uncompleted, and Ralo is putting up a house for a teacher in the hope of getting a school. Poa provided free labor for the three

existing teachers' quarters.

Poa has the only primary school in the canton, built in 1955, and there are three classrooms. A fourth classroom is under construction. Labor is being contributed by the community (the mason giving his work free) while materials have been donated by Poa's "twin town," Vandoeuvre, near Nancy, France. However, so far Poa has received insufficient roofing sheets, and no nails, doors or windows; and in any event work has been suspended during the farming season. Vandoeuvre also provided cement and bamboo beds for the Maternity clinic.

After 25 years without any maintenance, the school is extremely shabby. Windows and doors are in dreadful shape, the ceilings have perished, and everywhere the termites have done their work. There have never been any replacements for the original furniture, and most of it is not now repairable.

Parents contribute to school supplies at the rate of 500 CFA a child a year to buy exercise books, writing materials and ardoisine. The supplies which the school gets from the Ministry of Education are very limited. Yet the school does well, at least by comparative standards. Of a final class of 36 students in 1979, 14 were presented for the secondary school examinations and six of the 14 won places. This is unusual since a couple is as good as most schools manage to do.

The school does have a canteen, staffed by two cooks, who are paid small honoraria raised from parents at the rate of 25 CFA a child. Each of the cooks make about 2,000 CFA for the whole of the school year, so they can be counted among the volunteers. The cost of transporting the corn-meal from Ouagadougou, which falls upon the school, can be almost half as much as the meal itself. Some schools simply cannot afford to take advantage of it.

The Poa dispensary was built by the community, with some assistance from other sources in the shape of roofing sheets and cement. Basically it is a good, solid building, though the roof and windows could do with repairs, and the whole place, like every other government facility in the rural areas, needs a fresh coat of paint. The main building consists of four rooms and a store. There is one other building, also consisting of four rooms and a store, intended for the accommodation of up to twelve serious cases held at the dispensary for observation. This building too is of sound construction, though the rooms have no ceilings and no beds.

The dispensary serves all the villages of the canton except Cogo. In addition it attracts patients from some of the Thyou villages, including Nabadogo, from nearby villages in little canton, like Villy, from a few villages in Ramonho canton and Kokolocho canton, and even from the south-western areas of Boussie, conceivably serving a population of from 30,000 to 35,000. The dispensary receives, on an average, about 60 new patients every day and about 100 old ones.

Cases beyond the nurse's capacity are sent on to the hospital at Koudougou. There are two ambulances at Koudougou, both very old and sometimes out of service and, when in service, since they serve a very large area they do not always come to Poa when they are wanted. Poa patients contribute 20 liters of gasoline for the 31 kilometer journey to Koudougou, and there is no other charge. They are well off compared with the sick in most other places.

The nurse is assisted by a skilled laborer paid from the Departmental budget. There is no public health worker; lepers in this area are visited and treated by agents who operate out of Koudougou. The nurse complained, as most do, of the lack of technical equipment and furniture in the dispensary. He had no stethoscope. There is not a single chair in the dispensary and no examination tables. Instead of the latter, he uses a traditional-style reclining stool donated by the canton chief. He also complained, and also as usual, of the lack of drugs. For the most part all he can do is hand out prescriptions to be filled by private pharmacists at Ouagadougou or Koudougou.

The Maternity Clinic is another perfectly respectable building, much better than most. One room in the building is occupied by the Matron since the nurse has taken over her own living quarters -- and let it be said that neither she nor he nor anyone else saw anything wrong in this -- and there is nothing else to offer in Poa. The Matron used to have a voluntary helper, a traditional mid-wife from Poa who received a stipend of 2,500 CFA from the sub-prefecture every month. This stipend has been withdrawn in the interests of economy, and the voluntary helper has withdrawn too. People in Poa, it appears, do not in the least mind working for very little, but there must be something, some recognition of their efforts. It is a matter of professional pride. Perfectly understandable.

The matron therefore on her own takes care of from thirty to thirty-five births a month, expectant mothers coming from the same area as that served by the dispensary. She too complained of the lack of equipment (basins and bed-pans, cradles, a balance, mattresses) and drugs. The nurse shares with her what he gets but he does not always receive what his colleague needs, cotton-wool, alcohol, etc. The Matron would dearly like to have some clothing to wrap the newborn babies up in. Some supplies (both for the dispensary and the maternity clinic) come from the Ministry of Health, in principle, every three months. In addition the sub-prefecture allocates a little money for medical supplies -- presumably through the Treasury of the Prefecture -- but these supplements are quite limited and arrive irregularly.

Maintenance of all public facilities in the canton is the responsibility of the sub-prefect at Sabou. With the best will in the world he cannot do much about it because he lacks the staff, the funds and the materials. There are two carpenters at Poa and there are also masons, and the canton chief is sure that the canton could readily undertake its own maintenance work if it were given a budget for that purpose. As it is the two Poa carpenters do not have enough work to keep them busy, though there is plenty of work to be done.

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 The canton secretary, who is the canton chief's son, receives a stipend from the Departmental budget. He has no office. His duties are concerned with tax collection, the up-dating of the census, the distribution of the canton's mails, the general business of the canton, the organization of meetings and the issuing of Government and cantonal notices. The postal stop, he said, still functions at Poa -- which is unusual -- mail being delivered fairly regularly every Monday; but people who want to write can no longer buy stamps from the mail driver as they used to be able to do. For identity cards, birth certificates, and all legal matters the people of Poa have to trudge to Sabou. A curious thing to note: a man from Poa can only get his identity card at Sabou; but he can only buy the fiscal stamps to put on it at Koudougou. So he makes at least two expensive journeys, and perhaps three or four, to accomplish this relatively simple, necessary and regular operation.

There are village groups at Poa, Loaga and Yaoghin, the last two active and prospering. The one at Poa is doing less well. There is at present no ORD extension agent in the canton, the last one having been transferred without any replacement. Nevertheless a good harvest was expected in 1980, though many of the fields looked patchy, and showed uneven growth. The chief attributed this to the brief dry period, two or three weeks, which followed the first sowing, causing many families to sow parts of their fields a second time. The canton has many valley bottoms suitable for development; but vegetable production is only just beginning here with a little onion, tomato, lettuce and cabbage.

21. Todin

Todin, with a population of about 1,600 (1975), is the central village of a canton of the same name containing 6,200 people; 25 km. west of Yako.

The primary school consists of three buildings. One, very old, is falling apart. The others, built in 1960 and 1969, have received no maintenance and are in about average condition. The school canteen works well, even though an allocation of supplies from Cathwell has not yet been received.

The dispensary and maternity, in average condition and short of the usual equipment and supplies, are staffed by two nurses, a technician and a matron.

22. Tindilla

Tindilla, a village of about 1,200 people (1975) in the canton of Yako located on a dry season track, houses a Young Farmer's Training Center. The center was financed in 1976 as part of the World Bank's Education Project I and is well equipped and in good condition. It contains 65 students.

An interesting characteristic of this village is its long history of dedication to truck farming during the dry season. The group of 37 truck farmers of Tindilla has been among the best producer of fruits and vegetables in the entire region. In 1970 it won first prize at the fair at Ouahigouya, and again in 1971 at Yako. Since 1977 however, the farmers have been discouraged because of difficulties in marketing their output. Not admitted yet to membership in the UVOCAM regional marketing cooperative, their produce is disposed of in the more local markets of Yako, Todin and Koudougou; where prices tend to be lower than at Ouagadougou. The group's priorities for projects included motor pumps, lining of important wells, fencing material and a truck.